



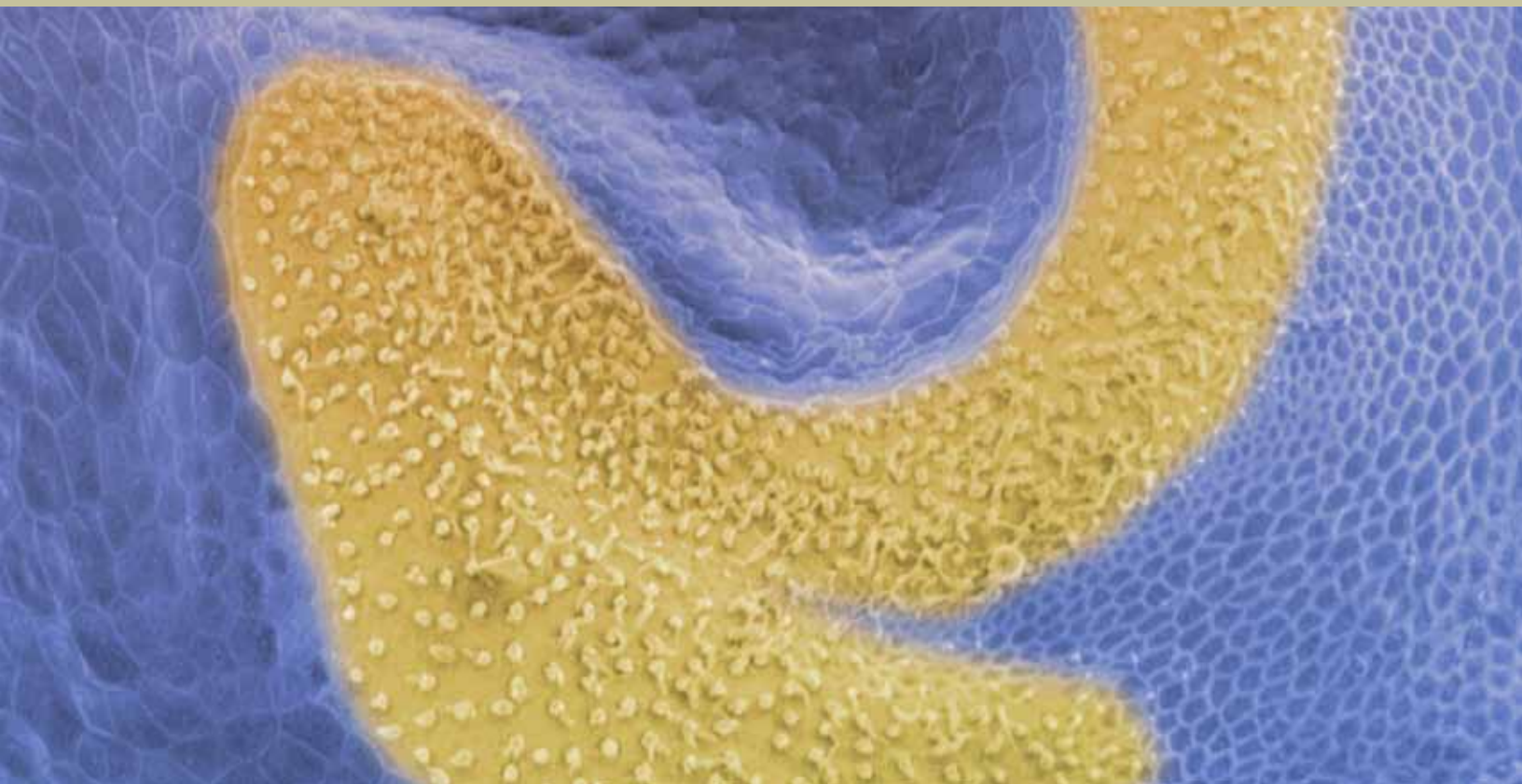
NEUROSCIENCE 2012

SOCIETY FOR NEUROSCIENCE

MONDAY PROGRAM

NEW ORLEANS
OCTOBER 15, 2012

SCIENTIFIC SESSION LISTINGS
302 – 508



INFORMATION AT A GLANCE

IMPORTANT PHONE NUMBERS

Annual Meeting Headquarters Office —

Logistics and Programming

Logistics

Morial Convention Center: Hall E
(504) 670-4600

Programming

Morial Convention Center: Hall E
(504) 670-4605

Society Executive Lounge

Morial Convention Center: Room G-114
(504) 670-4640

Annual Meeting Information Booths

Morial Convention Center:
Hall E: (504) 670-4617
Lobby D: (504) 670-4615
Lobby H: (504) 670-4616

Press Office

Morial Convention Center:
Press Room, 252
Press Conference Room, 256
Press Interview Room, 255
(504) 670-4630

Exhibit Management

Morial Convention Center: I-119
(504) 670-4650

First Aid and Hospital Numbers

First Aid Room, Lobby F and Lobby H
(504) 582-3040

Tulane Medical Center
1415 Tulane Avenue
New Orleans, LA 70112
(504) 988-5800

Key to Poster Floor by Themes

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

Theme

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

NOTE: Theme H Posters will be on display in Hall J beginning at 1 p.m. on Saturday, October 13, and will remain posted until 5 p.m. on Sunday, October 14. One-hour presentation times will occur either Saturday afternoon or Sunday morning.

Cover Image: A scanning electron micrograph of the surface of the amphibian papilla showing hair cells (yellow) in the sensory epithelium. The diffusion barriers created by the synaptic ribbon and its vesicles may play a key role in synchronizing vesicle release.

Cole W. Graydon, Soyoun Cho, Geng-Lin Li, Bechara Kachar, and Henrique von Gersdorff, 2011, *The Journal of Neuroscience*, 31: 16637-16650

MONDAY HIGHLIGHTS

 Preregistration Required  Course Fee  Professional Development  Networking  Public Outreach

DYNAMIC POSTER PRESENTATION Theme F: Neuronal Circuits for Expression of Active Versus Passive Defensive Behaviors

Presenter: Philip Tovote, PhD

8 a.m. – 12 p.m.

Morial Convention Center: Hall I, Poster Row JJ

SPECIAL LECTURE Super-Resolution Fluorescence Microscopy and Applications to Neuroscience CME

Xiaowei Zhuang, PhD

Harvard University, Howard Hughes Medical Institute

8:30 – 9:40 a.m.

Morial Convention Center: Hall D

Collaboration and Multi-PI Science

Organizer: Elba Serrano, PhD

Panelists: Gay Holstein, PhD; Diego Restrepo, PhD; Bruce Ransom, MD, PhD; Alan Sved, PhD

8:30 – 10:00 a.m.

Morial Convention Center: 353

SYMPOSIUM Brain States and Cortical Function CME

Chair: Matteo Carandini, PhD

8:30 – 11 a.m.

Morial Convention Center: La Nouvelle A

SYMPOSIUM Cracking Neural Codes With Photons: Optogenetics as an Integral Tool for Systems Neuroscience CME

Chair: Mark J. Schnitzer, PhD

Co-chair: Karl Deisseroth, MD, PhD

8:30 – 11 a.m.

Morial Convention Center: 345

MINISYMPOSIUM Insulin and GLP-1 Analogues as Novel Strategies to Treat Neurodegenerative Disorders CME

Chair: Christian Holscher, PhD

8:30 – 11 a.m.

Morial Convention Center: New Orleans Theater A

MINISYMPOSIUM The Reemergence of Schemas in Memory Research: From Encoding to Reconsolidation CME

Chair: Marlieke T. van Kesteren, MSc

Co-chair: Richard N. Henson, PhD

8:30 – 11 a.m.

Morial Convention Center: New Orleans Theater C

SYMPOSIUM New Insights Into Proteasomal and Autophagy-Lysosomal Pathways in Neurodegenerative Disease CME

Chair: Teepu Siddique, MD

8:30 – 11 a.m.

Morial Convention Center: La Nouvelle C

SYMPOSIUM Treatment of Developmental Disorders in Adulthood CME

Chair: Eero Castren, MD, PhD

Co-chair: Randi Hagerman, MD

8:30 – 11 a.m.

Morial Convention Center: New Orleans Theater B

Animals in Research Panel: How Researchers Can (and Should) Talk About Their Work

Organizer: Sharon L. Juliano, PhD

Panelists: Dario Ringach, PhD; Tom Whipple;

Lisa Newbern; David Friedman, PhD

9 – 11 a.m.

Morial Convention Center: 283

Teaching Neuroscience: Connecting to the Humanities and Social Sciences

Organizer: Richard F. Olivo, PhD

Panelists: Martha Farah, PhD; Scott A. Huettel,

PhD; Paul Lennard, PhD; Hewlett McFarlane, PhD;

Betty Zimmerberg, PhD

9 – 11:30 a.m.

Morial Convention Center: 356

DAVID KOPF LECTURE ON NEUROETHICS The Impact of Neuroscience on Society— The Neuroethics of “Smart Drugs”

Barbara J. Sahakian, PhD

University of Cambridge

10 – 11:10 a.m.

Morial Convention Center: Hall D

Support contributed by: David Kopf Instruments

SPECIAL LECTURE Going to Hell in a Handbasket: Molecular Weakening of Prefrontal Cortical Regulation During Stress CME

Amy F.T. Arnsten, PhD

Yale University School of Medicine

11:30 a.m. – 12:40 p.m.

Morial Convention Center: Hall D

Graduate School Fair

Sunday, Oct. 14, and Monday, Oct. 15, noon – 1 p.m.

Morial Convention Center: Hall E

SPECIAL PRESENTATION The Changing Global Neuroscience Ecosystem: Why It Matters to Our Future

Steven E. Hyman, MD

Broad Institute of MIT and Harvard

1 – 2 p.m.

Morial Convention Center: New Orleans Theater B

Industrial Collaboration

Organizer: Verity J. Brown, PhD

Panelists: Ana Garcia Aguirre, PhD;

Alan Horsager, PhD; Joseph Sweeney, PhD;

Mark Tricklebank, PhD

1 – 3 p.m.

Morial Convention Center: 353

DYNAMIC POSTER PRESENTATION Theme F: NMDAR-Dependent Increase in Calcineurin in the Basolateral Amygdala Governs the Transition From Reconsolidation to Extinction of Fear Memory

Presenter: Emiliano Merlo, PhD

1 – 5 p.m.

Morial Convention Center: Hall I, Poster Row JJ

MINISYMPOSIUM Breaking Dopamine Systems: A New GABA Master Structure for Mesolimbic and Nigrostriatal Functions CME

Chair: Michel Barrot, PhD

1:30 – 4 p.m.

Morial Convention Center: New Orleans Theater C

MINISYMPOSIUM Inhibition of Fear by Learned Safety Signals CME

Chair: John P. Christianson, PhD

1:30 – 4 p.m.

Morial Convention Center: 345

SYMPOSIUM Hebb Recovers From a Stroke: Activity-Dependent Plasticity, Circuit Reorganization, and Neural Repair in Cortex After Focal Ischemia CME

Chair: S. Thomas Carmichael, MD, PhD

1:30 – 4 p.m.

Morial Convention Center: La Nouvelle C

MINISYMPOSIUM The Human Subthalamic Nucleus in Health and Disease: Insights From Translational Neuroscience CME

Chair: Birte U. Forstmann, PhD

Co-chair: Bogdan Draganski, MD

1:30 – 4 p.m.

Morial Convention Center: New Orleans Theater A

SYMPOSIUM Promoting Oligodendrocyte Differentiation and Myelin Regeneration CME

Chair: Wenbin Deng, PhD

Co-chair: Mahendra S. Rao, MD, PhD

1:30 – 4 p.m.

Morial Convention Center: La Nouvelle A

Making the Most of Your International Training

Organizer: Michael Zigmond, PhD

Panelists: Willie Daniels, PhD, MBA;

Beth Fischer, PhD; Shigang He, PhD;

Vijayalakshmi Ravindranath, PhD;

Gonzalo Torres, PhD; Joseph Whittaker, PhD

2 – 5 p.m.

Morial Convention Center: 356

ALBERT AND ELLEN GRASS LECTURE
The Collective Wisdom of Neurons CME

Larry Abbott, PhD

Columbia University

3:15 – 4:25 p.m.

Morial Convention Center: Hall D

Support contributed by: The Grass Foundation

PRESIDENTIAL SPECIAL LECTURE
Circuit Tuning During Developmental
Critical Periods CME

Carla Shatz, PhD

Stanford University

5:15 – 6:25 p.m.

Morial Convention Center: Hall D

Support contributed by: Pfizer, Inc.

SfN-Sponsored Socials

6:45 – 8:45 p.m.

Hilton Riverside Meeting Rooms

See Page X

PLAN TO ATTEND

Tuesday, Oct. 16

DYNAMIC POSTER

PRESENTATION

Theme E: Evaluating the
Communicative Value of
Ultrasonic Mouse Pup Calls

Presenter: Zahra Adahman

8 a.m. – 12 p.m.

Morial Convention Center: Hall I, Poster Row JJ

SPECIAL LECTURE
Alzheimer Mechanisms and
Therapeutic Strategies CME

Lennart Mucke, MD

University of California, San Francisco

10 – 11:10 a.m.

Morial Convention Center: Hall D

SPECIAL LECTURE
Large-Scale Brain Networks:
Principles and Emerging
Methodologies CME

Nikos Logothetis, PhD

Max Planck Institute for Biological Cybernetics

1 – 2:10 p.m.

Morial Convention Center: Hall D

DYNAMIC POSTER

PRESENTATION

Theme G: Three-Dimensional
Neurophenotyping of Adult
Zebrafish Behavior: Updates,
Achievements and Future Directions

Presenter: Jonathan Cachat

1 – 5 p.m.

Morial Convention Center: Hall I, Poster Row JJ

HISTORY OF NEUROSCIENCE

LECTURE

The Emergence of Contemporary
Pain Neuroscience

Lorne M. Mendell, PhD

SUNY Stony Brook University

2:30 – 3:40 p.m.

Morial Convention Center: Hall D

PRESIDENTIAL SPECIAL

LECTURE

Prenatal Exposure Modulates
Language Attunement in Infancy
CME

Janet F. Werker, PhD

The University of British Columbia

5:15 – 6:25 p.m.

Morial Convention Center: Hall D

Support contributed by: Genzyme

CHRONOLOGICAL LIST OF MONDAY SESSIONS

Theme Descriptions

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

All Posters will be presented in the Morial Convention Center, Halls F – J. All lecture, symposia, minisymposia, and nanosymposia rooms are in the Morial Convention Center.

Note: Theme H Posters will be on display in Hall J beginning at 1 p.m. on Saturday, October 13, and will remain posted until 5 p.m. on Sunday, October 14. One-hour presentation times will occur either Saturday afternoon or Sunday morning.

| SESSION NUMBER | SESSION TITLE | PRESENTATION TYPE | POSTER BOARD NUMBER | LOCATION | DATE | SESSION TIME | CME HOURS |
|-------------------------------------|--|--|---------------------|-----------------------|--------|-------------------------|-----------|
| Featured Programs | | | | | | | |
| 302 | Super-Resolution Fluorescence Microscopy and Applications to Neuroscience | <i>Special Lecture</i> | | Hall D | 15 Mon | 8:30 – 9:40 a.m. | 1.25 |
| 303 | Treatment of Developmental Disorders in Adulthood | <i>Symposium</i> | | New Orleans Theater B | 15 Mon | 8:30 – 11 a.m. | 2.5 |
| 304 | Brain States and Cortical Function | <i>Symposium</i> | | La Nouvelle A | 15 Mon | 8:30 – 11 a.m. | 2.5 |
| 305 | New Insights Into Proteasomal and Autophagy-Lysosomal Pathways in Neurodegenerative Disease | <i>Symposium</i> | | La Nouvelle C | 15 Mon | 8:30 – 11 a.m. | 2.5 |
| 306 | Cracking Neural Codes with Photons: Optogenetics as an Integral Tool for Systems Neuroscience | <i>Symposium</i> | | 345 | 15 Mon | 8:30 – 11 a.m. | 2.5 |
| 307 | Insulin and GLP-1 Analogues as Novel Strategies to Treat Neurodegenerative Disorders | <i>Minisymposium</i> | | New Orleans Theater A | 15 Mon | 8:30 – 11 a.m. | 2.5 |
| 308 | The Reemergence of Schemas in Memory Research: From Encoding to Reconsolidation | <i>Minisymposium</i> | | New Orleans Theater C | 15 Mon | 8:30 – 11 a.m. | 2.5 |
| 309 | The Impact of Neuroscience on Society — The Neuroethics of “Smart Drugs” | <i>David Kopf Lecture on Neuroethics</i> | | Hall D | 15 Mon | 10 – 11:10 a.m. | |
| 310 | Going to Hell in a Handbasket: Molecular Weakening of Prefrontal Cortical Regulation During Stress | <i>Special Lecture</i> | | Hall D | 15 Mon | 11:30 a.m. – 12:10 p.m. | 1.25 |
| Nanosymposia (8 a.m. – noon) | | | | | | | |
| 311 | Axon Guidance Mechanisms | <i>Nanosymposium</i> | | 391 | 15 Mon | 8 – 11:30 a.m. | |
| 312 | Transplantation and Regeneration | <i>Nanosymposium</i> | | 395 | 15 Mon | 8 – 10:45 a.m. | |
| 313 | Abeta Assembly and Deposition I | <i>Nanosymposium</i> | | 262 | 15 Mon | 8 – 10:30 a.m. | |
| 314 | Parkinson's Disease: Synuclein, Parkin, PINK and Stem Cells | <i>Nanosymposium</i> | | 277 | 15 Mon | 8 – 11:15 a.m. | |
| 315 | Brain Trauma: Animal Models and Human Studies I | <i>Nanosymposium</i> | | 288 | 15 Mon | 8 – 10:30 a.m. | |
| 316 | Multisensory Processing: Clinical Populations | <i>Nanosymposium</i> | | 273 | 15 Mon | 8 – 10:30 a.m. | |
| 317 | Extrastriate Cortex: Functional Organization Faces and Objects | <i>Nanosymposium</i> | | 383 | 15 Mon | 8 – 11:45 a.m. | |
| 318 | Thalamic and Cortical Processing II | <i>Nanosymposium</i> | | 388 | 15 Mon | 8 – 10:30 a.m. | |
| 319 | Perception and Imagery: Neural Bases | <i>Nanosymposium</i> | | 291 | 15 Mon | 8 – 11 a.m. | |
| 320 | Human Long-Term Memory: Encoding and Retrieval I | <i>Nanosymposium</i> | | 393 | 15 Mon | 8 – 11:15 a.m. | |
| 321 | Timing and Temporal Processing I | <i>Nanosymposium</i> | | 387 | 15 Mon | 8 – 11:30 a.m. | |
| 322 | Novel Electrophysiological Methods II | <i>Nanosymposium</i> | | 268 | 15 Mon | 8 – 11:15 a.m. | |

| SESSION NUMBER | SESSION TITLE | PRESENTATION TYPE | POSTER BOARD NUMBER | LOCATION | DATE | SESSION TIME | CME HOURS |
|--------------------------------|---|-------------------|---------------------|-------------------|--------|---------------|-----------|
| Posters (8 a.m. – noon) | | | | | | | |
| 323 | Cortical Development II | Poster | A1-A26 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 324 | Postnatal Neurogenesis: Environmental and Pharmacological Regulation | Poster | A27-A55 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 325 | Synapse Formation: Cellular Mechanisms | Poster | A56-B4 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 326 | Activity-Dependent Changes in Connectivity | Poster | B5-B32 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 327 | Monoamines | Poster | B33-B62 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 328 | Nicotinic Receptors: Physiology and Function I | Poster | B63-C9 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 329 | Nicotinic Receptors: Regulation, Function, and Trafficking | Poster | C10-C32 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 330 | Potassium Channels | Poster | C33-C45 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 331 | Calcium Activated Potassium Channels | Poster | C46-C60 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 332 | Glutamate Transporters | Poster | C61-D14 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 333 | Neurotransmitter Release: Fusion and Docking | Poster | D15-D35 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 334 | Neurotransmitter Release: Synaptic Vesicle Recycling and Calcium Dependence | Poster | D36-D59 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 335 | Synaptic Integration II | Poster | D60-E13 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 336 | Long-Term Depression II | Poster | E14-E30 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 337 | Synaptic Plasticity: Structural Plasticity III | Poster | E31-E48 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 338 | Oscillations and Synchrony: Hippocampus | Poster | E49-E59 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 339 | Oscillations and Synchrony: Gabaergic Interneurons | Poster | E60-F1 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 340 | Intrinsic Membrane Properties: Dendritic and Synaptic Integration I | Poster | F2-F21 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 341 | Glia-Neuron Interactions: Microglia | Poster | F22-F40 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 342 | Glia-Neuron Interactions: Oligodendrocytes | Poster | F41-G9 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 343 | APP/Abeta: Animal Models I | Poster | G10-G35 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 344 | Alzheimer's Disease: Beta and Gamma Secretase, BACE and Presenilin I | Poster | G36-H18 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 345 | Cognitive Function | Poster | H19-I11 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 346 | ALS Therapy Development | Poster | I12-K6 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 347 | TDP-43 Animal and Cell Culture Models | Poster | K7-L16 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 348 | Down Syndrome | Poster | L17-M10 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 349 | Epilepsy: Epileptogenesis | Poster | M11-N17 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 350 | Ischemia: Molecular Mechanisms II | Poster | N18-O19 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 351 | Ischemia: Recovery | Poster | O20-Q3 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 352 | Trauma: Peripheral Nerve | Poster | Q4-R2 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 353 | Neuroinflammation: Molecular Mechanisms I | Poster | R3-S8 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 354 | Neurotoxicity and Neurodegeneration II | Poster | S9-T18 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 355 | Neuroinflammation: HIV and Infection I | Poster | T19-U13 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 356 | Brain Imaging Alterations in Schizophrenia and Other Psychoses I | Poster | U14-V16 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 357 | Molecular Outcomes in Tissue from Schizophrenia | Poster | V17-W19 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 358 | Biomarkers in Major Depressive Disorder | Poster | W20-Y6 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 359 | Anxiety Disorders: Experimental Therapeutics | Poster | Y7-Y16 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 360 | Amphetamines and MDMA: Toxicity | Poster | Y17-AA1 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 361 | Stress and Addiction | Poster | AA2-BB4 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 362 | CNS Depressants, Neuropeptides, and Behavior | Poster | BB5-CC6 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 363 | Cochlea: Cellular Properties | Poster | CC7-CC17 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 364 | Auditory System: Networks | Poster | CC18-EE2 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 365 | Auditory System: Modulation | Poster | EE3-FF2 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 366 | Auditory System: Representation, Organization and Plasticity | Poster | FF3-GG7 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 367 | Auditory System: Responses and Modulation | Poster | GG8-HH13 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |

| SESSION NUMBER | SESSION TITLE | PRESENTATION TYPE | POSTER BOARD NUMBER | LOCATION | DATE | SESSION TIME | CME HOURS |
|--------------------------------|---|-------------------|---------------------|-------------------|--------|---------------|-----------|
| Posters (8 a.m. – noon) | | | | | | | |
| 368 | Auditory System: Behavior and Modeling | Poster | HH14-JJ3 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 369 | Multisensory Processing: Temporal Factors | Poster | JJ4-KK10 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 370 | Eye Movements and Perception | Poster | KK11-LL7 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 371 | Eye Movement Control: Cerebellum and Final Motor Pathway | Poster | LL8-LL17 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 372 | Saccades: Behavioral Studies | Poster | LL18-MM19 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 373 | Saccades: Neural Circuitry and Models | Poster | MM20-OO4 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 374 | Smooth Eye Movements: Pursuit and OKR | Poster | OO5-OO17 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 375 | Spinal Cord Processing | Poster | OO18-QQ4 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 376 | Pain Models: Behavior | Poster | QQ5-RR14 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 377 | Somatosensory: Local Circuitry | Poster | RR15-SS16 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 378 | Spinal Cord Injury: Plasticity II | Poster | SS17-TT18 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 379 | Cerebellum: Behavior and Plasticity | Poster | TT19-UU20 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 380 | Basal Ganglia: Systems Physiology II | Poster | VV1-WW6 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 381 | Voluntary Movement: Neuroimaging | Poster | WW7-XX14 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 382 | HPG Axis: GnRH Neurons and Gonadotropins - Neural Control I | Poster | XX15-YY7 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 383 | Steroids and Plasticity | Poster | YY8-ZZ9 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 384 | Sexual Differentiation | Poster | ZZ10-AAA9 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 385 | Social Behavior III: Gene Expression and Other Variables | Poster | AAA10-BBB9 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 386 | Hormones and Cognition II: Stress, EDC's, LH | Poster | BBB10-BBB23 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 387 | Autonomic Control of Cardiovascular Functions I | Poster | BBB24-BBB42 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 388 | Early Life Experience: Prenatal Stress, Maternal Effects | Poster | BBB43-CCC17 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 389 | Hypothalamic Mechanisms | Poster | CCC18-CCC44 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 390 | Executive Function: Connectivity and Networks | Poster | CCC45-CCC65 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 391 | Emotion: Face Processing | Poster | CCC66-CCC79 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 392 | Cognitive Development in Normal and Atypical Children | Poster | CCC80-DDD12 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 393 | Individual Differences I | Poster | DDD13-DDD39 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 394 | Cognitive Learning and Memory Systems II | Poster | DDD40-DDD69 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 395 | Fear Learning and Extinction: Amygdala, Hippocampus, and PFC | Poster | DDD70-EEE4 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 396 | Appetitive and Drug Memory Reconsolidation and Extinction | Poster | EEE5-EEE22 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 397 | Learning and Memory: Hippocampal Circuits I | Poster | EEE23-EEE52 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 398 | Reward: Motivational Mechanisms | Poster | EEE53-EEE78 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 399 | Neural Processing of Fear and Anxiety I | Poster | EEE79-FFF17 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 400 | Motivation and Emotions: Negative Emotional States | Poster | FFF18-FFF38 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 401 | Motivation and Emotion: Animal Social Communication | Poster | FFF39-FFF50 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 402 | Motivation and Emotions: Human and Primate Social Communication | Poster | FFF51-FFF73 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 403 | Novel High Resolution Imaging Approaches | Poster | FFF74-FFF84 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |
| 404 | Novel Anatomical Methods II | Poster | GGG1-GGG22 | Posters Halls F-J | 15 Mon | 8 a.m. – noon | |

| SESSION NUMBER | SESSION TITLE | PRESENTATION TYPE | POSTER BOARD NUMBER | LOCATION | DATE | SESSION TIME | CME HOURS |
|----------------------------------|--|---------------------------------------|---------------------|-----------------------|--------|------------------|-----------|
| Featured Programs | | | | | | | |
| 405 | The Changing Global Neuroscience Ecosystem: Why It Matters To Our Future | <i>Special Presentation</i> | | New Orleans Theater B | 15 Mon | 1 – 2 p.m. | |
| 406 | Promoting Oligodendrocyte Differentiation and Myelin Regeneration | Symposium | | La Nouvelle A | 15 Mon | 1:30 – 4 p.m. | 2.5 |
| 407 | Hebb Recovers From a Stroke: Activity-Dependent Plasticity, Circuit Reorganization, and Neural Repair in Cortex After Focal Ischemia | <i>Symposium</i> | | La Nouvelle C | 15 Mon | 1:30 – 4 p.m. | 2.5 |
| 408 | The Human Subthalamic Nucleus in Health and Disease: Insights from Translational Neuroscience | <i>Minisymposium</i> | | New Orleans Theater A | 15 Mon | 1:30 – 4 p.m. | 2.5 |
| 409 | Braking Dopamine Systems: A New GABA Master Structure for Mesolimbic and Nigrostriatal Functions | <i>Minisymposium</i> | | New Orleans Theater C | 15 Mon | 1:30 – 4 p.m. | 2.5 |
| 410 | Inhibition of Fear by Learned Safety Signals | <i>Minisymposium</i> | | 345 | 15 Mon | 1:30 – 4 p.m. | 2.5 |
| 411 | The Collective Wisdom of Neurons | <i>Albert and Ellen Grass Lecture</i> | | Hall D | 15 Mon | 3:15 – 4:25 p.m. | 1.25 |
| 412 | Circuit Tuning During Developmental Critical Periods | <i>Presidential Special Lecture</i> | | Hall D | 15 Mon | 5:15 – 6:25 p.m. | 1.25 |
| Nanosymposia (1 – 5 p.m.) | | | | | | | |
| 413 | Signal Propagation | <i>Nanosymposium</i> | | 391 | 15 Mon | 1 – 4:30 p.m. | |
| 414 | Glia-Neuron Interactions: Astrocytes I | <i>Nanosymposium</i> | | 393 | 15 Mon | 1 – 4:15 p.m. | |
| 415 | Alzheimer's Disease: Neuroinflammation II | <i>Nanosymposium</i> | | 395 | 15 Mon | 1 – 4:30 p.m. | |
| 416 | APP/Abeta: Animal Models II | <i>Nanosymposium</i> | | 262 | 15 Mon | 1 – 3:30 p.m. | |
| 417 | Demyelinating Disorders: Molecular and Cellular Mechanisms I | <i>Nanosymposium</i> | | 277 | 15 Mon | 1 – 3:45 p.m. | |
| 418 | Vulnerability to Drug Self-Administration and Addiction | <i>Nanosymposium</i> | | 273 | 15 Mon | 1 – 4:15 p.m. | |
| 419 | Eye Movements: A Window to the Soul of Circuits | <i>Nanosymposium</i> | | 383 | 15 Mon | 1 – 4:30 p.m. | |
| 420 | Hedonic/Reward Circuits and Feeding Mechanisms I | <i>Nanosymposium</i> | | 388 | 15 Mon | 1 – 3:15 p.m. | |
| 421 | Development of Numerical Cognition | <i>Nanosymposium</i> | | 387 | 15 Mon | 1 – 3:15 p.m. | |
| 422 | Neural Circuitry Underlying Anxiety and Processing of Fear | <i>Nanosymposium</i> | | 291 | 15 Mon | 1 – 4:30 p.m. | |
| 423 | MR Imaging Techniques | <i>Nanosymposium</i> | | 268 | 15 Mon | 1 – 4:30 p.m. | |
| 424 | Computational Modeling III | <i>Nanosymposium</i> | | 288 | 15 Mon | 1 – 4 p.m. | |
| Posters (1 – 5 p.m.) | | | | | | | |
| 425 | Neuronal Differentiation Molecular Mechanisms | <i>Poster</i> | A1-A32 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 426 | Postnatal Neurogenesis: Regulation and Temporal/Spatial Patterns I | <i>Poster</i> | A33-A46 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 427 | Stem Cells and IPS II | <i>Poster</i> | A47-B1 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 428 | NMDA and Non-NMDA Receptors: Physiology | <i>Poster</i> | B2-B17 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 429 | Non-NMDA Receptors Structure and Function | <i>Poster</i> | B18-B36 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 430 | Serotonin Receptors | <i>Poster</i> | B37-B51 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 431 | Catecholamine Receptors | <i>Poster</i> | B52-B67 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 432 | Ion Channels and Disease | <i>Poster</i> | B68-C19 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 433 | HCN and Non-Selective Cation Channels | <i>Poster</i> | C20-C30 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 434 | Long-Term Depression III | <i>Poster</i> | C31-C43 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 435 | Intrinsic Membrane Properties: Dendritic and Synaptic Integration II | <i>Poster</i> | C44-C59 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 436 | Abeta Assembly and Deposition II | <i>Poster</i> | C60-C69 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 437 | Alzheimer's Disease and Other Dementias: Tau Biochemistry | <i>Poster</i> | C70-D20 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 438 | Alzheimer's Disease: Neuroinflammation III | <i>Poster</i> | D21-D40 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 439 | Parkinson's Disease: LRRK2 Screens | <i>Poster</i> | D41-D56 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 440 | Parkinson's Disease: Cell Models | <i>Poster</i> | D57-E24 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |

| SESSION NUMBER | SESSION TITLE | PRESENTATION TYPE | POSTER BOARD NUMBER | LOCATION | DATE | SESSION TIME | CME HOURS |
|-----------------------------|--|-------------------|---------------------|-------------------|--------|--------------|-----------|
| Posters (1 – 5 p.m.) | | | | | | | |
| 441 | Parkinson's Disease: LRRK2 Cellular Mechanisms | Poster | E25-E40 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 442 | Other Neurodegenerative Disorders I | Poster | E41-E68 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 443 | Autism: Genetic and Animal Models II | Poster | F1-F25 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 444 | Autism: Environment and Pathology II | Poster | F26-G8 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 445 | Fragile X II | Poster | G9-G33 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 446 | Epilepsy: Animal Models | Poster | G34-H5 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 447 | Epilepsy: Mechanisms of Comorbidities | Poster | H6-H15 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 448 | Epilepsy: Status Epilepticus | Poster | H16-I3 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 449 | Ischemia: Cellular Mechanisms | Poster | I4-J10 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 450 | Spinal Cord Injury: Therapeutic Strategies III | Poster | J11-L2 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 451 | Neuroinflammation: Molecular Mechanisms II | Poster | L3-M3 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 452 | Experimental Therapeutics in Animal Models of Psychosis II | Poster | M4-N4 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 453 | Animal Models of Serious Mental Illness II | Poster | N5-O14 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 454 | Alcohol Reward and Reinforcement | Poster | O15-P16 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 455 | Nicotine Reward and Reinforcement | Poster | P17-Q15 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 456 | Drugs of Abuse and Addiction: Neural Mechanisms II | Poster | Q16-S1 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 457 | Stimulant Drug Abuse: Neural and | Poster | S2-S15 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 458 | Drugs Abuse and Addiction: Genetics | Poster | S16-T13 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 459 | Cocaine and Other Psychostimulants: Toxicity | Poster | T14-U3 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 460 | Auditory System: Animal Model Systems | Poster | U4-V13 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 461 | Auditory System: Disease, Pathology and Drugs | Poster | V14-W3 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 462 | Auditory System: Human and Primate Responses and Organization | Poster | W4-X8 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 463 | Multisensory Processing: Neural Circuits I | Poster | X9-Y13 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 464 | Extrastriate Cortex: Organization and Circuits | Poster | Y14-Z8 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 465 | Extrastriate Cortex: Functional Organization | Poster | Z9-AA8 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 466 | Processing of Contrast | Poster | AA9-BB1 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 467 | Visual Motion: Neural Mechanisms | Poster | BB2-CC4 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 468 | Visual Learning and Categorization | Poster | CC5-CC15 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 469 | Attention: Cognitive and Behavioral Studies | Poster | CC16-DD5 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 470 | Vestibular Central Pathways | Poster | DD6-EE5 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 471 | Nociceptors: Anatomical and Physiological Studies | Poster | EE6-FF8 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 472 | Treatments for Persistent Pain | Poster | FF9-GG10 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 473 | Visceral Pain | Poster | GG11-HH12 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 474 | Stimulus Feature Receptive Fields and Response Properties | Poster | HH13-II6 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 475 | Spinal Cord Injury: Recovery II | Poster | II7-JJ13 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 476 | Arthropod Motor Systems: Cellular Properties | Poster | JJ14-KK9 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 477 | Cerebellum: Cortex and Nuclei | Poster | KK10-LL19 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 478 | Posture and Gait: Kinematics, Muscle Activity, Exercise and Fatigue, Biomechanics | Poster | LL20-NN8 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 479 | Posture and Gait: Afferent Control | Poster | NN9-OO6 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 480 | Brain-Machine Interface: Implanted Electrodes Other Direct Interactions with Neurons | Poster | OO7-PP16 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 481 | Stress and Neuroimmunology | Poster | PP17-QQ12 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 482 | Sexual Behavior: Steroid Control I | Poster | QQ13-RR3 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 483 | Parental Behavior | Poster | RR4-SS7 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 484 | Autonomic Control of Urinary Functions | Poster | SS8-TT7 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 485 | Stress-Modulated Pathways: Hypothalamus, Amygdala and Bed Nucleus II | Poster | TT8-UU8 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |

| SESSION NUMBER | SESSION TITLE | PRESENTATION TYPE | POSTER BOARD NUMBER | LOCATION | DATE | SESSION TIME | CME HOURS |
|--|---|--------------------|---------------------|-------------------|--------|----------------|-----------|
| Posters (1 – 5 p.m.) | | | | | | | |
| 486 | Sleep: Molecular and Cellular Mechanisms | Poster | UU9-VV18 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 487 | Sleep: Systems Disruption | Poster | VV19-XX3 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 488 | Human Visual Perception | Poster | XX4-YY2 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 489 | Human Long-Term Memory: Hippocampal Complex and Related Structures | Poster | YY9-ZZ8 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 490 | Human Long-Term Memory: Encoding | Poster | ZZ9-AAA2 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 491 | Human Cognition and Behavior: Attentional Networks and Function | Poster | AAA3-BBB12 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 492 | Human Cognition and Behavior: Attentional Networks Electrophysiology and Imaging | Poster | BBB13-BBB40 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 493 | Emotion: Information Processing and Neurocircuitry | Poster | BBB41-CCC17 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 494 | Human Decision-Making: Perceptual Processes | Poster | CCC18-CCC41 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 495 | Amygdala and Fear Learning: Molecular Mechanisms | Poster | CCC42-CCC51 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 496 | Neural Circuitry for Fear Learning: Amygdala and Related Structures | Poster | CCC52-CCC74 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 497 | Learning and Memory: Hippocampal Circuits II | Poster | CCC75-DDD22 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 498 | Control of Reward-Seeking and Avoidance Behaviors | Poster | DDD23-DDD52 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 499 | Decision Making: Neurocircuitry and Neuropharmacology | Poster | DDD53-DDD79 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 500 | Neuroethology: Other | Poster | DDD80-EEE10 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 501 | Neuroethology: Sensory Systems I | Poster | EEE11-EEE31 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 502 | Neuroethology: Sensory Systems II | Poster | EEE32-EEE48 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 503 | Neuroethology: Seasonal and Sex Differences | Poster | EEE49-EEE59 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 504 | Novel Electrophysiological Methods III | Poster | EEE60-EEE79 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 505 | Novel Electrophysiological Methods IV | Poster | EEE80-FFF13 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 506 | Data Analysis and Statistics I | Poster | FFF14-FFF42 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 507 | Data Analysis and Statistics II | Poster | FFF43-FFF67 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| 508 | Data Analysis and Statistics III | Poster | FFF68-FFF83 | Posters Halls F-J | 15 Mon | 1 – 5 p.m. | |
| Workshops, Meetings, & Events | | | | | | | |
| W24 | Collaboration and Multi-PI Science | Workshops/Meetings | | 353 | 15 Mon | 8:30 – 10 a.m. | |
| W25 | Animals in Research Panel: How Researchers Can (and Should) Talk About Their Work | Workshops/Meetings | | 283 | 15 Mon | 9 – 11 a.m. | |
| W26 | Teaching Neuroscience: Connecting to the Humanities and Social Sciences | Workshops/Meetings | | 356 | 15 Mon | 9 – 11:30 a.m. | |
| W20-B | Graduate School Fair: Day 2 | Workshops/Meetings | | Hall E | 15 Mon | noon – 1 p.m. | |
| W27 | Industrial Collaboration | Workshops/Meetings | | 353 | 15 Mon | 1 – 3 p.m. | |
| W28 | Making the Most of Your International Training | Workshops/Meetings | | 356 | 15 Mon | 2 – 5 p.m. | |

MONDAY WORKSHOPS, MEETINGS & EVENTS

 Preregistration Required  Course Fee  Professional Development  Networking  Public Outreach

MONDAY, OCT. 15

Collaboration and Multi-PI Science

Organizer: Elba Serrano, PhD

Panelists: Gay Holstein, PhD; Diego Restrepo, PhD; Bruce Ransom, MD, PhD; Alan Sved, PhD

8:30 – 10:00 a.m.

Morial Convention Center: 353

Contact: profdev@sfn.org

Neuroscience straddles many disciplines and great discoveries are often made through collaborations with those outside of the field. Many enter these group efforts on trust alone, only to have the work collapse under pressure. Truly successful collaborations require structured agreements up front. Join the session to explore the nature and structure of collaborative agreements, how to establish them, and what to expect when embarking on these important professional relationships.

Animals in Research Panel: How Researchers Can (and Should) Talk About Their Work

Organizer: Sharon L. Juliano, PhD

Panelists: Dario Ringach, PhD; Tom Whipple; Lisa Newbern; David Friedman, PhD

9 – 11 a.m.

Morial Convention Center: 283

Contact: advocacy@sfn.org

When researchers talk to nonscientific audiences about their work, how often do they mention the role that animals play in their research? What topics and facts resonate with a public audience, and what challenges do researchers confront in explaining responsible animal research? This session will explore the importance of communicating the role of animals in scientific research and how to incorporate the subject when talking to students, the public, and other nonscientific audiences.

Teaching Neuroscience: Connecting to the Humanities and Social Sciences

Organizer: Richard F. Olivo, PhD

Panelists: Martha Farah, PhD; Scott A. Huettel, PhD; Paul Lennard, PhD; Hewlet McFarlane, PhD; Betty Zimmerberg, PhD

9 – 11:30 a.m.

Morial Convention Center: 356

Contact: profdev@sfn.org

Do we know enough about the brain to teach courses that explain aspects of the humanities and social sciences? Would this be an effective route for reaching non-science students? This session will discuss the pitfalls and highlights of teaching courses on the neuroscience of music, art, ethics, philosophy, and economics.

Graduate School Fair

Sunday, Oct. 14, and Monday, Oct. 15, noon – 1 p.m.

Morial Convention Center: Hall E

Contact: profdev@sfn.org

The Society will host its first annual Graduate School Fair, providing prospective students, student advisors, and graduate schools the opportunity to meet face-to-face.

Industrial Collaboration

Organizer: Verity J. Brown, PhD

Panelists: Ana Garcia Aguirre, PhD;

Alan Horsager, PhD; Joseph Sweeney, PhD;

Mark Tricklebank, PhD

1 – 3 p.m.

Morial Convention Center: 353

Contact: profdev@sfn.org

Increasingly we hear that it is important for neuroscientists to collaborate with industry and the private sector. Nevertheless, it is not uncommon to hear from academics that industry funding is “grubby” or applied research is less “pure” than research conducted solely for an academic goal. Additionally, industry scientists often complain they are treated with a lack of respect. In this session, speakers will discuss aspects of this relationship, including: why it’s important to both academics and industry, the different models of interactions, what partners stand to gain from one other, and how mutual respect can be fostered to further our scientific goals.

Making the Most of Your International Training

Organizer: Michael Zigmond, PhD

Panelists: Willie Daniels, PhD, MBA; Beth Fischer,

PhD; Shigang He, PhD; Vijayalakshmi Ravindranath,

PhD; Gonzalo Torres, PhD; Joseph Whittaker, PhD

2 – 5 p.m.

Morial Convention Center: 356

Contact: pdgp@sfn.org

This session will discuss how best to use your experience as a graduate student, postdoctoral trainee, or your sabbatical to move your career forward. Special attention will be paid to maximizing the experience of individuals from developing countries who spend time in a developed country. Issues to be considered include how to select a lab, research questions, and methods that will be of the greatest assistance. Panelists will include advisors and present and former trainees. Time will be provided for small group discussion.

MONDAY SOCIALS

MONDAY, OCT. 15, 6:45 – 8:45 P.M.

Alzheimer's Disease Social Purely Social

Hilton Riverside: Magnolia

Chair: Salvatore Oddo

Co-Chair: Mathew M. Blurton-Jones

Do you want to have fun? Do you want the opportunity to meet old friends or new collaborators in the field? Do you want to increase your networking skills? Do you want to discuss new professional opportunities? Just join your fellow Alzheimer's disease scientists for a night of relaxation, entertainment, socialization, and excitement. You will have the opportunity to do all the above and more, much more. Everyone is welcome, especially graduate students and post-doctoral fellows.

Behavioral Neuroendocrinology Social Social with Brief Presentation

Hilton Riverside: Melrose

Chair: Jeffrey D. Blaustein

Co-Chair: Staci D. Bilbo

Guests: The winner of Frank Beach Award from the Society for Behavioral Neuroendocrinology

Come meet friendly colleagues with an interest in hormones. Whether you are new to the field or an old timer, this is a fun opportunity to socialize with others interested in those oh-so-powerful molecules. This is a social occasion at which the winner of the Society for Behavioral Neuroendocrinology's 2012 Frank A. Beach Award will be announced.

Developmental Neurobiology Social Purely Social

Hilton Riverside: Newberry

Chair: Joseph LoTurco

Join top researchers in the field for an evening of relaxed, informal conversations on your favorite topics in developmental neurobiology. Meet old friends, make new friends, or discuss professional opportunities. All are welcome!

Faculty for Undergraduate Neuroscience Social

Social with Poster Session

Hilton Riverside: Grand Salon ABC

Chair: Shelly Dickinson

Guests: E. Reynolds, N. Sandstrom

Socialize and exchange ideas with others interested in undergraduate neuroscience research and education. Undergraduates will present posters of their research. FUN Student Travel Awards and the Educator of the Year Award will be presented. SOMAS awardees and their students will be introduced (see www.somasprogram.org). See the FUN website for travel award information and registration for poster presentations at the FUN Social (www.funfaculty.org).

Hippocampus Social Purely Social

Hilton Riverside: Elmwood

Chair: Michael E. Hasselmo

Guests: G. Buzsaki, L. Davachi, H. Eichenbaum, L.M. Giocomo, J.J. Knierim, M.L. Shapiro, J.S. Taube, C.E. Stern

Come to this purely social event to encode new episodic memories of conversations with your friends and colleagues and retrieve amusing memories from your past collaborations.

Ingestive Behavior Social Purely Social

Hilton Riverside: Jasperwood

Chair: Barry E. Levin

What better way to practice what you preach than to join your fellow researchers in an evening of ingestion including beer, wine, hard stuff, and snacks. Ingestion is combined with conversations about your favorite scientific topic, ingestive behavior, and its joys and consequences. Students, postdoctoral fellows, and established scientists are all are welcome to this annual social event where you can meet neuroscientists from a broad range of disciplines to network, meet old friends, make new ones, and establish future collaborations. Those in the market for jobs or looking for prospective job candidates will also find this a rewarding venue. The main goal is to enjoy the fruits of your labor and share war stories with like-minded scientists at all levels.

Music Social

Purely Social

Hilton Riverside: Kabacoff

Chair: William J. Pearce

Co-Chair: Richard Hartman

Guests: J.C. LaManna, C. Ladecola, L.D. Fricker

An evening of music will be provided by SfN member musicians. All musical types from rock to country to opera are welcome, with emphasis on variety and enthusiasm. Accompaniment is available given at least two weeks advance notice. The program fills quickly and there are no walk-ons, so contact us as soon as possible to get a place on the program. Each performance is typically allotted 10 minutes. Join us for a casual, informal, fun evening of neuroscientists enjoying music.

Neural Control of Autonomic and Respiratory Function Social Social with Brief Presentation

Hilton Riverside: Rosedown

Chair: Patrice G. Guyenet

Guests: J. Kipnis, K.J. Tracey, J.M. Ramirez

This social event is a gathering of scientists interested in the role of the autonomic nervous system in health and diseases such as hypertension, sleep apnea, metabolic syndrome, obesity, and others. The gathering is meant to facilitate informal interactions between scientists at all career levels and highlight some of the most transformational research in this field. Speakers will focus primarily

on the emerging field of brain-immune system interactions and its potential to understand and treat respiratory and cardiovascular diseases.

Pavlovian Society Social Purely Social

Hilton Riverside: Ascot

Chair: Stephen Maren

Guests: J. LeDoux, M. Fanselow, S. Josselyn, P. Frankland

A purely social gathering to connect scientists interested in learning and behavior from a neurobiological perspective. All are welcome!

Psychopharmacology Social: Your Brain on Drugs Purely Social

Hilton Riverside: Oak Alley

Chair: Stan B. Floresco

Guests: J.F. Cheer, A.A. Grace, P.H. Janak, D.J. Jentsch, L.M. Monteggia, P. O'Donnell, A.G. Phillips, P.E. Phillips, R.E. See

Join us for informal evening to socialize with psychopharmacologists — scientists who know a thing or two about mind-altering substances. This is an opportunity to catch up with friends and colleagues, meet others in the field, and loosen up with a tasty beverage after a hard day of science. All are welcome.

Vision Social: Hollywood Game Show, Visual Neuroscience Edition Social with Brief Presentation

Hilton Riverside: Versailles

Chair: Stephen D. Van Hooser

Co-Chair: Elizabeth Johnson

Guests: J. Culham, D. Fitzpatrick, J.A. Hirsch, S. Kastner, J.A. Movshon, W.T. Newsome, R.M. Shapley

Join us for an epic contest of knowledge and wit, as two contestants compete in tic-tac-toe in a Vision Squares board. At each square the contestants' skills will be tested by a legend in the field. Prizes, audience participation, food, and drink will round out the event.

MONDAY SATELLITE EVENTS & NON-SfN SOCIALS

Full descriptions and the latest details on satellite events and socials not sponsored by SfN are available online at www.sfn.org/satellites.

These events also are available in the online Neuroscience Meeting Planner, accessible on site or at www.sfn.org/nmp.

| Sponsor Category Key: 1: Commercial 2: University/Nonprofit 3: Individual/Group | | | | | |
|--|---|-------------------|--|-------------------|-------------|
| TITLE | FOR MORE INFORMATION | TIME | LOCATION | ROOM | SPONSOR KEY |
| Monday, Oct. 15 | | | | | |
| 3rd Spike & ECoG Recording & Analysis Workshop | vogt@gtec.at | 6:30 – 9:30 p.m. | Ernest N. Morial Convention Center | 352 | 1 |
| ALS, FTD and New Discoveries in C9orf72 | lucie@alsa-national.org | 6:30 – 9:30 p.m. | Hilton New Orleans Riverside | Grand Ballroom C | 2 |
| Alzheimer's Association Reviewers/ISTAART Reception | Meredith.McNeil@alz.org | 6:30 – 8:30 p.m. | Westin New Orleans Canal Place | Terrace | 2 |
| 2012 Christopher Reeve "Hot Topics" in Stem Cell Biology | lobrien@sbmri.org | 6:30 – 10:00 p.m. | Ernest N. Morial Convention Center | 345 | 1 |
| Dartmouth Reception | michelle.a.sama@dartmouth.edu | 6:30 – 8 p.m. | Mulate's Restaurant | N/A | 2 |
| Ernst Strüngmann Forum Social | www.esforum.de | 7 – 9 p.m. | Hilton New Orleans Riverside | Port/Starboard | 2 |
| Friends of Ohio State University Social | biomed.osu.edu/neuroscience/2155.cfm | 6:30 – 8:30 p.m. | Hilton New Orleans Riverside | Belle Chasse | 2 |
| Grass Foundation Social | execassist@grassfoundation.org | 6:30 – 8 p.m. | Hilton New Orleans Riverside | Windsor | 2 |
| Imaging the Connectome | jwenner@nikon.net | 6:30 – 8:30 p.m. | Ernest N. Morial Convention Center | 277 | 1 |
| Leibniz Lecture: JAN BORN on "Learning During Sleep — Not A Dream" | surjo@soekadar.com | 6:30 – 7:30 p.m. | Westin New Orleans Canal Place | Ballroom I | 2 |
| Methods in Behavioral Neuroscience | jthomps@cleversysinc.com | 6:30 – 9 p.m. | Hilton New Orleans Riverside | Grand Ballroom D | 3 |
| Monism: Complimentary Scientific and Biblical Views of Self | ted@unityemail.net | 7 – 8:30 p.m. | Ernest N. Morial Convention Center | 388 | 3 |
| Neuroscience in Germany XIX Social | emily.formica@dfg.de | 7 – 10 p.m. | Westin New Orleans Canal Place | Ballroom II | 2 |
| New Frontiers in Connectomics Imaging: From Mapping to Viewing Neurobiological Processes in Action | tricia.duff@olympus.com | 6:30- 9:30 p.m. | Visit booth 1331 | N/A | 1 |
| NIDA/INSERM Satellite Event: Forging Collaborations in the Neuroscience of Drug Abuse and Addiction | http://www.seiservices.com/nida/inserm2012/ | 6:30 – 9:30 p.m. | Sheraton New Orleans Hotel | Grand Ballroom | 2 |
| Optical and Electrical Recording Technique Advances in Single Neurons and Networks | andrea@alascience.com | 6:30 – 8:30 p.m. | Ernest N. Morial Convention Center | 290 | 1 |
| Patient HM | http://www.brownpapertickets.com/event/258703 | 7 – 8:30 p.m. | 12 Bar on Fulton Street at 608 Fulton Street | N/A | 3 |
| Reducing Internal Sensation of Retrieved Memories Through Semblance Hypothesis | semblancehypothesis.org | 7 – 8 a.m. | Ernest N. Morial Convention Center | 352 | 3 |
| Researchers Who Invent: An Opportunity to Meet with Small Businesses that Commercialize Neurotechnol | mgrabba@mail.nih.gov | 6:30 – 9:30 p.m. | Hilton New Orleans Riverside | Compass | 2 |
| Rat Models of Autism: New Insights from Novel Tools | Lindsay.Poepsel@sial.com | 6:30 – 9 p.m. | Ernest N. Morial Convention Center | 287 | 3 |
| Serotonin Club Reception | becks@email.chop.edu | 6:30 – 8 p.m. | Margaritaville | N/A | 3 |
| Sleep and Circadian Biology DataBlitz | laposkya@nhlbi.nih.gov | 8 – 10 p.m. | Hilton New Orleans Riverside | Grand Ballroom B | 2 |
| Sleep Research Society Club Hypnos | www.sleepresearchsociety.org | 6:30 – 8 p.m. | Hilton New Orleans Riverside | Grand Ballroom A | 2 |
| Stress and the Brain Event: GDRE Bruce McEwen Conference | Stefania.maccari@univ-lille1.fr | 6:30 – 8 p.m. | Hilton New Orleans Riverside | Napoleon Ballroom | 2 |
| EMD Millipore Neuroscience Annual Twilight talks: 2012 - Molecular Mechanisms of Excitatory and Inhibitory Postsynaptic Receptors. | ferogh.ahmadi@merckgroup.com | 6:30 – 9 p.m. | Hilton New Orleans Riverside | Steering | 1 |
| Taiwan Night | ctchien@gate.sinica.edu.tw | 6:30 – 9:30 p.m. | Ernest N. Morial Convention Center | 283 | 2 |
| The European Research Council, A Great Funding Opportunity | nicolas.volley@ec.europa.eu | 6:30 – 8:30 p.m. | Ernest N. Morial Convention Center | 291 | 2 |
| UAB Comprehensive Neuroscience Center Social | mcmahon@uab.edu | 6:30 – 8:30 p.m. | Hilton New Orleans Riverside | Grand Salon D | 2 |
| Washington University in St. Louis Neuroscience Reception | deobrien@wustl.edu | 6:30 – 9:30 p.m. | The District | N/A | 2 |

NOTES

Complete Session Listing

Monday AM

Mon. AM

SPECIAL LECTURE Ernest N. Morial Convention Center

302. Super-Resolution Fluorescence Microscopy and Applications to Neuroscience — CME

Mon. 8:30 AM - 9:40 AM — Hall D

Speaker: X. ZHUANG, *Harvard University, Howard Hughes Med. Inst.*

The recently developed super-resolution fluorescence microscopy method, stochastic optical reconstruction microscopy (STORM), uses single-molecule imaging and photo-switchable fluorescent probes to achieve sub-diffraction-limit image resolution. This method allows multicolor and three-dimensional imaging of live cells and tissues with nanometer-scale resolution. This lecture covers the general concept, recent technological advances and biological applications of STORM, including applications in neuroscience.

behavioral factors, which together influence cortical state. This dependence on state is observed in the navigation system of the hippocampus and in sensory systems such as the primary visual, auditory, and somatosensory cortices. Exciting inroads were recently made in understanding how cortical state influences information processing in these structures.

8:30 **304.01** Introduction.

8:35 **304.02** Modulation of cortical state and information processing in the hippocampus. L. M. FRANK. *Univ. California, San Francisco.*

9:10 **304.03** State-dependent cortical dynamics and sensory processing in barrel cortex. C. C. PETERSEN. *Brain Mind Institute, Ecole Polytechnique Federale de Lausanne (EPFL).*

9:45 **304.04** Cortical state and information processing in auditory cortex. K. D. HARRIS. *Imperial Col. London.*

10:20 **304.05** Cortical state and information processing by neuronal populations in visual cortex. Y. DAN. *Univ. of California-Berkeley.*

10:55 **304.06** Closing Remarks.

SYMPOSIUM Ernest N. Morial Convention Center

303. ● Treatment of Developmental Disorders in Adulthood — CME

Mon. 8:30 AM - 11:00 AM — New Orleans Theater B

Chair: E. CASTREN

Co-Chair: R. HAGERMAN

Neurodevelopmental defects have been considered irreparable in adulthood but two lines of recent research discussed in this symposium are challenging this concept. First, mouse models suggest that certain symptoms of neurodevelopmental disorders can be reversed in adults. Second, critical period-like plasticity can be reactivated in adult brain by environmental or pharmacological manipulations. These results suggest a rational basis for treatment of developmental disorders in adulthood.

8:30 **303.01** Introduction.

8:35 **303.02** ● Pharmacological reactivation of early life-like plasticity in adulthood. E. CASTREN. *Univ. of Helsinki.*

9:10 **303.03** ● Targeted treatments in Fragile X Syndrome: from animal models to humans. R. HAGERMAN. *Univ. of California Davis Med. Ctr.*

9:45 **303.04** NF1, TSC and Angelman syndrome: from basic research to clinical trials. Y. ELGERSMA. *Erasmus Univ. Rotterdam.*

10:20 **303.05** Reactivation of critical period plasticity in adult visual cortex by enriched environment. L. MAFFEI. *CNR.*

10:55 **303.06** Closing Remarks.

SYMPOSIUM Ernest N. Morial Convention Center

305. New Insights into Proteasomal and Autophagy-Lysosomal Pathways in Neurodegenerative Disease — CME

Mon. 8:30 AM - 11:00 AM — La Nouvelle C

Chair: T. SIDDIQUE

Two major protein recycling pathways exist in eukaryotic cells: autophagy and the ubiquitin proteasome system (UPS). The UPS is responsible for the rapid degradation of proteins when fast adaptation is needed, whereas, autophagy is mainly involved in the degradation of long-lived proteins and entire organelles. Recent studies have highlighted the central role played by these pathways in neurodegenerative diseases. This symposium will address key questions from genetics to biochemistry and from animal models to human diseases.

8:30 **305.01** Introduction.

8:35 **305.02** Structural basis for specificity and diversity of polyubiquitin signaling. D. FUSHMAN. *Univ. of Maryland.*

9:10 **305.03** Autophagy and HD. S. M. FINKBEINER. *Gladstone Inst. of Neurolog. Dis.*

9:45 **305.04** Lysosomal system compromise and its role in neurodegenerative disease. S. WALKLEY. *Albert Einstein Col. of Med.*

10:20 **305.05** UBQLN2/p62 pathways in neurodegeneration. T. SIDDIQUE. *Northwestern Univ. Feinberg Sch. of Med.*

10:55 **305.06** Closing Remarks.

SYMPOSIUM Ernest N. Morial Convention Center

304. Brain States and Cortical Function — CME

Mon. 8:30 AM - 11:00 AM — La Nouvelle A

Chair: M. CARANDINI

The cortex is not a simple input-output machine. Its activity depends both on incoming signals and on cognitive and

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

SYMPOSIUM Ernest N. Morial Convention Center

306. ● Cracking Neural Codes with Photons: Optogenetics as an Integral Tool for Systems Neuroscience — CME

Mon. 8:30 AM - 11:00 AM — Ernest N. Morial Convention Center, 345

Chair: M. J. SCHNITZER
Co-Chair: K. DEISSEROTH

This symposium presents an overview of rapidly emerging technologies that are improving the ability to use photons in the study of normal and diseased nervous systems. These technologies include optogenetics, microscopy in awake behaving animals, and transgenic 'tool' mice for optical studies. Speakers will discuss new types of experiments enabled by the cutting edge techniques, showcasing recent progress in understanding neural coding and circuit dynamics and areas of potential clinical impact.

- 8:30 **306.01** Introduction.
- 8:35 **306.02** Neural representations of space in entorhinal cortex and hippocampus. E. I. MOSER. *Kavli Inst. Systems Neurosci.*
- 9:10 **306.03** Cell-type specific optogenetic mice for probing neural circuits in health and disease. G. FENG. *MIT.*
- 9:45 **306.04** ● Visualizing the neuronal orchestra: large-scale imaging of neural dynamics in awake behaving animals. M. J. SCHNITZER. *HHMI / Stanford Univ.*
- 10:20 **306.05** ● Cracking neural codes with photons: optogenetics as an integral tool for systems neuroscience. K. DEISSEROTH. *HHMI / Stanford Med. Sch.*
- 10:55 **306.06** Closing Remarks.

MINISYMPOSIUM Ernest N. Morial Convention Center

307. Insulin and GLP-1 Analogues as Novel Strategies to Treat Neurodegenerative Disorders — CME

Mon. 8:30 AM - 11:00 AM — New Orleans Theater A

Chair: C. HOLSCHER

The minisymposium will inform about the wealth of novel findings of neuroprotective properties of insulin or new analogues of GLP-1 in Alzheimer's and Parkinson's disease. Two GLP-1 analogues, exendin-4 and liraglutide are already on the market to treat diabetes, a risk factor for Alzheimer's. Several clinical trials are ongoing, testing insulin, exendin-4 or liraglutide in AD patients, and exendin-4 in Parkinson's patients. First results will be available from some of these trials at the conference.

- 8:30 **307.01** Introduction.
- 8:35 **307.02** GGLP-1 signal transduction pathways in neuroplasticity and neuroprotection. M. P. MATTSON. *Nat Inst. on Aging.*
- 8:55 **307.03** ● Neuroprotective effects of novel GLP-1 analogues in models of Alzheimer's disease. C. HOLSCHER. *Univ. of Ulster.*
- 9:15 **307.04** IRS-1 inhibition and ER stress links impaired insulin signaling in Alzheimer's disease and type-2 diabetes: Protection by exendin-4 and liraglutide. F. G. DE FELICE. *Fed Univ. Rio de.*
- 9:35 **307.05** A clinical trial of exendin-4 in patients with Parkinson's disease. T. FOLTYNIE. *UCL.*

- 9:55 **307.06** Brain insulin resistance in Alzheimer's disease and its alleviation by GLP-1 analogues. K. TALBOT. *Univ. of Pennsylvania.*
- 10:15 **307.07** Insulin in cognition and Alzheimer's disease therapeutics. S. CRAFT. *Univ. Washington.*
- 10:35 **307.08** Closing Remarks.

MINISYMPOSIUM Ernest N. Morial Convention Center

308. The Re-Emergence of Schemas in Memory Research: From Encoding to Reconsolidation — CME

Mon. 8:30 AM - 11:00 AM — New Orleans Theater C

Chair: M. T. R. VAN KESTEREN
Co-Chair: R. N. A. HENSON

This minisymposium will focus on the recent renewed interest in schemas within memory research, in both animals and humans. It will shed light on the concept of schemas, their role in memory, and their neural correlates during encoding, (re)consolidation and retrieval. By combining expertise from both lesions and neuroimaging, in both animal and humans, together with computational modeling, the six speakers will try to pave the way for future research concerning schemas and memory.

- 8:30 **308.01** Introduction.
- 8:35 **308.02** Schemas in animals and humans: how to bridge the gap. R. G. MORRIS. *Univ. Edinburgh.*
- 8:55 **308.03** Studies of Fast-Mapping and Confabulation: Implications for schema theories of memory. A. GILBOA. *Rotman Res. Inst.*
- 9:15 **308.04** Statistical learning and schema abstraction during sleep. P. LEWIS. *Univ. of Manchester.*
- 9:35 **308.05** Schemas and prediction-error-driven learning. R. N. A. HENSON. *Med. Res. Council Cambridge.*
- 9:55 **308.06** Brain areas involved in extracting episodic regularities over time and sleep. C. C. G. SWEEGERS. *Univ. of Amsterdam.*
- 10:15 **308.07** Influences of schemas on declarative memory in humans. M. T. R. VAN KESTEREN. *Donders Inst. for Brain, Cognition and Behaviour.*
- 10:35 **308.08** Closing Remarks.

DAVID KOPF LECTURE ON NEUROETHICS Ernest N. Morial Convention Center

309. The Impact of Neuroscience on Society: The Neuroethics of 'Smart Drugs'

Mon. 10:00 AM - 11:10 AM — Hall D

Speaker: B. J. SAHAKIAN. *Univ. of Cambridge, United Kingdom.*

Support contributed by David Kopf Instruments

Cognitive-enhancing drugs can improve forms of cognition, such as working memory, not only in people with neuropsychiatric disorders but also in healthy people. The increasing lifestyle use of "smart drugs" by healthy people raises important neuroethical issues. It is important to consider the potential harms of these drugs (i.e., substance abuse, unknown effects on the developing brain, coercion at school or work). The public should be engaged to consider potential benefits and how these drugs may change society.

310. ● Going to Hell in a Handbasket: Molecular Weakening of Prefrontal Cortical Regulation During Stress

Mon. 11:30 AM - 12:40 PM — Hall D

Speaker: A. F. T. ARNSTEN, *Yale Univ. Sch. of Med.*

This lecture describes the regulation of behavior, thought and emotion by the highly evolved prefrontal cortex, and how these “top-down” circuits are weakened by molecular events during stress exposure. In contrast, more primitive brain circuits are strengthened by stress signaling mechanisms. Many of the genetic links in neuropsychiatric illness involve insults to the molecular brakes on stress-signaling pathways, leading to increased susceptibility to prefrontal cortical dysfunction.

NANOSYMPOSIUM

311. Axon Guidance Mechanisms

Theme A: Development

Mon. 8:00 AM – Ernest N. Morial Convention Center, 391

- 8:00 **311.01** Differential axon guidance responses to Sonic hedgehog along two orthogonal axes regulated by a cell-intrinsic switch. F. CHARRON*. *IRCM, McGill Univ., Univ. of Montreal.*
- 8:15 **311.02** A developmental program sets left-right asymmetry of phrenic motoneurons and connectivity. V. CASTELLANI*; Y. CHAIX; C. CHAROY; D. MARTIN; B. DURAND; J. FALK. *Univ. of Lyon Ucb11 Cgphimc UMR CNRS 5534, Univ. of Michigan Med. Ctr.*
- 8:30 **311.03** Regulation of corticospinal axon guidance/elimination by semaphorin6D-plexinA1 signaling. Y. YOSHIDA*; Y. IMAMURA KAWASAWA; A. KUMANOGOH; N. SESTAN; Z. GU. *Cincinnati Children's Hosp. Med. Ctr., Yale Univ. Sch. of Med., Osaka Univ., Yale Univ. Sch. of Med.*
- 8:45 **311.04** Improper glomerular development in the accessory olfactory bulb is associated with a loss of male-male aggression. J. CLOUTIER*; T. CUTFORTH; J. E. A. PRINCE. *Montreal Neurol Inst., Univ. of California Irvine, Montreal Neurolog. Inst.*
- 9:00 **311.05** Interplay between distinct axon guidance signalling pathways and receptors orchestrate the development of the thalamocortical connectivity. E. LEYVA-DIAZ; D. DEL TORO; M. MENAL; S. CAMBRAY; M. CASTILLO-PATERNA; M. TESSIER-LAVIGNE; J. EGEA; R. KLEIN; G. LOPEZ-BENDITO*. *Inst. de Neurociencias, Max Planck Inst. of Neurobio., Univ. de Lleida/IRBLLEIDA, The Rockefeller Univ.*
- 9:15 **311.06** MicroRNA-9 promotes the switch from early-born to late-born motor neuron populations by regulating Onecut transcription factor expression. M. HELMBRECHT; G. LUXENHOFER; S. GIUSTI; D. REFOJO; A. B. HUBER*. *Helmholtz Zentrum Muenchen, MPI of Psychiatry.*
- 9:30 **311.07** A forward genetic screen to study axon guidance signaling in motor neurons. D. BONANOMI*; S. PFAFF. *The Salk Inst.*
- 9:45 **311.08** EphA/ephrinA reverse signaling is involved in attractive guidance of motor axons to the dorsal limb. I. DUDANOVA*; T. KAO; J. E. HERRMANN; B. ZHENG; A. KANIA; R. KLEIN. *Max Planck Inst. of Neurobio., Inst. de recherches cliniques de Montréal, Dept. of Neurosciences, Univ. of California San Diego.*

- 10:00 **311.09** EphB2 trans-endocytosis during contact repulsion is mediated by Src/Dock180/Elmo signaling. M. SAKKOU*; K. SAKO; P. ALCALA; C. HEISENBERG; R. KLEIN. *Max Planck Inst. of Neurobio., IST Austria.*
- 10:15 **311.10** Establishing axonal laterality in the CNS: Zic2 and its target effector molecules define midline avoidance of ascending spinal cord tracts. E. HERRERA*; A. ESCALANTE; A. KLAR. *Inst. De Neurociencias, Hebrew Univ. of Jerusalem-Hadassah Med. Sch.*
- 10:30 **311.11** Netrin and ephrin synergy in motor axon guidance. A. KANIA*; S. POLIAK; T. KAO; D. KRAWCHUK; L. CROTEAU; E. PALMESINO; S. MORTON; J. CLOUTIER; F. CHARRON; S. ACKERMAN. *(IRCM) Inst. de recherches cliniques de Montreal, Columbia Univ. / HHMI, McGill Univ., The Jackson Lab. / HHMI.*
- 10:45 **311.12** DSCAM promotes retinal ganglion cell axon fasciculation and growth in the developing mouse optic pathway. L. ERSKINE*; F. BRUCE; R. W. BURGESS; P. G. FUERST. *Univ. of Aberdeen, The Jackson Lab., Univ. of Idaho.*
- 11:00 **311.13** SoxCs regulate factors important for retinal axon guidance at the optic chiasm midline. T. KUWAJIMA*; V. LEFEBVRE; C. MASON. *Columbia Univ., Cleveland Clin. Lerner Res. Inst., Columbia Univ.*
- 11:15 **311.14** Apical-basal and planar cell polarity signaling pathways mediate growth cone turning. Y. ZOU*; K. ONISHI. *Univ. of California, San Diego, UCSD.*

NANOSYMPOSIUM

312. Transplantation and Regeneration

Theme A: Development

Mon. 8:00 AM – Ernest N. Morial Convention Center, 395

- 8:00 **312.01** Motor neuron ablation and regeneration in the spinal cord of larval zebrafish. J. OHNMACHT*; T. BECKER; C. G. BECKER. *University of Edinburgh.*
- 8:15 **312.02** Comparison of hard and soft colloidal carriers for neural cell transplantation. D. JGAMADZE; M. PLATEN; L. LIU; L. CHU; S. PAUTOT*. *Crt-Dresden, Sichuan Univ.*
- 8:30 **312.03** Regeneration of *Drosophila* sensory neuron axons and dendrites in the PNS and CNS. Y. SONG*; K. M. ORIMCKENNEY; Y. ZHENG; C. HAN; L. Y. JAN; Y. JAN. *Univ. of California, San Francisco.*
- 8:45 **312.04** End-to-side tubulisation - new alternative for the study of peripheral nerve regeneration. A. A. BARREIRA*; A. H. D. NASCIMENTO-ELIAS; M. L. SCHIAVONI; T. S. MOTA; W. MARQUES, Jr. *Sch. of Med. of Ribeirão Preto, Univ. of São Paulo (USP).*
- 9:00 **312.05 ●** Control of compensatory sprouting of corticospinal tract axons by socs3 dependent pathway. D. JIN*; F. SUN; Z. HE. *Harvard Med. School, Children's Hosp. Boston.*
- 9:15 **312.06** Altering oligodendrocyte migration in a model of toxin-induced demyelination in adult zebrafish. E. J. MUENZEL*; T. BECKER; C. G. BECKER; A. WILLIAMS. *Univ. of Edinburgh, Univ. of Edinburgh.*
- 9:30 **312.07 ●** Hall effect current induced by asymmetric magnetic fields can promote the preferred orientation of sympathetic neurons *in vitro*. L. PAN*. *Ctr. For Paralysis Res. Purdue Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:45 **312.08** Activity-dependent expression of nuclear encoded mitochondrial proteins in retinal ganglion cell axons *in vivo*. M. STEKETEE*; J. E. WEINSTEIN; A. KREYMERMAN; J. L. GOLDBERG. *Bascom Palmer Eye Institute, Univ. of Miami*.
- 10:00 **312.09** Stem cell transplantation strategies for sub-cortical remyelination. C. A. RUFF*; H. YE; N. STRBBELL; M. LEGASTO; J. WANG; L. ZHANG; M. FEHLINGS. *Univ. Hlth. Network*.
- 10:15 **312.10** • Administration of multipotent adult progenitor cells impacts regeneration and bladder function after spinal cord injury. S. A. BUSCH*; M. DEPAUL; M. PALMER; J. A. HAMILTON; R. CUTRONE; A. E. TING; R. J. DEANS; R. W. MAYS; J. SILVER. *Athersys, Inc., Case Western Reserve Univ.*
- 10:30 **312.11** Neuronal reprogramming of mesodermal cells by a long non-coding RNA. S. VALADKHAN*; F. JAHANIANI; B. ZHANG; F. NIAZI; L. S. GUNAWARDANE. *Case Western Reserve Univ.*

NANOSYMPOSIUM

313. Abeta Assembly and Deposition I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, 262

- 8:00 **313.01** Herpes simplex virus encephalitis and Abeta plaques in human patients: Case reports. E. L. BEARER*; R. WOLTJER; J. E. DONAHUE; K. KILPATRICK. *UNM Sch. of Med., Oregon Hlth. Sci. Univ., Brown Univ., Univ. of New Mexico*.
- 8:15 **313.02** Lead exposure and formation of amyloid plaques: *in vivo* and *in vitro* evidence of the involvement of heavy metal ions in amyloid aggregation. W. ZHENG*; Y. DU; Y. PUSHKAR; G. ROBISON; A. D. MONNOT. *Purdue-Health Sci., Indiana Univ. Sch. of Med., Purdue Univ., ChemRisk*.
- 8:30 **313.03** Aβ blocks mitochondrial movement - implications for the mechanism of the loss of neurites in AD. K. LEUNER*; C. KURZ; G. P. ECKERT; W. E. MUELLER. *FAU Erlangen Nuremberg, Goethe Univ.*
- 8:45 **313.04** Remodeling of the morphology of β-amyloid plaques by CLAC in the brains of transgenic mice. T. HASHIMOTO*; D. FUJII; M. KASHIWAGI; Y. MATSUO; Y. MATSUURA; T. SAKAKURA; H. KOWA; D. WESTAWAY; T. WAKABAYASHI; T. IWATSUBO. *The Univ. of Tokyo, The Univ. of Tokyo, Univ. of Toronto*.
- 9:00 **313.05** Diversity in conformation and aggregation kinetics of synthetic Abeta peptides containing FAD mutations. A. HATAMI*; C. GLABE. *Univ. of California, Irvine*.
- 9:15 **313.06** Distinct, toxic oligomer formation during co-existence of Alzheimer's amyloid-β 40 and 42. Y. CHEN*. *Genomics Res. Center/ Academia Sinica*.
- 9:30 **313.07** Evaluating the Aβ strain hypothesis in non-transgenic mouse brain. Y. LEVITES*; C. CEBALLOS-DIAZ; A. ROSARIO; H. PARK; P. CRUZ; T. GOLDE. *Univ. of Florida*.
- 9:45 **313.08** Effects of phosphorylation on the structure and aggregation of the amyloid beta-peptide. J. WALTER*; S. KUMAR; N. REZAEI-GHALEH; M. ZWECKSTETTER. *Univ. Bonn, Max-Planck-Institute for Biophysical Chem.*

- 10:00 **313.09** • Biochemical and histological characterization of a small molecule fluorophore that preferentially binds soluble beta-amyloid oligomers. C. A. TAN HEHIR; V. E. COTERO*. *Gen. Electric-Global Res. Ctr., Gen. Electric- Global Res. Ctr.*
- 10:15 **313.10** Peripheral blood reduction of amyloid-beta and cerebral amyloid plaques decrease in Alzheimer's transgenic mice. L. D. ESTRADA*; D. CHAMORRO; A. R. ALVAREZ. *P. Univ. Catolica De Chile*.

NANOSYMPOSIUM

314. Parkinson's Disease: Synuclein, Parkin, PINK and Stem Cells

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, 277

- 8:00 **314.01** Mice overexpressing wild-type human alpha-synuclein display alterations in colonic myenteric ganglia and defecation. L. WANG*; I. MAGEN; P. YUAN; F. RICHTER; S. R. SUBRAMANIAM; M. CHESSELET; Y. F. TACHÉ. *UCLA*.
- 8:15 **314.02** Intestinal permeability and alpha-synuclein pathology in mouse models of pre-motor Parkinson's disease. L. P. KELLY; P. M. CARVEY; R. A. E. BAKAY; J. H. KORDOWER*. *Rush Univ., Rush Univ., Rush Univ., Rush Univ. Med. Ctr.*
- 8:30 **314.03** Severe dopaminergic phenotype accompanied by insoluble and proteinase-k resistant conformers in a novel bac alpha-synuclein transgenic rat. S. NUBER*; F. HARMUTH; Z. KOHL; A. ADAME; M. TREJO; K. SCHÖNIG; P. BAUER; N. CASADEI; C. GIEL; C. CALAMINUS; B. PICHLER; D. AMATO; J. KORNHUBER; C. P. MÜLLER; R. TAKAHASHI; J. WINKLER; E. MASLIAH; O. RIESS. *Dept. of Neurosciences, Univ. of California, San Diego, Dept. of Med. Genet., Div. of Mol. Neurol., Dept. of Mol. Biol., Dept. of Radiology, Dept. of Psychiatry and Psychotherapy, Dept. of Neurol.*
- 8:45 **314.04** Conditional expression of Parkinson's disease-related mutant alpha-synuclein in the midbrain dopaminergic neurons causes progressive neurodegeneration and degradation of transcription factor Nuclear Receptor Related 1. H. CAI*; X. LIN; L. PARISIADOU; C. SGOBIO; J. YU. *Natl. Inst. Aging, NIA, NINDS*.
- 9:00 **314.05** Presenilin1 and alpha-synuclein interact to modify alpha-synuclein accumulation and toxicity. A. R. WINSLOW*; L. ZHU; K. L. POST; M. ARIMON; O. BEREZOVSKA; P. J. MCLEAN. *Mgh/Harvard, MIND Inst., Mayo Clin.*
- 9:15 **314.06** Non-dopamine monoamine transmission in a novel BAC alpha-synuclein transgenic model of Parkinson's disease. D. POTGIETER*; T. TAYLOR; S. THRELFELL; R. WADE-MARTINS; S. J. CRAGG. *Univ. of Oxford, Univ. of Minnesota*.
- 9:30 **314.07** Effects of alpha synuclein overexpression on the *in vivo* firing properties of identified dopaminergic neurons of the substantia nigra in a BAC-transgenic mouse model of Parkinson's disease. P. D. DODSON*; S. JANEZIC; R. WADE-MARTINS; J. P. BOLAM; P. J. MAGILL. *Univ. of Oxford, MRC Anatom. Neuropharm. Unit, Oxford Parkinson's Dis. Ctr., Univ. of Oxford, Univ. of Oxford*.

- 9:45 **314.08** Characterization of cognitive deficits in rats overexpressing human alpha-synuclein in dopaminergic and cholinergic neurons. H. HALL*; N. LANDECK; N. NILSSON; M. JEWETT; G. LEANZA; D. KIRIK. *Brain Repair And Imaging In Neural Systems Unit, Lund Univ., Basic Res. And Integrative Neuroscience, Univ. of Trieste.*
- 10:00 **314.09** The TOM machinery is a new actor in PINK1/Parkin-dependent mitochondrial clearance. G. BERTOLIN; R. FERRANDO-MIGUEL; A. DAUPHIN; F. WAHARTE; S. TRAYER; K. GRENIER; A. BULTEAU; E. FON; A. BRICE; O. CORTI*. *UPMC Umr_s975, Inserm U 975, CNRS UMR 7225 - NEB, Inst. Curie/Cnrs, UMR 144, McGill Univ., Inst. Cochin, CNRS-Paris Descartes.*
- 10:15 **314.10** Ret signaling rescues mitochondrial defects caused by Parkin or PINK1. P. KLEIN; E. MOTORI; K. WINKLHOFFER; R. KLEIN*. *Max-Planck Inst. Neurobiol, Ludwig Maximilians Univ.*
- 10:30 **314.11** Dopamine neurons derived from human ES cells retain midbrain phenotype in aged MPTP monkeys. D. R. WAKEMAN*; S. KRIKS; H. B. DODIYA; L. STUDER; J. H. KORDOWER. *Rush Univ., Mem. Sloan-Kettering Cancer Ctr.*
- 10:45 **314.12** Very long term outcome of fetal cell transplantation for Parkinson's disease. Z. KEFALOPOULOU*; M. POLITIS; P. PICCINI; H. WIDNER; S. REHNCRONA; O. LINDVALL; K. BHATIA; P. LIMOUSIN; N. QUINN; T. FOLTYNIE. *UCL, Inst. of Neurol., Imperial Col., Lund Univ., UCL, Inst. of Neurol.*
- 11:00 **314.13** Transplantation of human embryonic dopamine neurons into Parkinson's patients predicts outcome of stem-cell derived neurons. C. R. FREED*; W. ZHOU; Y. LEE; M. LEEHEY; R. E. BREEZE. *Univ. Colorado Sch. of Med., Univ. Colorado Sch. of Med., Univ. Colorado Sch. of Med.*

NANOSYMPOSIUM

315. Brain Trauma: Animal Models and Human Studies I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, 288

- 8:00 **315.01** Treatment with Candesartan, the angiotensin II type I receptor antagonist, after traumatic brain injury is neuroprotective in mice. S. VILLAPOL; T. T. LOGAN; A. YASZEMSKI; K. AFFRAM; B. T. SUSARLA*; J. M. SAAVEDRA; A. J. SYMES. *Ctr. For Neurosci. and Regenerative Medicine, Uniformed Services Univ., Ctr. For Neurosci. and Regenerative Medicine, Uniformed Services Univ., Natl. Inst. of Mental Hlth.*
- 8:15 **315.02** TBI-induced spatial memory loss is averted by treatment with the dietary supplement anatabine. S. FERGUSON*; B. MOUZON; J. OJO; A. BISHOP; G. CRYNEN; J. REED; D. PARIS; V. MATHURA; M. MULLAN; F. CRAWFORD. *Roskamp Inst., James A Haley Veterans' Hosp., The Open Univ.*
- 8:30 **315.03** Altered ca1 hippocampal long-term potentiation after repetitive traumatic brain injury in mice. O. C. LOGUE*; N. P. CRAMER; X. XU; Z. GALDZICKI. *Uniformed Services Univ., Uniformed Services Univ. of the Hlth. Sci.*

- 8:45 **315.04** Traumatic axonal injury after exposure to blast: A comparison of white matter damage in blast and non-blast traumatic brain injury (Blast Injury Outcome Study in Armed forces Personnel - BIOSAP). D. J. SHARP*; R. LEECH; T. E. HAM; P. J. HELLYER; A. MISTLIN; A. BENNETT; N. KITCHEN; M. MIDWINTER; D. BAXTER. *Imperial Col. London, Computational, Cognitive and Clin. Neuroimaging Lab., Defence Med. Rehabil. Ctr., Academic centre for Musculoskeletal and Rehabil. Med., Inst. of Neurol. and Neurosurgery, Univ. Col. London, Royal Ctr. for Defence Med.*
- 9:00 **315.05** Alterations in hippocampal circuitry post diffuse brain injury in a swine TBI model. J. A. WOLF*; B. H. JOHNSON; K. D. BROWNE; V. E. JOHNSON; C. J. MIETUS; D. H. SMITH; M. S. GRADY; A. S. COHEN; D. K. CULLEN. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*
- 9:15 **315.06** Prefrontal-cerebellar functional connectivity as a latent support mechanism in traumatic brain injury. J. D. MEDAGLIA*; O. SCHANZ; F. G. HILLARY. *The Pennsylvania State Univ.*
- 9:30 **315.07** Evaluation of a new clinically-relevant model of frontal traumatic injury in the pediatric mouse brain. B. D. SEMPLE*; C. Y. CHEN; D. M. FERRIERO; L. J. NOBLE-HAEUSSLEIN. *Univ. of California, San Francisco, Natl. Taiwan Univ. Hosp. and Natl. Taiwan Univ. Col. of Med., Univ. of California, San Francisco, Univ. of California, San Francisco, Univ. of California, San Francisco.*
- 9:45 **315.08** The polymorphism of CYP2E1 affects working memory following penetrating brain injury. E. ROSTAMI*; F. KRUEGER; S. ZOUBAK; O. DAL MONTE; C. HODGKINSON; D. GOLDMAN; M. RISLING; J. GRAFMAN. *Karolinska Inst., NINDS, Lab. of Neurogenetics, Natl. Inst. of Alcohol Abuse and Alcoholism., Cognitive Neurosci. Section, Natl. Inst. of Neurolog. Disorders and Stroke., Traumatic Brain Injury Res. Laboratory, Kessler Fndn. Res. Ctr.*
- 10:00 **315.09** Behavioral and neuropathological characterization of concussive injury in hTau mice. B. C. MOUZON*; C. BACHMEIER; M. MULLAN; W. STEWART; F. CRAWFORD. *The Roskamp Inst., James A. Haley VA Med. Ctr., The Open Univ., Southern Gen. Hosp., Univ. of Glasgow.*
- 10:15 **315.10** ● Autophagy and chronic traumatic encephalopathy (CTE) in a blast neurotrauma mouse model. L. E. GOLDSTEIN*; A. M. FISHER; C. A. TAGGE; L. VELISEK; M. ERICSSON; M. W. WOJNAROWICZ; N. CASEY; J. A. MONCASTER; R. D. MOIR; J. K. BLUSZTAJN; B. L. WOLOZIN; T. IKEZU; T. D. STEIN; A. BUDSON; N. W. KOWALL; S. SAMAN; G. F. HALL; W. C. MOSS; R. O. CLEVELAND; R. E. TANZI; P. K. STANTON; A. C. MCKEE. *Boston Univ. Sch. of Med., Boston Univ. Alzheimer's Dis. Ctr., Boston Univ., Boston Univ., New York Med. Col., Harvard Med. Sch., Massachusetts Gen. Hosp., Veterans Affairs Boston Healthcare Syst., Univ. of Massachusetts Lowell, Lawrence Livermore Natl. Lab., Univ. of Oxford, Massachusetts Gen. Hosp., Boston Univ. Sch. of Med.*

NANOSYMPOSIUM

316. Multisensory Processing: Clinical Populations

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, 383

- 8:00 **316.01** Individual differences in older adults' behavioral and brain responses to McGurk stimuli. S. BAUM*; M. S. BEAUCHAMP. *Univ. of Texas Med. School, Houston.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:15 **316.02** Visual temporal processing is associated with cochlear implant auditory proficiency. R. A. STEVENSON*; B. D. MANGUS; J. KRUGER FISTER; S. W. SHEFFIELD; A. J. HEDLEY-WILLIAMS; R. T. DWYER; R. H. GIFFORD; R. P. LABADIE; M. T. WALLACE. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ.*
- 8:30 **316.03** Altered audiovisual processing following the loss of one eye early in life. J. K. STEEVES*; S. S. MORO; K. R. KELLY; L. R. HARRIS. *York Univ.*
- 8:45 **316.04** Perceptions of audiovisual illusions reveal atypical multisensory processing in autism spectrum disorders. J. SIEMANN*; R. STEVENSON; B. SCHNEIDER; H. EBERLY; T. WOYNAROSKI; S. CAMARATA; M. WALLACE. *Neurosci. Grad. Program Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*
- 9:00 **316.05** Visual-tactile integration and influence on proprioception in autism spectrum disorders investigated with the rubber hand illusion. C. J. CASCIO*; J. FOSS-FEIG; J. HEACOCK; C. NEWSOM. *Vanderbilt Univ., Vanderbilt Univ., Ohio State Univ., Vanderbilt Univ.*
- 9:15 **316.06** • Audiovisual speech integration does not rely on the motor system. W. MATCHIN*; M. FERRILL; C. ROGALSKY; T. LOVE; G. HICKOK. *UC Irvine, San Diego State Univ.*
- 9:30 **316.07** Relating the development of temporal processing and multisensory integration in children with autism spectrum disorders. J. H. FOSS-FEIG*; R. A. STEVENSON; J. K. SIEMANN; B. C. SCHNEIDER; H. E. EBERLY; T. G. WOYNAROSKI; S. M. CAMARATA; M. T. WALLACE. *Vanderbilt Univ., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr.*
- 9:45 **316.08** Me-fMRI evaluation of cross-model plasticity in experimental rat models with binocular blindness. Z. TANG*; X. FENG; X. SUN; W. TANG; J. WANG; Z. HAN. *Eye & ENT Hosp. of Fudan Univ., Huashan Hosp. of Fudan Univ., Eye & ENT Hosp. of Fudan Univ.*
- 10:00 **316.09** Examining the effects of auditory deprivation and the use of a visual language on neuroanatomy. C. R. LYNES*; M. I. SERENO; D. WATERS; M. MACSWEENEY. *Inst. of Cognitive Neurosci., UCL, Birkbeck Col. London.*
- 10:15 **316.10** Reorganization of auditory motion direction encoding in early blind humans. F. JIANG*; G. STECKER; I. FINE. *Univ. of Washington, Univ. of Washington.*
- 8:45 **317.04** Exemplar selectivity reflects “canonical” perceptual similarities in the human fusiform cortex. I. DAVIDESCO; E. ZION GOLUMBIC; S. BICKEL; M. HAREL; D. M. GROPPÉ; C. J. KELLER; C. A. SCHEVON; G. M. MCKHANN; R. R. GOODMAN; G. GOELMAN; C. E. SCHROEDER; A. D. MEHTA; R. MALACH*. *Hebrew Univ. of Jerusalem, Columbia Univ. Col. of Physicians and Surgeons, Nathan Kline Inst., Dept. of Neurosurgery, Hofstra North Shore LIJ Sch. of Med. and Feinstein Inst. for Med. Res., Weizmann Institute, Neurobio. Dept., Albert Einstein Col. of Med., Columbia Univ. Col. of Physicians and Surgeons, Hadassah Hebrew Univ. Med. Ctr.*
- 9:00 **317.05** Face space - An investigation of its neural basis. A. NESTOR*; D. C. PLAUT; M. BEHRMANN. *Carnegie Mellon Univ.*
- 9:15 **317.06** Role and time-course of the right occipital face area: Evidence from intracerebral stimulations and recordings. J. JONAS; B. ROSSION*; L. KOESSLER; M. DESCOINS; J. VIGNAL; S. COLNAT-COULBOIS; L. MAILLARD. *Service de Neurologie, CHU de Nancy, Ctr. de Recherche en Automatique de Nancy (CRAN - UMR 7039), Univ. de Lorraine, CNRS, Univ. catholique Louvain, INSERM U75, Epilepsie & Cognition, Service de Neurochirurgie, CHU de Nancy.*
- 9:30 **317.07** Re-thinking the functional organization of human visual cortex. K. S. WEINER*; K. GRILL-SPECTOR. *Stanford Univ.*
- 9:45 **317.08** How perceptual is perceptual expertise? Neural and behavioral evidence for the involvement of top-down factors in visual expertise. A. HAREL*; S. GILAIÉ-DOTAN; S. BENTIN. *NIMH/NIH, Univ. Col. London, Hebrew Univ. of Jerusalem.*
- 10:00 **317.09** High-resolution imaging of car expertise effects during divided attention. R. W. MCGUGIN*; A. T. NEWTON; J. C. GORE; I. GAUTHIER. *Vanderbilt Univ., Vanderbilt Univ.*
- 10:15 **317.10** Distributed maps within face- and place-selective regions represent perceptual and conceptual properties of faces. E. GOESAERT*; H. P. OP DE BEECK. *KU Leuven.*
- 10:30 **317.11** Temporal constraints on the statistical learning of image sequences in inferotemporal cortex. T. MEYER*; S. RAMACHANDRAN; C. R. OLSON. *Carnegie Mellon Univ.*
- 10:45 **317.12** Statistical learning of visual sequences in monkey inferotemporal cortex depends on the bidirectional conditional probability of the images. S. RAMACHANDRAN*; T. MEYER; C. R. OLSON. *Carnegie Mellon Univ., Ctr. for the Neural Basis of Cognition.*
- 11:00 **317.13** An expanded neural framework for the processing of object properties. D. J. KRAVITZ*; K. S. SALEEM; C. I. BAKER; L. UNGERLEIDER; M. MISHKIN. *NIH, Natl. Inst. of Mental Hlth.*
- 11:15 **317.14** Electrical stimulation of human fusiform face-selective regions distorts face perception. J. PARVIZI*; C. JACQUES; B. L. FOSTER; N. WITTHOFT; V. RANGARAJAN; K. WEINER; K. GRILL-SPECTOR. *Stanford Univ., Stanford Human Intracranial Cognitive Electrophysiology Program (SHICEP).*
- 11:30 **317.15** Complexity and contradiction in neural encoding of face similarity. D. A. KAHN*; M. G. MATTAR; G. K. AGUIRRE. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*

NANOSYMPOSIUM

317. Extrastriate Cortex: Functional Organization Faces and Objects

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, 383

- 8:00 **317.01** Imbalanced gain changes of driving and divisive normalization inputs explain repetition suppression for single and multiple stimuli in macaque inferior temporal cortex. D. KALIUKHOVICH*; R. VOGELS. *KU Leuven.*
- 8:15 **317.02** Expertise effects for non-face objects in FFA are robust to inattention but not competition. A. E. VAN GULICK*; R. W. MCGUGIN; I. GAUTHIER. *Vanderbilt Univ.*
- 8:30 **317.03** Speed of human visual-associative face learning predicted by structural properties of the uncinate fasciculus. C. P. THOMAS*; L. WALKER; C. PIERPAOLI; C. I. BAKER. *NIMH, Natl. Inst. of Child Hlth. and Human Develop.*

NANOSYMPOSIUM

318. Thalamic and Cortical Processing II

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, 388

- 8:00 **318.01** Reticular thalamic nucleus (RTN) neurons: Ongoing spike activity and effect of RTN stimulation on formalin-induced thalamocortical plasticity. P. J. SOJA*; R. SANOJA. *Univ. British Columbia, Univ. of British Columbia, Univ. British Columbia.*
- 8:15 **318.02** Theta and gamma oscillations typical of thalamocortical dysrhythmia in patients with trigeminal neuralgia pain. K. D. WALTON*; J. GARCIA; G. RABELLO; J. DELFINO; R. R. LLINÁS. *NYU Sch. Med., NYU Sch. Med.*
- 8:30 **318.03** Thalamocortical dysrhythmia (TCD) in the mouse model of central tinnitus. S. CHOI*; T. TZOUNOPOULOS; M. SUGIMORI; R. R. LLINÁS. *New York Univ., Univ. of Pittsburgh.*
- 8:45 **318.04** Thalamocortical dysrhythmia induced by intraplantar formalin injection in the awake rat. R. SANOJA*; E. HUBER; P. SOJA. *Univ. of British Columbia, UBC-Neuropharmacology, UBC-Neurophysiology.*
- 9:00 **318.05** Evidence that postsynaptic factors underlie enhanced excitability of thalamic neurons during EEG slowing following (a)synchronous nociceptive inflow. R. TADAVARTY*; N. TAEPARAPRUK; R. SANOJA; E. HUBER; P. SOJA. *The Univ. of British Columbia, The Univ. of British Columbia.*
- 9:15 **318.06** Delta and theta oscillations typical of thalamocortical dysrhythmia in patients with fibromyalgia pain. G. RABELLO; K. D. WALTON; J. DELFINO; S. ZOU; R. R. LLINÁS*. *idade Federal de São Paulo/EPM, New York Univ. Sch. Med., New York Univ. Sch. Med.*
- 9:30 **318.07** Acute sciatic nerve constriction injury induces paradoxical changes in cortical parietal EEG and evoked thalamic VPL neuron activity. E. HUBER*; P. J. SOJA; R. SANOJA. *Univ. of British Columbia, UBC-Neurophysiology, UBC-Neuropharmacology.*
- 9:45 **318.08** Carrageenan-induced hyperalgesia is associated with enhanced delta and theta cortical EEG activity. T. MARIAM*; M. SHAMSHUDDIN; R. SANOJA; P. J. SOJA. *The Univ. of British Columbia, UBC-Neuropharmacology, UBC-Neurophysiology.*
- 10:00 **318.09** T-type calcium channel involved in trigeminal neuropathic pain mechanisms. E. YU*; S. CHOI; M. SUGIMORI; R. LLINÁS. *New York Univ.*
- 10:15 **318.10** Human tinnitus, a Thalamocortical Dysrhythmia (TCD), as a tool to analyze the neurological basis for subjectivity. V. GUPTA; M. SUGIMORI*; R. LLINÁS. *New York Univ. Sch. Med., New York Univ. Sch. Med., New York Univ. Sch. Med.*

NANOSYMPOSIUM

319. Perception and Imagery: Neural Bases

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, 291

- 8:00 **319.01** • Dissociating subjective awareness and objective performance under threshold perception. Q. LI*; B. J. HE. *NIH.*

- 8:15 **319.02** Brain mechanisms underlying simple perception, bistable perception, and perceptual memory: Similarities and differences. M. WANG*; D. ARTEAGA; B. J. HE. *NIH.*
- 8:30 **319.03** What distinguishes rapid from slow responses during interrupted visual search? - Evidence from Magnetoencephalography. Y. M. FONKEN; E. SPAAK; O. JENSEN; F. P. DE LANGE*. *Radboud Univ. Nijmegen.*
- 8:45 **319.04** Neuroimaging and genetics of synesthesia. S. N. TOMSON*; S. LEAL; R. A. GIBBS; D. M. EAGLEMAN. *Baylor Col. Med., Baylor Col. Med.*
- 9:00 **319.05** The lateral occipital complex is not necessary for haptic shape representation. J. C. SNOW*; M. A. GOODALE; J. C. CULHAM. *Western Univ.*
- 9:15 **319.06** Visual awareness at sensory discrimination threshold depends on the pre-stimulus EEG-microstate. J. BRITZ*; L. DIAZ HERNANDEZ; T. RO; C. M. MICHEL. *Univ. of Geneva, City Col.*
- 9:30 **319.07** • Intracranial analysis of transient and sustained responses to persistent visual stimuli along the human visual pathway. K. G. BUCHANAN*; R. A. KUPERMAN; K. I. AUGUSTE; J. PARVIZI; R. T. KNIGHT; L. Y. DEOUELL. *UC Berkeley, Children's Hosp. & Res. Ctr., Children's Hosp. & Res. Ctr., UC San Francisco, Stanford Univ., UC Berkeley, Hebrew Univ. of Jerusalem, Hebrew Univ. of Jerusalem.*
- 9:45 **319.08** Visual working memory and mental imagery share sensory representations in early visual cortex. A. ALBERS*; P. KOK; I. TONI; C. DIJKERMAN; F. P. DE LANGE. *Radboud Univ. Nijmegen, Donders Inst. For Brain Cognition and Behaviour, Helmholtz Institute, Exptl. Psychology, Utrecht Univ.*
- 10:00 **319.09** Brain GABA concentrations determines individual differences in bistable perception. A. M. VAN LOON*; T. KNAPEN; H. S. SCHOLTE; E. ST. JOHN-SAALTINK; T. H. DONNER; V. A. F. LAMME. *Univ. of Amsterdam,, Cognitive Sci. Ctr. Amsterdam, Brain and Cognition, Univ. of Amsterdam, Donders Inst. for Brain, Cognition and Behavior.*
- 10:15 **319.10** Separating state and strength processes in the detection of visual change: Neural correlates of perceiving and knowing. M. ALY*; A. P. YONELINAS; C. RANGANATH. *Univ. of California, Davis.*
- 10:30 **319.11** fMRI activation by face and biological motion perception: Comparison of response maps and creation of probabilistic atlases. A. D. ENGELL*; G. MCCARTHY. *Yale Univ.*
- 10:45 **319.12** Effect of selective attention in visual associated cortex revealed by multivoxel pattern classification. N. NELISSEN*; M. STOKES; M. RUSHWORTH. *Univ. of Oxford, KU Leuven.*

NANOSYMPOSIUM

320. Human Long-Term Memory: Encoding and Retrieval I

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, 393

- 8:00 **320.01** Dissociable hippocampal mechanisms for encoding of novelty and expectancy violation. J. WILSON*; V. P. MURTY; R. A. ADCOCK. *Duke Univ., Duke Univ.*
- 8:15 **320.02** Neural evidence for the biasing effects of associative memory on human decision making. G. WIMMER*; D. SHOHAMY. *Columbia Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:30 **320.03** Modulation of medial temporal lobe activity by reward value during virtual navigation: A high-resolution fMRI study. V. A. CARR*; S. E. FAVILA; D. ARENA; J. N. BAILENSON; A. D. WAGNER. *Stanford Univ., Stanford Univ.*
- 8:45 **320.04** Distributed hippocampal codes representing reward context are associated with enhanced episodic binding. S. M. WOLOSIN*; D. ZEITHAMOVA; A. R. PRESTON. *The Univ. of Texas At Austin.*
- 9:00 **320.05** A trade-off between feedback-based learning and episodic memory for feedback events: Evidence from Parkinson's disease. K. E. FOERDE*; E. K. BRAUN; D. SHOHAMY. *Columbia Univ.*
- 9:15 **320.06** How motivational context shapes mnemonic content: Reward and punishment motivation drive different medial temporal substrates for encoding expectancy violations. V. P. MURTY*; K. S. LABAR; R. ADCOCK. *Duke Univ.*
- 9:30 **320.07** Visual cortex supports temporally specific working memory representations. T. J. VICKERY*; B. KUHL; M. CHUN. *Yale Univ., Yale Univ.*
- 9:45 **320.08** Model selection using multivariate measures of brain response: Exemplar vs. prototype theories of categorization. M. L. MACK*; A. R. PRESTON; B. LOVE. *The Univ. of Texas At Austin, Univ. Col. London.*
- 10:00 **320.09** Residual activation of items in working memory leads to forgetting. J. A. LEWIS-PEACOCK*; K. A. NORMAN. *Princeton Univ., Princeton Univ.*
- 10:15 **320.10** Pattern similarity in medial temporal lobes predicts memory strength in categorization and recognition memory tasks. T. DAVIS*; G. XUE; B. LOVE; A. PRESTON; R. POLDRACK. *Univ. of Texas At Austin, Beijing Normal, Univ. Col. London.*
- 10:30 **320.11** Effects of visual memory reactivation on subsequent recognition. B. A. KUHL*; M. M. CHUN. *Yale Univ., New York Univ.*
- 10:45 **320.12** Inducing beta oscillations in the left inferior prefrontal cortex via repetitive TMS selectively impairs long-term memory encoding. S. HANSLMAYR*; J. MATUSCHEK. *Univ. of Konstanz.*
- 11:00 **320.13** Effects of an intense learning period on sleep EEG parameters. M. DRESLER*; B. N. KONRAD; L. HALIMSETIAWAN; L. GENZEL; V. I. SPOORMAKER; M. CZISCH; A. STEIGER. *Max Planck Inst. of Psychiatry.*

NANOSYMPOSIUM

321. Timing and Temporal Processing I

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, 387

- 8:00 **321.01** Encoding of timing in sequential movements. K. KORNYSHEVA*; A. SIERK; J. DIEDRICHSEN. *Univ. Col. London.*
- 8:15 **321.02** Indexes of temporal encoding revealed by simultaneous transcranial magnetic stimulation and electroencephalography. M. WIENER*; P. E. TURKELTAUB; R. H. HAMILTON; D. WOLK; H. B. COSLETT. *Univ. Pennsylvania, Georgetown Univ.*
- 8:30 **321.03** Encoding and structuring events for time perception. V. VAN WASSENHOVE*. *CEA.DSV.I2BM, Neurospin MEG, INSERM U992, Univ. Paris-Sud.*

- 8:45 **321.04** Learning about time: Plastic changes and inter-individual brain differences underlying enhanced discrimination of short temporal intervals. D. BUETI*; S. LASAPONARA; M. CERCIGNANI; E. MACALUSO. *Dept. of Clin. Neurosciences, Univ. Hosp., Santa Lucia Fndn., Univ. of Rome 'La Sapienza', Univ. of Sussex, Falmer.*
- 9:00 **321.05** How the neurobiology of interval timing shapes temporal accuracy. H. VAN RIJN*. *Univ. of Groningen.*
- 9:15 **321.06** Saccades and blinks lengthen subjective time in a seconds range interval timing task. T. B. PENNEY*; Y. L. YEOW; A. W. Y. BAY; S. C. YEN. *Psychology Department, Natl. Univ. of Singapore, Natl. Univ. of Singapore.*
- 9:30 **321.07** Vierordt's Law: How prototypes cause migration of temporal memories. V. JACKSON-HANEN*; H. VAN VOLKINBURG; P. BALSAM. *Columbia Univ., Barnard Col.*
- 9:45 **321.08** The effects of beat induction, continuation, and ambiguity on stratal activity during rhythm processing. D. CAMERON*; J. A. GRAHN. *Univ. of Western Ontario.*
- 10:00 **321.09** Temporal prediction and the basal ganglia: Stage-dependent effects of auditory deviance processing. S. A. KOTZ*; M. SCHWARTZE. *Max-Planck Inst. Cog & Brain Sci., MPI for Human Cognitive and Brain Sci.*
- 10:15 **321.10** On the nature of rhythm, time and memory. S. TEKI*; T. D. GRIFFITHS. *Univ. Col. London, Newcastle Univ.*
- 10:30 **321.11** Selective attention to auditory temporal features separates domain-general from timing-specific functions. M. J. HENRY*; J. OBLESER. *Max Planck Inst. For Human Cognitive and Brain Sci.*
- 10:45 **321.12** The basal ganglia and perceptual and motor timing: Evidence from clinical and imaging studies in Parkinson's disease.*M. JAHANSAHI; *Sobell Dept., London, United Kingdom.*
- 11:00 **321.13** Behavioral and neural markers of beat-based timing. J. MCAULEY*. *Dept. of Psychology.*
- 11:15 **321.14** fMRI reveals differences between neural systems recruited for time perception in children with and without autism. M. J. ALLMAN*; S. E. JOEL; W. H. MECK; M. B. DENCKLA. *Johns Hopkins Med., Kennedy Krieger Inst., Duke Univ.*

NANOSYMPOSIUM

322. Novel Electrophysiological Methods II

Theme G: Novel Methods and Technology Development

Mon. 8:00 AM – Ernest N. Morial Convention Center, 268

- 8:00 **322.01** ● A Wireless and fully implantable recording system for ECoG signals. D. ROTERMUND; D. BOLL; V. GORDILLO-GONZALEZ; D. GOULD; T. HERTZBERG; J. HÖFFMANN; S. MANDON; D. PETERS-DROLSHAGEN; J. PISTOR; M. RICHTER; T. SCHELLENBERG; E. TOLSTOSHEEVA; G. WIDMAN; C. E. ELGER; W. LANG; S. PAUL; M. SCHNEIDER; K. PAWELZIK*; A. K. KREITER. *Univ. of Bremen, Univ. of Bremen, Univ. of Bremen, Univ. of Bremen, Brain Products GmbH, Univ. of Bremen, Univ. of Bonn, Univ. Bremen.*
- 8:15 **322.02** ● Application of wireless monitoring of neurological activity and movement in an immersive 3D virtual reality environment. E. R. MACAGNO*; L. ZHANG; E. EDELSTEIN; J. SCHULZE; M. CHI; C. STEVENSON; G. CAUWENBERGHS; T. JUNG; J. GOSSMAN; P. OTTO; J. TOWNSEND. *Univ. California San Diego.*

- 8:30 **322.03** High-density electrically isolated capacitive pillar arrays for high fidelity neural sensors. Y. HWANG; J. L. SCHEI*; J. S. GEORGE; T. PICRAUX; S. A. DAYEH. *Los Alamos Natl. Lab.*
- 8:45 **322.04** ● High density micro-electrocorticography (µecog) using flexible silicon electronics. J. VIVENTI*; J. A. ROGERS; B. LITT. *Polytechnic Inst. of New York Univ., New York Univ., Univ. of Illinois at Urbana-Champaign, Univ. of Pennsylvania.*
- 9:00 **322.05** Intravenous recording of epileptiform events and high frequencies. M. R. BOWER*; M. STEAD; R. S. BOWER; J. J. VAN GOMPEL; S. J. ASIRVATHAM; W. MARSH; G. A. WORRELL. *Mayo Clin., Mayo Clin., Mayo Clin., Mayo Clin.*
- 9:15 **322.06** Implantable micro-reaction chamber electrodes for pulsed neural stimulation and microstimulation. B. SHANMUGASUNDARAM; B. J. GLUCKMAN*. *Penn State Univ.*
- 9:30 **322.07** Capability of an 11,011-electrode CMOS array to study action potential propagation plasticity. D. J. BAKKUM*; U. FREY; J. MUELLER; M. FISCELLA; B. ROSCIC; H. TAKAHASHI; A. HIERLEMANN. *ETH Zurich, Univ. of Tokyo, RIKEN, ETH Zurich.*
- 9:45 **322.08** Organic electronics allows the photo-electric excitation of neuronal activity in primary neuronal cultures and acute retinal explants. D. GHEZZI; E. LANZARINI; N. MARTINO; M. ANTOGNAZZA; R. MACCARONE; S. BISTI; M. METE; G. PERTILE; G. LANZANI; F. BENFENATI*. *Inst. Italiano di Tecnologia, Inst. Italiano di Tecnologia, Univ. dell'Aquila, Ospedale Sacro Cuore - Don Calabria, FONDAZIONE ISTITUTO ITALIANO DI TECNOLOGIA.*
- 10:00 **322.09** Compound action potential propagation in embryonic dorsal root ganglion neurites cultured in microengineered hydrogels. R. M. HUVAL; K. J. KHATAMI; B. J. HALL; M. J. MOORE*. *Tulane Univ., Tulane Univ., Tulane Univ.*
- 10:15 **322.10** ● Voltage gated ion channel measurements in tethered membranes. B. A. CORNELL*; H. ALKHAMICI; S. CARNE; C. CRANFIELD; B. MARTINAC; A. POWEL; P. ROHDE; S. VALENZUELA; B. A. WALLACE. *Surgical Diagnostics Pty Ltd, Univ. of Technol. Sydney, Victor Chang Cardiac Res. Inst., Univ. of London, Univ. of Technol. Sydney, Univ. of London.*
- 10:30 **322.11** Functional characterization of ion channels obtained by membrane insertion into *Xenopus* oocytes. B. BITON*; P. CERVELLO; C. LANNEAU; V. LETANG; N. BAKOUH; J. LASCHET; M. BURGEVIN; D. CHASSIN; N. BODIER; C. ORSINI; J. DELEUZE; P. AVENET; D. BERTRAND. *Sanofi, UMR 663 Inserm, sanofi, HiQScreen.*
- 10:45 **322.12** Long term implantation and lifetime testing of micro-ecog array for bmi. P. LEDOCHOWITSCH*; A. KORALEK; R. F. TIEFENAUER; J. M. CARMENA; M. M. MAHARBIZ. *Univ. of California, Berkeley.*
- 11:00 **322.13** Development of a miniature wireless stimulation and electrophysiological recording device for rodent behavioural testing. R. PINNELL; J. J. DEMPSTER; J. A. PRATT*. *Univ. Strathclyde, Univ. Strathclyde, Univ. Strathclyde.*

POSTER

323. Cortical Development II**Theme A: Development**

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 A1 **323.01** Loss of Met signaling alters cerebral cortical structure and cellular composition. J. M. SMITH*; G. J. MARTINS; E. M. POWELL. *Univ. of Maryland, Baltimore.*
- 9:00 A2 **323.02** Neuroimaging and cortical histology in murine x-monosomy. A. RAZNAHAN; F. PROBST; F. M. LALONDE*; J. GERMANN; J. GIEDD; J. LERCH. *NIMH, Baylor Col. of Med., NIMH, SickKids Hosp.*
- 10:00 A3 **323.03** Intrinsic specification of somatosensory area field size by Pax6 limits representation of sensory periphery and drives top-down plasticity of body map in thalamus. A. B. ZEMBRZYCKI*; S. CHOU; R. ASHERY-PADAN; A. STOYKOVA; D. D. M. O'LEARY. *Salk Inst. For Biol. Studies, Max Planck Inst. For Biophysical Chem.*
- 11:00 A4 **323.04** Neocortical organization in the aging mouse after early bilateral enucleation. C. W. ABBOTT*, III; O. KOZANIAN; K. J. HUFFMAN. *UCR.*
- 8:00 A5 **323.05** Physiological basis for raphe serotonin neuron vulnerability early in development. S. G. BECK*; D. A. PIEL; B. D. ROOD. *Children's Hosp. of Philadelphia Res. Inst.*
- 9:00 A6 **323.06** Gene profiling reveals a novel core of neural induction (ni-core) genes expressed during human neural development. C. FASANO*; N. BOLES; S. HIRSCH; B. CORNEO; F. AHMAD. *Neural Stem Cell Inst.*
- 10:00 A7 **323.07** ▲ The role of voltage gated calcium channels in neuronal phenotype specification. W. A. HERBST*; B. A. RABE; Z. S. WELCH; M. S. SAHA. *The Col. of William and Mary.*
- 11:00 A8 **323.08** Conditional deletion of Emx2 from cortical progenitors reveals role in specifying neocortical area patterning and unique thalamic plasticity. A. M. STOCKER*; S. SAHARA; A. B. ZEMBRZYCKI; D. D. M. O'LEARY. *Salk Inst. For Biol. Studies.*
- 8:00 A9 **323.09** Pseudokinases contribute to development of the cerebral cortex. B. O. VELEVA*; B. EDMONDS; L. R. WELCH; A. P. HARROLD; G. HADDOCK; H. CLEVERS; A. P. BARNES. *Oregon Hlth. and Sci. Univ., Univ. Med. Ctr.*
- 9:00 A10 **323.10** Genetic control of corticospinal system development and evolution. S. SHIM*; N. SESTAN. *Yale school of Med.*
- 10:00 A11 **323.11** Direct conversion of human patient fibroblasts into spinal motor neurons for large-scale phenotypic studies of ALS. J. ICHIDA*; E. SON; A. BLUMENSTEIN; B. WAINGER; K. SANDOR; N. ATWATER; C. WOOLF; L. RUBIN; K. EGGAN. *Harvard Univ., Harvard Med. School, Children's Hosp. Boston, Massachusetts Gen. Hosp., Harvard Med. School, Children's Hosp. Boston.*
- 11:00 A12 **323.12** Glypican expression in amygdala-like regions of the zebrafish forebrain. L. L. BRUCE*; K. L. KRAMER. *Creighton Univ.*
- 8:00 A13 **323.13** The role of the zinc-finger transcription factor Sp8 in the establishment/maintenance of the dorsal Lateral Ganglionic Eminence (dLGE). M. C. MADHAVAN*; I. VILINSKY; L. EHRMAN; K. CAMPBELL. *CCHMC, Univ. of Cincinnati.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 A14 **323.14** ▲ The effect of mercury on neural gene expression during early zebra finch development. J. MURRAY*; C. RAMOS; Z. WELCH; D. CRISTOL; M. S. SAHA. *Col. of William and Mary*.
- 10:00 A15 **323.15** Selective induction of distinct NKX2.1+ neural precursor populations and human embryonic stem cell-derived cortical interneurons depends on timing of SHH exposure. A. M. MAROOF*; S. A. ANDERSON; L. STUDER. *Harvard Univ., Weill Cornell Med. Col., Sloan Kettering Inst. for Cancer Res.*
- 11:00 A16 **323.16** An *in vitro* model of the human regionalized brain reveals ventral-to-dorsal fate switching upon transgenic expression of the transcription factor LMX1A. A. KIRKEBY; D. WOLF; S. GREALISH; J. JAKOBSSON*; M. PARMAR. *Wallenberg Neurosci. Ctr.*
- 8:00 A17 **323.17** Generation of cortical interneuron subgroups from a dual-reporter mouse embryonic stem cell line. J. A. TYSON; A. M. MAROOF; S. A. ANDERSON*. *Weill Med. Col. of Cornell, Harvard*.
- 9:00 A18 **323.18** Fibroblast Growth Factor 8 organizes the neocortical area map and regulates sensory map topography. E. A. GROVE*; S. ASSIMACOPOULOS; T. KAO; N. P. ISSA. *Univ. Chicago, Univ. Chicago*.
- 10:00 A19 **323.19** Roles of thalamic afferents in early neocortical development. Y. NAKAGAWA*; T. VUE; M. LEE; Y. TAN; L. WANG. *Univ. Minnesota, Univ. of Minnesota, Univ. of Minnesota*.
- 11:00 A20 **323.20** Distribution and embryonic origin of catecholaminergic neurons of the striatum and amygdala of mouse. A. ABELLAN*; M. BUPESH; A. VICARIO; L. MEDINA. *Univ. of Lleida - IRBLLEIDA, Univ. de Lleida, Univ. de Lleida, Univ. de Lleida*.
- 8:00 A21 **323.21** Irx3 and Pax6 establish thalamic competence for Shh signalling. C. KIECKER*; K. MATSUMOTO; A. LUMSDEN; E. ROBERTSHAW. *MRC Ctr. For Developmental Neurobio.*
- 9:00 A22 **323.22** Large scale monitoring of mitoses, somal replacement, and endfeet movements at/near the apical surface of the developing mouse neocortex. T. SHINODA*; M. OKAMOTO; K. SAGOU; H. TAKAGI; M. UEDA; S. TSUKITA; T. FUJIMORI; T. MIYATA. *Dept. of Cell Biology, Grad. Sch. of Medicine, Nagoya Univ., Dept. Physics, Nara Med. Univ., Grad Sch. of Frontier Biosci, Osaka Univ., Dept. Pathology, Grad Sch. of Frontier Biosci, Osaka Univ., Div. Embryology, NIBB*.
- 10:00 A23 **323.23** Neurogenesis of human corticospinal motor neurons. S. KLEIN*; A. SMITH; J. M. WEIMANN; B. ZHENG. *Univ. of California San Diego, Stanford Univ.*
- 11:00 A24 **323.24** Differences in structural brain networks between young adulthood and old age. L. ZHAN*; D. ARIENZO; B. MUELLER; C. LENGLET; G. SAPIRO; K. LIM; P. THOMPSON. *UCLA Sch. of Med., UCLA Semel Inst. for Neurosci. and Human Behavior, Dept. of Psychiatry, Univ. of Minnesota, Ctr. for Magnetic Resonance Research, Univ. of Minnesota, Dept. of Electrical and Computer Engineering, Univ. of Minnesota*.
- 8:00 A25 **323.25** Surface area in the left ventromedial prefrontal cortex predicts self-reported anxiety in typically developing children and adolescents. E. NEWMAN; C. J. MCCABE; C. RODDEY; J. KUPERMAN; Y. CHUNG; A. M. DALE; T. L. JERNIGAN*. *UCSD, UCSD*.
- 9:00 A26 **323.26** Development of neuronal microcircuits in neocortex layer1. X. YAO*; Y. FU; Y. YU; J. MA. *Fudan Univ., Fudan Univ.*

POSTER

324. Postnatal Neurogenesis: Environmental and Pharmacological Regulation

Theme A: Development

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 A27 **324.01** Sensory input-dependent spatiotemporal regulation of neuronal turnover in the adult olfactory bulb glomeruli. M. SAWADA*; N. KANEKO; H. INADA; H. WAKE; Y. KATO; Y. YANAGAWA; K. KOBAYASHI; T. NEMOTO; J. NABEKURA; K. SAWAMOTO. *Nagoya City Univ. Grad. Sch. of Med. Sci., Natl. Inst. for Physiological Sci., Gunma University, Grad. Sch. of Med., Fukushima Med. Univ. Sch. of Med., Res. Inst. for Electronic Science, Hokkaido Univ.*
- 9:00 A28 **324.02** Differential neuronal activation of the hippocampal subfields following wheel running in a rodent model of FASD. K. E. BOSCHEN*; A. MORALES; M. P. CASTIGLIONE; W. T. GREENOUGH; A. Y. KLINTSOVA. *Univ. of Delaware, Univ. of Illinois*.
- 10:00 A29 **324.03** Neurogenesis and synaptic plasticity in rats submitted to maternal separation and enriched environment. S. MERLO*; J. I. LEMOS; L. B. ROCHA; M. A. ROSSI; J. E. MOREIRA. *Ribeirão Preto Sch. of Medicine, Univ. of São Paulo, Federal Univ. of Pará, Federal Univ. of Triângulo Mineiro, Ribeirão Preto Sch. of Medicine, Univ. of São Paulo, Ribeirão Preto Sch. of Medicine, Univ. of São Paulo*.
- 11:00 A30 **324.04** IL-17 is a negative regulator of progenitor proliferation in adult hippocampal neurogenesis. Q. LIU*; D. W. XIN; P. HE; D. TURNER; S. HEMDAN; Y. GAN; J. BELL; J. YIN; F. SHI; J. WU. *Barrow Neurolog. Inst., Roskamp Inst.*
- 8:00 A31 **324.05** Developing hippocampal stem cells are highly sensitive to the neurotoxicant methylmercury. M. POKU*; K. SOKOLOWSKI; N. WEISLEDER; E. DICICCO-BLOOM. *UMDNJ-Robert Wood Johnson Med. Sch. (RWJMS), Rutgers/UMDNJ-Robert Wood Johnson Med. Sch., UMDNJ-Robert Wood Johnson Med. Sch. (RWJMS)*.
- 9:00 A32 **324.06** Chronic hypoxia and tetrahydroperforin stimulates hippocampal neurogenesis in a mice model of Alzheimer's disease. L. VARELA-NALLAR*; A. C. ABBOTT; M. ROJAS-ABALOS; E. A. MOYA; R. ITURRIAGA; N. C. INESTROSA. *Facultad de Ciencias Biológicas, P. Univ. Católica de Chile, Dept. de Fisiología, Facultad de Ciencias Biológicas, P. Univ. Católica de Chile*.
- 10:00 A33 **324.07** Region specific and state dependent neurogenic plasticity in the adult zebrafish brain following developmental social isolation. B. W. LINDSEY*; V. TROPEPE. *Univ. of Toronto*.
- 11:00 A34 **324.08** Environmental enrichment-mediated stimulation of adult neurogenesis: Distinct contributions of physical exercise and environmental complexity. C. GRÉGOIRE*; A. LE NGUYEN; A. AUMONT; K. J. L. FERNANDES. *Univ. De Montréal*.
- 8:00 A35 **324.09** Androgenic mediation of exercise-induced adult hippocampal neurogenesis in female rats. M. OKAMOTO*; K. INOUE; T. MATSUI; M. LEE; H. SOYA. *Univ. of Tsukuba, JSPS Res. Fellow, Niigata Univ. of Hlth. and Welfare*.
- 9:00 A36 **324.10** Behavior of transplanted adult hippocampal progenitor cells in a mouse model of decreased endogenous hippocampal neurogenesis. B. WALDAU*; T. L. WALKER; G. KEMPERMANN. *CRTD*.

- 10:00 A37 **324.11** Indirect interaction with enriched environment has no beneficial effects on neurogenesis and visuospatial memory. D. M. IGGENA*; C. KLEIN; M. RIVALAN; Y. WINTER; G. KEMPERMANN; B. STEINER. *Charité - Universitätsmedizin Berlin, Charité - Universitätsmedizin Berlin, German Ctr. for Neurodegenerative Dis.*
- 11:00 A38 **324.12** Astrocyte fatty acid binding protein-7 is a marker for neurogenic niches in the adult rat brain. J. K. YOUNG*; T. HEINBOCKEL; M. GONDRE-LEWIS. *Howard Univ. Coll of Med., Howard Univ. Col. of Med.*
- 8:00 A39 **324.13** Tridimensional and ultrastructural aspects of ventricular/subventricular zone in long-evans rats. C. D. HAEMMERLE*; S. H. TAKADA; M. I. NOGUEIRA; I. WATANABE. *Univ. of São Paulo; Inst. of Biomed. Sci.*
- 9:00 A40 **324.14** Steroid hormone receptor activation is necessary for the addition of adult-born neurons in a song control region of the white-crowned sparrow. R. E. COHEN*; E. A. BRENOWITZ. *Univ. of Washington.*
- 10:00 A41 **324.15** Cranial radiation to the young mouse brain ablates neurogenesis in the hippocampus but allows a time-dependent recovery of microvessels and subsequent adjustment to the surrounding neural tissue. M. BOSTRÖM*; A. S. NAYLOR; M. KALM; N. KARLSSON; N. HELLSTRÖM ERKENSTAM; K. BLOMGREN. *Inst. of Neurosci. and Physiology, Univ. of Gothenburg, Karolinska Institutet, Karolinska Univ. Hosp.*
- 11:00 A42 **324.16** Long lasting effects of perinatal fluoxetine on hippocampal neurogenesis. M. J. CHRUSCH*; V. KIRYANOVA; R. H. DYCK; S. C. SPANSWICK. *Univ. of Calgary, Univ. of Calgary.*
- 8:00 A43 **324.17** • Sympathetic and parasympathetic activation mediates transient bradycardia in responses to restraint stress in newborn rats. S. SATO*; J. TOKUNAGA; T. KANBAYASHI; Y. SAGAWA; M. SATO; N. SAKAI; N. HIRAI; T. SHIMIZU; S. NISHINO. *Stanford Univ. Sch. of Med., Akita Univ. Grad. Sch. of Med.*
- 9:00 A44 **324.18** Vulnerability to anesthetic induced neurotoxicity is better predicted by cell age than age of the organism. R. D. HOFACER*; C. W; E. HUGHES; B. JOSEPH; S. DANZER; A. LOEPKE. *The Univ. of Cincinnati Col. of Med., Cincinnati Children's Hosp., The Univ. of Cincinnati Col. of Med.*
- 10:00 A45 **324.19** Effect of dopamine on adult hippocampal neurogenesis. S. NAKAGAWA*; N. TAKAMURA; S. BOKU; N. SONG; A. KATO; T. INOUE. *Hokkaido Univ. Grad Sch. Med.*
- 11:00 A46 **324.20** Alpha1A adrenergic receptor influences on neural progenitor cell fate in the adult mouse hippocampus. K. COLLETTE*; A. R. D. NIELSON; D. M. PEREZ; V. A. DOZE. *Univ. of North Dakota Sch. of Med. and Hlth. Sci., Cleveland Clin. Fndn.*
- 8:00 A47 **324.21** Modulation of activity in adult born olfactory neurons impacts scent detection in mice. N. MUTHUSAMY*; P. YADAV; B. ROTH; T. GHASHGHAEL. *North Carolina State Univ., Univ. of North Carolina.*
- 9:00 A48 **324.22** Photoperiod influences hippocampal neurogenesis in male white-footed mice (*Peromyscus leucopus*). J. C. WALTON*; T. G. AUBRECHT; Z. M. WEIL; R. J. NELSON. *Ohio State Univ. Wexner Med. Ctr.*
- 10:00 A49 **324.23** Perinatal arsenic exposure results in depressive-like behaviors and reduces adult neurogenesis; treatment with imipramine and brief experience in an enriched environment rescues these deficits. C. R. TYLER*; A. ALLAN. *Univ. of New Mexico, Univ. of New Mexico.*
- 11:00 A50 **324.24** Neurodevelopmental effects of fentanyl, midazolam and caffeine in the developing mouse brain. C. E. CREELEY*; C. M. YUEDE; J. W. OLNEY. *Washington Univ.*
- 8:00 A51 **324.25** • Roles of TrkB signaling in parvalbumin-expressing interneurons in GABA-mediated adult neurogenesis. C. SHIH*; E. G. WATERHOUSE; B. XU. *Georgetown Univ., Georgetown Univ. Med. Ctr.*
- 9:00 A52 **324.26** ▲ Detraining, spatial memory and neural proliferation, in rats. L. C. TEIXEIRA*; S. H. TAKADA; M. I. NOGUEIRA; G. F. XAVIER. *Univ. of Sao Paulo, Univ. of Sao Paulo.*
- 10:00 A53 **324.27** Seasonal changes in cell proliferation and survival in the brain and pituitary of an adult male frog. L. MUMAW*; T. FEHR; J. S. TALBOOM; J. MOLINARO; M. ORCHINIK. *Arizona State Univ., Arizona Alzheimer's Consortium.*
- 11:00 A54 **324.28** Acute ketamine treatment increases functional maturation of adult-born neurons at the onset of behavioral antidepressant effects. R. M. CARTER*; A. SOUMIER; H. CAMERON. *Unit on Neuroplasticity, NIMH/NIH, Brown Univ.*
- 8:00 A55 **324.29** Expression of DNA methyl transferases in adult tissue of adult rats exposes to LPS at postnatal day 14. C. M. MARSTERS*; Q. PITTMAN. *Univ. of Calgary - Hotchkiss Brain Inst.*

POSTER

325. Synapse Formation: Cellular Mechanisms

Theme A: Development

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 A56 **325.01** Differential roles of Rac-GAP α -chimerin isoforms in cognitive function and neuronal morphogenesis. R. IWATA; H. MIZUNO; M. IWAMA; H. GOTO; M. TANAKA; S. ITOHARA; T. IWASATO*. *Natl. Inst. of Genet., RIKEN Brain Sci. Inst.*
- 9:00 A57 **325.02** • Distinct postnatal developmental refinements of parvalbumin basket and chandelier cell terminals in monkey prefrontal cortex. G. D. HOFTMAN*; K. N. FISH; D. A. LEWIS. *Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 10:00 A58 **325.03** Differential localization of Eph ligands and receptors in developing hippocampal neurons. A. T. HADER*; M. R. PLUMMER. *Rutgers Univ.*
- 11:00 A59 **325.04** • Changes in GABA_A receptor-mediated synaptic transmission during postnatal development of monkey dorsolateral prefrontal cortex. T. MIYAMAE*; D. E. PAFUNDO; H. YOSHINO; D. C. ROTARU; G. B. ERMERTROUT; G. GONZALEZ-BURGOS; D. A. LEWIS. *Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh.*
- 8:00 A60 **325.05** Effects of in ovo blockade of the spontaneous depolarization wave on functional synaptogenesis in the embryonic brainstem nucleus. Y. MOMOSE-SATO*; Y. TASHIRO; T. NAKAMORI; S. H. E. R. MULLAH; K. SATO. *Kanto Gakuin Univ., Col. Human & Envrn. Studies, Komazawa Women's Univ. Fac. Human Hlth.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 A61 **325.06** Motor neurons receive direct monosynaptic connection from cortico-spinal tract in the rat during early postnatal period. S. FUKUDA*; H. MAEDA; N. MURABE; H. KAMEDA; M. SAKURAI. *Teikyo Univ. Sch. of Med. Dept. of Physiol.*
- 10:00 A62 **325.07** GluN2A cytoplasmic tail is required for reinstating miniNMDAR currents and layer 4 to layer 2/3 LTP in GluN2A KO mouse visual cortex. J. ZHAO*; M. A. PHILLIPS; Y. MURATA; S. D. CLARK; M. CONSTANTINE-PATON. *McGovern Inst. for Brain Res., MIT.*
- 11:00 A63 **325.08** Nogo-A is a negative regulator for synaptogenesis in dissociated hippocampal neurons. S. KRAMER*; A. DELEKATE; M. ZAGREBELSKY; M. KORTE; M. SCHWAB. *Univ. of Zürich/Eth, Tech. Univ. Braunschweig.*
- 8:00 A64 **325.09** ▲ Interleukin-2 induces plasticity of retino-collicular pathway: Cholinergic and glutamatergic systems involvement. S. E. ARAÚJO*; N. N. T. TAVARES; C. A. SERFATY; A. SHOLL-FRANCO; P. C. CAMPELLO-COSTA. *Federal Univ. of Rio De Janeiro/ Fluminense Federal Univ., Federal Univ. of Rio de Janeiro, Fluminense Federal Univ.*
- 9:00 A65 **325.10** Kruppel-like factor 4 (KLF4) regulates leptin-dependent synaptogenesis in hippocampal neurons. M. DHAR*; M. ZHU; A. J. LESIAK; S. M. APPELYARD; G. A. WAYMAN. *Washington State Univ.*
- 10:00 A66 **325.11** Synaptic and extrasynaptic distribution of the receptor tyrosine kinase Met during postnatal development in the mouse cortex. K. L. EAGLESON*; T. A. MILNER; P. LEVITT. *Keck Sch. of Med. of USC, Weill Cornell Med. Col., The Rockefeller Univ.*
- 11:00 A67 **325.12** Embryonic development of forebrain control of the serotonin system: 5-HT4 receptors. A. CHEN; L. D. S. KELLEY; P. F. FOROUDI; K. D. HUBBERT; S. JANUSONIS*. *Univ. of California, Santa Barbara.*
- 8:00 A68 **325.13** Altered synaptogenesis in a rat model of subcortical band heterotopia, a cortical malformation causing mental retardation and epilepsy. F. WATRIN; R. TYZIO; E. BUHLER; L. WEINHARD; L. PETIT; F. MICHEL; H. KAWASAKI; A. REPRESA; J. MANENT*. *INMED/INSERM U901, Aix-Marseille Univ., Tokyo Univ.*
- 9:00 A69 **325.14** The importance of synapse dynamics in understanding changes in synapse density. S. A. SPANGLER*; L. A. NEEDLEMAN; X. LIU; A. K. MCALLISTER. *Univ. of California Davis.*
- 10:00 A70 **325.15** MHC1 and MEF2 interact to regulate the initial establishment of cortical connections. B. ELMER*; S. FLAVELL; M. GREENBERG; A. K. MCALLISTER. *Univ. California Davis, Rockefeller Univ., Harvard Med. Sch.*
- 11:00 B1 **325.16** Degeneration and regeneration of muscle fibers at synaptic segments cause age-related morphological alteration of neuromuscular junction. Y. LEE*; Y. LI; T. TAUB-MONTEMAYOR; W. THOMPSON. *Univ. of Texas.*
- 8:00 B2 **325.17** Semaphorin 5a regulates synaptogenesis in the mouse hippocampus. Y. DUAN*; S. WANG; R. MATSUOKA; A. L. KOLODKIN; R. J. GIGER. *Univ. of Michigan, Howard Hughes Med. Institute, The Johns Hopkins Univ. Sch. of Med., UCSF Sch. of Med.*
- 9:00 B3 **325.18** Role of terminal Schwann cells in neuromuscular synaptic maturation during early postnatal development. I. SMITH; M. MIKESH; Y. LEE; W. J. THOMPSON*. *Univ. Texas.*
- 10:00 B4 **325.19** PTB proteins regulate alternative splicing of PSD-95 and synapse maturation during development. S. ZHENG*; E. GRAY; G. CHAWLA; B. T. PORSE; T. O'DELL; D. L. BLACK. *HHMI/UCLA, UCLA, Univ. of Copenhagen, UCLA, HHMI/UCLA.*

POSTER

326. Activity-Dependent Changes in Connectivity

Theme A: Development

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 B5 **326.01** Precisely timed increase in intracellular calcium regulated by coordinated changes in membrane excitability during development. H. WATARI*; E. A. NAVARRETE; A. J. TOSE; M. M. BOSMA. *Univ. of Washington, Univ. of Washington.*
- 9:00 B6 **326.02** Calcium waves in the developing avian telencephalon. C. R. EASTON*; W. E. WOOD; D. J. PERKEL; W. J. MOODY. *Univ. of Washington.*
- 10:00 B7 **326.03** Influence of cholinergic retinal waves on the development of ipRGC light-response properties. L. A. KIRKBY*; D. A. ARROYO; M. B. FELLER. *UC Berkeley.*
- 11:00 B8 **326.04** Inhibitory neurotransmission limits cell participation during glutamatergic retinal waves. A. FIRL*; G. SACK; Z. NEWMAN; H. TANI; M. FELLER. *UC Berkeley, Stanford.*
- 8:00 B9 **326.05** Direct analyses of NMDA receptor-mediated refinement of barrel neuron dendrites in neonatal mouse somatosensory cortex. H. MIZUNO*; W. LUO; Y. M. SAITO; S. ITOHARA; T. IWASATO. *Natl. Inst. of Genet., The Grad. Univ. for Advances Studies (SOKENDAI), RIKEN BSI.*
- 9:00 B10 **326.06** Genetic perturbation of E/I balance affects excitatory synaptogenesis in zebrafish. Q. YAN*; A. HILL; J. E. DALLMAN. *Univ. of Miami.*
- 10:00 B11 **326.07** Premature expression of KCC2 in embryonic zebrafish motoneurons using the genetically-encoded Gal4/UAS activation system. L. D. KNOGLER*; M. LIAO; P. DRAPEAU. *Univ. of Montreal.*
- 11:00 B12 **326.08** ● Functional *in vitro* characterization of the development of GABAA receptor alpha 1 and 5 subunits in frontal cortex cultures. B. M. BADER; M. ZWAR; C. FAHRUN; K. JÜGELT; O. H. SCHROEDER*; A. VOSS. *NeuroProof GmbH.*
- 8:00 B13 **326.09** Synaptic integration within a neurogenic niche: The role of competition in axonal refinement. C. LOPEZ; R. CHITTAJALLU; T. NAKASHIBA; K. A. PELKEY; S. TONEGAWA; C. J. MCBAIN*. *NIH, MIT.*
- 9:00 B14 **326.10** Choroid plexus-derived Otx2 persistently regulates cortical plasticity in adulthood. H. H. LEE*; J. SPATAZZA; A. JOLIOT; A. A. DI NARDO; A. PROCHIANTZ; T. K. HENSCH. *Children's Hosp. Boston, Harvard Med. Sch., Collège de France.*
- 10:00 B15 **326.11** Developmental immature activities of nigro- and cortico-striatal pathways dampen before pup locomotion. N. DEHORTER; D. C. FERRARI; F. MICHEL*; Y. ROTROU; C. HAMMOND. *INMED - INSERM U901, INSERM Unité 676.*
- 11:00 B16 **326.12** Developmental reorganization of auditory nerve synapses onto fusiform cells in mouse dorsal cochlear nucleus. M. SEDLACEK*; S. D. BRENOWITZ. *NIDCD/NIH.*

- 8:00 B17 **326.13** ▲ Properties of spontaneous waves of activity in developing cerebral cortex studied with a microscopy-compatible microfluidic electrode array. K. WEIR; A. SCOTT; C. EASTON; S. MOEN; W. HUYNH; A. FOLCH; W. J. MOODY*. *Univ. of Washington*.
- 9:00 B18 **326.14** Experience-dependent functional maturation of intracortical parvalbumin-positive inhibitory circuit. Q. MIAO*; X. ZHANG. *Inst. of Neurosci. and State Key Lab. of Neuroscience, SIBS, CAS*.
- 10:00 B19 **326.15** Maturation of the inhibitory system in the mouse primary visual cortex. J. GAUDIAS; R. DEGRACIAS; K. VOGT*. *Biozentrum*.
- 11:00 B20 **326.16** *In vivo* two-photon calcium imaging reveals contributions of postsynaptic scaffold sap102 to early visual cortical network activity. Y. MURATA*; M. CONSTANTINE-PATON. *MIT*.
- 8:00 B21 **326.17** Novel relationships of epileptic discharges to cognition and behavior in an animal model of autism and epilepsy. G. N. BARNES*; P. WINZENBURGER; A. DOSHI. *Vanderbilt Univ. Sch. Med., Vanderbilt Univ.*
- 9:00 B22 **326.18** Regulation of cortical development and function by the transcription factor neurod2. F. CHEN*; K. ATES; P. M. DAS; F. E. JONES; B. J. HALL. *Tulane Univ., Tulane Univ., Tulane Univ.*
- 10:00 B23 **326.19** The role of neuronal activity in cortical axon growth: A time-lapse study using optogenetic control. O. MALYSHEVSKAYA; Y. SHIRAIISHI; Y. TANABE*; E. S. RUTHAZER; N. YAMAMOTO. *Osaka Univ., McGill Univ, MNI*.
- 11:00 B24 **326.20** Developing retinal ganglion cell axon arbors exhibit different dynamic branch behaviors and elaboration in response to correlated and asynchronous visual stimulation. M. MUNZ*; D. GOBERT; J. POQUÉRUSSE; E. S. RUTHAZER. *Montreal Neurolog. Inst.*
- 8:00 B25 **326.21** VEGF modulates the synaptic transmission during embryonic development of mouse spinal cord. S. GUÉRIT; A. ALLAIN; W. CAZENAVE; P. BRANCHEREAU*; A. BIKFALVI. *LAMC - INSERM U1029 Univ. Bordeaux, Univ. Bordeaux - CNRS - INCIA - UMR 5287*.
- 9:00 B26 **326.22** Contribution of transmitter phenotype plasticity to long term potentiation. C. ALVAREZ-BARON; S. LEUTGEB; N. C. SPITZER*. *UCSD, UCSD*.
- 10:00 B27 **326.23** Photoperiod-induced plasticity of neurotransmitter expression, receptor matching and stress behavior. D. DULCIS*; P. JAMSHIDI; S. LEUTGEB; N. SPITZER. *Univ. of California San Diego, Kavli Inst. for Brain and Mind*.
- 11:00 B28 **326.24** Parvalbumin cell-specific thalamocortical plasticity in mouse visual cortex. K. B. QUAST; T. K. HENSCH*. *Harvard Univ.*
- 8:00 B29 **326.25** Role of Activity-dependent gene cp15 in development of visual cortical circuits. N. PICARD*; L. MIN; J. H. LESLIE; E. NEDIVI; M. FAGIOLINI. *Children's Hosp. Boston Harvard Med. Sch., The Picower Inst. for Learning and Memory, Massachusetts Inst. of Technol., The Picower Inst. for Learning and Memory*.
- 9:00 B30 **326.26** Retinotopic remapping can emerge from rewiring of intracortical connections. M. BUTZ*; A. VAN OYEN. *Ruhr-University Bochum, VU Amsterdam*.

- 10:00 B31 **326.27** Monoaminergic plasticity within the cingulate cortex after selective lesions in neonatal rats. M. G. CUNNINGHAM*; C. M. CONNOR; F. M. BENES. *McLean Hospital, Harvard Med., U Mass Med. Sch.*
- 11:00 B32 **326.28** Target recognition of direction selective visual circuits mediated by contactins. J. A. OSTERHOUT; P. P. MULTANI; Y. YOSHIHARA; A. D. HUBERMAN*. *UCSD, Riken Brain Sci. Inst.*

POSTER

327. Monoamines

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 B33 **327.01** *C. elegans* hermaphrodite specific motor neurons (HSNs) serve as a humoral source of serotonin for normal egg-laying in *hlh-3(bc277)*. S. V. RAUT; A. ALFONSO*. *Univ. Illinois Chicago*.
- 9:00 B34 **327.02** Calcium mediates synergistic interactions between biochemical pathways in an identified neuron. C. B. STARKEY; A. R. HAYES; M. E. PAULEY; B. L. ANTONSEN*. *Marshall Univ.*
- 10:00 B35 **327.03** ● Regulation of temperature preference behaviour by dopamine in *Drosophila*. S. BANG*; J. CHUNG. *Seoul Natl. Univ.*
- 11:00 B36 **327.04** Monoamines activate global peptidergic signaling cascades to inhibit nociceptive responses in *Caenorhabditis elegans*. V. HAPIAK*; A. STEIN; A. ORTEGA; R. KOMUNIECKI. *Univ. of Toledo*.
- 8:00 B37 **327.05** Regulation of neurotransmitter synthesis and transport by ascorbate. E. MEREDITH*; J. MAY. *Vanderbilt Univ.*
- 9:00 B38 **327.06** Palmitoylation targets AKAP79 protein to lipid rafts and promotes its regulation of calcium-sensitive adenylyl cyclase type 8. I. DELINT-RAMÍREZ*; D. WILLOUGHBY; L. J. AYLING; D. M. F. COOPER. *Univ. Autónoma De Nuevo León, Univ. of Cambridge*.
- 10:00 B39 **327.07** Antipsychotic drugs influence striatal dopamine nerve terminals via actions on D2 receptors and vesicles. L. J. WALLACE*; A. D. KLAUSING. *Ohio State Univ., Ohio State Univ.*
- 11:00 B40 **327.08** ▲ Disrupted DISC1-serine racemase binding results in D-serine depletion and schizophrenia-like behavioral alterations. S. ABAZYAN*; M. MA; B. ABAZYAN; J. NOMURA; C. YANG; S. SESHADRY; A. SAWA; S. SNYDER; M. PLETNIKOV. *Johns Hopkins Univ., Johns Hopkins Univ., Hiroshima Univ. Grad. Sch. of Biomed. Sci.*
- 8:00 B41 **327.09** Investigating putative monoamine oxidases in *Caenorhabditis elegans*. R. BASU; N. FILKIN; S. KAUSHAL; J. S. DUERR*. *Ohio Univ., Arizona State Univ., Ohio Univ.*
- 9:00 B42 **327.10** Role of MAST3 kinase in PP2A regulation and neuronal activity in striatum. V. MUSANTE*; E. ANDRADE; J. KANYO; P. GREENGARD; A. C. NAIRN. *Yale Univ. Sch. of Med., Rockefeller Univ., W.M. Keck Foundation, Keck MS and Proteomics, Yale Univ., Rockefeller Univ.*
- 10:00 B43 **327.11** The role of dopamine signalling in the GABAergic neuron development and motor behavior in zebrafish larvae. B. R. SOUZA*; V. TROPEPE; M. ROMANO-SILVA. *Univ. Federal De Minas Gerais, Univ. of Toronto*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 B44 **327.12** Functional role of dopamine D3 receptors in striatonigral terminals: Modulation of transmitter release. J. A. AVALOS*, JR; I. SILVA; R. CRUZ-TRUJILLO; A. FLORES-PEREZ; F. PAZ-BERMEDEZ; J. ACEVES; D. ERLIJ; B. FLORAN. *Ctr. De Investigación Y De Estudios Avanzados Del IPN, Facultad de Ciencias Naturales Univ. Autónoma de Querétaro, SUNY Downstate.*
- 8:00 B45 **327.13** Tissue type plasminogen activator (tPA) activity in dopamine D3 receptor knock-out mouse brain. A. CASTORINA*; G. LEGGIO; F. DRAGO; V. D'AGATA. *Univ. of Catania, Univ. of Catania.*
- 9:00 B46 **327.14** • Intracellular calcium signaling in dopaminergic neurons is required for *Drosophila* flight. S. SADAF*; S. P. SANE; S. BIRMAN; G. HASAN. *Natl. Ctr. For Biol. Sci., Genet. and Physiopathology of Neurotransmission, Lab. de Neurobiologie, Ctr. Natl. de la Recherche Scientifique, Ecole Supérieure de Physique et de Chimie Industrielles ParisTech.*
- 10:00 B47 **327.15** A comprehensive study for effects of DSP4 on the expression of noradrenergic phenotypes in cultured cells and its potential mechanisms. Y. WANG*; P. MUSICH; Y. ZOU; M. ZHU. *Dept. of Biomed. Sciences, Col. of Medicine, East Tennessee State Un, Dept. of Biomed. Sciences, Col. of Medicine, East Tennessee State Un.*
- 11:00 B48 **327.16** 5-HT_{2A} receptor activation is reduces the accumulation of drebrin in dendritic spines. R. T. ROPPOINGI; K. HANAMURA; T. SHIRAO*. *Gunma Univ. Grad Sch. Med.*
- 8:00 B49 **327.17** Convergent second messenger pathways mediate 5-HT_{1B}-mediated potentiation of AMPA receptors temporosynaptic-CA1 synapses. A. M. VAN DYKE; S. M. THOMPSON*. *Univ. Maryland Baltimore Sch. Med.*
- 9:00 B50 **327.18** Neuronal deletion of Akt-473 in mice causes serotonin receptor upregulation and desensitization. C. SAUNDERS; H. J. MATTHIES*; M. A. SIUTA; S. D. ROBERTSON; A. DAVIS; J. SAUER; D. AIREY; P. GRESCH; J. SCHETZ; K. D. NISWENDER; J. M. VEENSTRA-VANDERWEELE; A. GALLI. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Univ. of North Texas Hlth. Sci. Ctr., Vanderbilt Univ.*
- 10:00 B51 **327.19** A_{2A}-D2 receptors coactivation stimulates depolarization- induced GABA release via the PLC-PKC signaling pathway in striatopallidal terminals in the rat. S. RECILLAS; T. GARCÍA-MORENO; F. PAZ-BERMUDEZ; J. ACEVES; D. ERLIJ; G. B. FLORAN*. *CINVESTAV-IPN, CINVESTAV-IPN, SUNY Downstate Med. Ctr., CINVESTAV IPN.*
- 11:00 B52 **327.20** ▲ Involvement of GIRK channels on the acute inhibitory effect of reboxetine on locus coeruleus neurons. L. UGEDO*; I. FERNANDEZ-AEDO; M. TORRECILLA. *Univ. Basque Country.*
- 8:00 B53 **327.21** Evidence for molecular heterogeneity among projection cells in the brainstem nucleus locus coeruleus. D. J. CHANDLER*; B. D. WATERHOUSE. *Drexel Univ. Col. of Med.*
- 9:00 B54 **327.22** Evaluation of the neurotrophic effect of VGLUT2 in midbrain dopamine neurons. G. FORTIN*; C. FLORENCE; D. THIBAUT; M. AL-BAGHDADI; M. BOURQUE; L. TRUDEAU. *Univ. de Montréal, GRSNC.*
- 10:00 B55 **327.23** Ultrastructural and optogenetic evidence for dual neuronal signaling by dopamine neurons of the ventral tegmental area (VTA). S. ZHANG*; X. LI; H. WANG; J. QI; J. P. BRITT; A. BONCI; M. MORALES. *Natl. Inst. of Health, Natl. Inst. on Drug Abuse, IRP.*
- 11:00 B56 **327.24** The dopaminergic innervation of the macaque prefrontal area 10: A combined experimental and simulation study. I. A. SPÜHLER*; A. HAURI; J. VEZOLI; H. KENNEDY; K. A. C. MARTIN. *Inst. of Neuroinformatics, Univ. of Zurich and ETH Zurich, Ernst Strüngmann Inst. (ESI) for Neurosci. in Cooperation with Max Planck Society, INSERM U846, Stem Cell and Brain Res. Institute; Univ. de Lyon, Univ. Lyon1.*
- 8:00 B57 **327.25** Dopamine and serotonin co-containing cells in the paraventricular organ of non-mammalian vertebrates? K. YAMAMOTO*; P. AFFATICATI; R. FONTAINE; C. BUREAU; P. VERNIER. *Neurobio. & Develop. (UPR3294), CNRS-Gif.*
- 9:00 B58 **327.26** Organization of the dopaminergic innervation in mice hippocampus. G. DAL BO*; J. ROCCHETTI; E. ISINGRINI; L. MOQUIN; A. GRATTON; S. EL MESTIKAWY; B. GIROS. *Douglas Mental Hlth. Univ. Inst., Univ. Pierre et Marie Curie.*
- 10:00 B59 **327.27** A microarray-based screen for transcription factors expressed in fetal pontine noradrenergic neurons and examination of their functional roles in catecholamine-synthesizing enzyme gene expression. T. FUSE*; K. UCHIDA; H. YOKOHASHI; T. AIYOSHIZAWA; Y. IWASAKI; K. KINOSHITA; G. DAS; C. TANAKA; H. TOMITA; S. OHARA; K. KOBAYASHI; K. ITOI. *Tohoku Univ. Grad. Sch. Info. Sci., Kochi Univ., Tohoku Univ. Grad. Sch. Info. Sci., Tohoku Univ. Grad. Sch. Med., Matsumoto Med. Ctr., Fukushima Med. Univ., Tohoku Univ. Grad. Sch. Med.*
- 11:00 B60 **327.28** Are the enzymes of the catecholamine biosynthetic pathway locally synthesized in the axon? N. M. GERVASI; S. N. VOHRA; M. A. MACGIBENY; A. N. KAR; A. E. GIOIO*; A. J. MAKUSKY; L. OLANO; S. P. MARKEY; B. B. KAPLAN. *NIH, NIMH-, NIH, NIMH-.*
- 8:00 B61 **327.29** Endogenous 5-HT_{1A} receptor-mediated feedback inhibition of dorsal raphe serotonin neurons in the SERT-knockout mouse. M. SOIZA-REILLY*; K. E. PRICE; K. G. COMMONS. *Children's Hosp. Boston, Harvard Med. Sch.*
- 9:00 B62 **327.30** Abstinence from chronic nicotine changes the response of dorsal raphe serotonin neurons to an acute stressor. S. BANG*; K. E. PRICE; K. G. COMMONS. *Children's Hosp. Boston, Harvard Med. Sch.*

POSTER

328. Nicotinic Receptors: Physiology and Function I

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 B63 **328.01** • Multiple nicotinic receptor subtypes modulate nicotine-evoked dopamine efflux in rat striatum. V. GRINEVICH; E. BUDYGIN; R. MAEX; B. GUTKIN; T. A. HAUSER*; M. BENCHERIF. *Targacept Inc, Wake Forest Univ. Hlth. Sci., Inst. des Etudes Cognitives, LNC, INSERM.*
- 9:00 B64 **328.02** • A computational model dissecting out the contribution of various receptor subtypes to nicotine-evoked dopamine efflux. R. MAEX*; V. GRINEVICH; E. BUDYGIN; M. BENCHERIF; B. GUTKIN. *Ecole Normale Supérieure, Targacept Inc., Wake Forest Univ. Hlth. Sci.*
- 10:00 B65 **328.03** • Subunit-specific effects of modifying backbone flexibility in extracellular domain alpha4beta2 nicotinic receptors. G. B. WELLS*; S. B. DHANANI; R. M. SCOTT; A. M. PERSON. *Texas A&M Univ. Hlth. Sci. Ctr.*

- 11:00 B66 **328.04** The effects of β -amyloid on neuronal nicotinic acetylcholine receptors expressed in xenopus oocytes. S. N. SUDWEEKS*; M. L. ANDERSON; C. JACOBSEN; K. CARPENTER; B. HANSEN; B. TULLIS. *Brigham Young Univ.*
- 8:00 B67 **328.05** ▲ Engineering nicotine insensitive and hypersensitive $\alpha 4\beta 2$ nAChRs via selective disruption of consensus sites in the M3-M4 cytoplasmic loop of the $\alpha 4$ subunit. E. AVILES-PAGAN; N. M. BIAGGI-LABIOSA; D. CABALLERO-RIVERA; N. APONTE-SANTIAGO; C. A. BAEZ-PAGAN*; J. A. LASALDE-DOMINICCI. *Univ. of Puerto Rico, Univ. of Puerto Rico.*
- 9:00 B68 **328.06** Ethanol interactions with nicotinic receptors in brainstem cholinergic centers. S. L. WOLFMAN*; J. MCDAID; K. GALLAGHER; D. S. MCGEHEE. *Univ. of Chicago, Univ. of Chicago.*
- 10:00 B69 **328.07** Contribution of $\alpha 3\beta 4$ nicotinic receptors to habenular related behaviors. S. FRAHM*; M. SLIMAK; S. AUER; J. ABLES; I. IBANEZ-TALLON. *Max-Delbrueck-Centrum, Emergent BioSolutions, Rockefeller Univ.*
- 11:00 B70 **328.08** The role of the beta2 C loop in neuronal nicotinic acetylcholine receptor allosteric modulation. M. M. LEVANDOSKI*; T. KLJAIC; J. T. HENRY; C. A. SHORT. *Grinnell Col.*
- 8:00 C1 **328.09** Evaluation of α -Conotoxins on $\alpha 6/ \alpha 3\beta 2\beta 3$, $\alpha 3\beta 2$ and $\alpha 3\beta 2\beta 3$ nAChRs. M. M. WELTZIN*; J. B. EATON; R. J. LUKAS; M. MCINTOSH; P. WHITEAKER. *The Barrow Neurolog. Inst., Univ. of Utah.*
- 9:00 C2 **328.10** Ionotropic acetylcholine receptors requiring the receptor subunit ACR-12 coordinate motor circuit activity in *Caenorhabditis elegans*. N. BANERJEE; H. PRESCOTT; A. PHILBROOK; M. M. FRANCIS*. *Univ. Mass Med. Sch.*
- 10:00 C3 **328.11** Novel bupropion-related compounds selective for low sensitivity vs. high sensitivity $\alpha 4\beta 2$ -nicotinic acetylcholine receptors. S. K. MARXER-MILLER*; M. BHAKTA; J. EATON; M. DAMAJ; F. CARROLL; B. BLOUGH; R. LUKAS. *Barrow Neurolog. Inst., Virginia Commonwealth Univ., Res. Triangle Inst.*
- 11:00 C4 **328.12** ● Identification and modeling of ligand receptor interactions between the positive allosteric modulator des-formylflustrabromine and the $\alpha 4\beta 2$ nicotinic acetylcholine receptor. Y. HUANG*; M. M. WELTZIN; N. GERMAN; A. JAIN; Z. BIKADI; R. A. RICHARD A GLENNON; M. K. SCHULTE. *Univ. of Alaska Fairbanks, Univ. of Alaska Fairbanks, Virginia Commonwealth Univ., Virtua Drug Ltd.*
- 8:00 C5 **328.13** Understanding the molecular basis of high-affinity for nicotine in AChRs. P. PUROHIT; S. JADEY; A. AUERBACH*. *Univ. Buffalo.*
- 9:00 C6 **328.14** Mutations on the $\alpha 7$ nAChR reduce Calcium permeability. J. COLON-SAEZ*; J. YAKEL. *NIEHS, NIEHS.*
- 10:00 C7 **328.15** ● Investigating mechanisms of potentiation by the positive allosteric modulator des-formylflustrabromine using cysteine modification approaches. M. K. SCHULTE*; Y. HUANG; R. A. GLENNON. *Univ. Alaska Fairbanks, Virginia Commonwealth Univ.*

- 11:00 C8 **328.16** ▲ Chronic varenicline treatment down-regulates function and expression of $\alpha 4\beta 2$ nAChRs expressed on *Xenopus* oocytes. N. APONTE-SANTIAGO; N. M. BIAGGI-LABIOSA; D. CABALLERO-RIVERA; E. AVILES-PAGAN; C. A. BAEZ-PAGAN; E. L. M. OCHOA; J. A. LASALDE-DOMINICCI*. *Univ. Puerto Rico, Univ. of California at Davis.*
- 8:00 C9 **328.17** ● Interaction of rabies virus glycoprotein fragments with the acetylcholine binding protein. S. A. RIDEOUT*; M. B. HARRIS; K. HUEFFER; M. K. SCHULTE. *Univ. of Alaska Fairbanks, Univ. of Alaska Fairbanks.*

POSTER

329. Nicotinic Receptors: Regulation, Function, and Trafficking

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 C10 **329.01** Role for $\alpha 6$ nicotinic receptors in L-dopa-induced dyskinesias in Parkinsonian mice. C. CAMPOS*; K. PARK; M. HRACHOVA; A. MALLELA; L. Z. HUANG; J. M. MCINTOSH; S. R. GRADY; M. QUIK. *SRI Intl., Univ. of Utah, Univ. of Colorado.*
- 9:00 C11 **329.02** Nicotine reduces L-dopa induced dyskinesias in monkeys by acting at presynaptic nicotinic receptors on nigrostriatal dopaminergic terminals. A. MALLELA*; M. CHIN; T. BORDIA; J. M. MCINTOSH; X. A. PEREZ; M. QUIK. *SRI Intl., Univ. of Utah.*
- 10:00 C12 **329.03** Alterations in $\alpha 4\beta 2^*$ nicotinic acetylcholinergic receptors in pre-weanling rats in response to *in utero* nicotine exposure. B. G. HOEGBERG; P. M. ANDERSON; D. C. PERRY*. *George Washington Univ. Sch. Med.*
- 11:00 C13 **329.04** ● Open channel stabilization (OCS) and sub-threshold cooperative opening (SCO) of nicotinic $\alpha 7$ acetylcholine receptors by choline. N. B. FEDOROV*; J. D. GRAEF; L. BENSON; P. M. LIPPIELLO; M. BENCHERIF. *Targacept.*
- 8:00 C14 **329.05** ● Varenicline activates select regions in the rat forebrain; nicotinic acetylcholine receptor $\alpha 4\beta 2$ -dependent and -independent responses. H. R. VAN WEERING*; J. JACOBSEN; G. GILMOUR; E. SHER; J. D. MIKKELSEN. *Neurobio. Res. Unit (NRU), Copenhagen Univ. Hospital, Rigshospitalet, Lilly Res. Centre, Eli Lilly & Co. Ltd.*
- 9:00 C15 **329.06** *Drosophila melanogaster* Giant Fiber System as a model for the characterization of $\alpha 7$ nAChRs modulators. M. MEJIA*; M. D. HEGHINIAN; F. MARÍ; T. A. GODENSCHWEGE. *Florida Atlantic Univ., Florida Atlantic Univ.*
- 10:00 C16 **329.07** The combined potentiation effect of cyclosporine A and genistein on $\alpha 7$ nAChR currents depends upon time course of expression in *Xenopus* oocytes. M. ISLAM*; P. SCHWARTZ; J. ROSE; J. FARLEY. *Indiana University, Bloomington, Duke Univ. Med. Sch.*
- 11:00 C17 **329.08** Molecular determinants for *in vitro* expression of $\alpha 6$ nicotinic acetylcholine receptors. A. B. JENSEN; A. A. JENSEN*. *Univ. of Copenhagen.*
- 8:00 C18 **329.09** Trophic factor-induced excitatory synapse formation: Regulation of postsynaptic receptor expression and clustering in *Lymnaea stagnalis*. N. M. SCHMOLD*; N. I. SYED. *Univ. of Calgary.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 C19 **329.10** Optimized functional expression of alpha9* nAChRs. O. M. FILCHAKOVA*; M. MCINTOSH. *Univ. of Utah, Univ. of Utah.*
- 10:00 C20 **329.11** Analogs of 3-pyridyl ether maintain competitive binding with repositioning of pyridine nitrogen. A. E. OGUNJIRIN; J. M. FORTUNAK; L. L. BROWN; M. I. DAVILA-GARCIA*. *Howard Univ., Howard Univ., Univ. of Virgin Island, Howard Univ. Coll Med.*
- 11:00 C21 **329.12** $\alpha 6$ -containing neuronal nicotinic acetylcholine receptors: Effects of chronic nicotine treatment and inclusion of $\beta 3$ subunits. B. J. HENDERSON*; E. D. W. MACKEY; S. MCKINNEY; R. M. DRENAN; H. A. LESTER. *Caltech, Purdue Univ.*
- 8:00 C22 **329.13** Expressing ($\alpha 6/3$) $\alpha 4\beta 2\beta 3$ nicotinic acetylcholine receptors (nachrs) from dimer / trimer pairs. P. WHITEAKER*; M. BHAKTA; R. J. LUKAS; L. LUCERO. *St. Joseph's Hosp.*
- 9:00 C23 **329.14** Cross-regulation between nicotinic acetylcholine (nAChRs) and serotonin (5HT3Rs) receptors in sympathetic neurons: Role in autonomic function. A. W. WONG*; V. A. CAMPANUCCI. *Univ. of Saskatchewan.*
- 10:00 C24 **329.15** • Nicotinic partial agonists as smoking cessation aids - effects on anxiety-like behavior and receptor regulation. J. R. TURNER*; P. HUSSMANN; J. KLEHM; K. J. KELLAR; J. A. BLENDY. *Univ. of Pennsylvania, Georgetown Univ.*
- 11:00 C25 **329.16** Neuronal nicotinic acetylcholine receptors in pancreatic cancer. R. BOYD*. *Ohio State Univ.*
- 8:00 C26 **329.17** Nicotine induces chromatin remodeling through decreases in the methyltransferases glp, g9a, setdb1 and levels of h3k9me2. K. A. CHASE*; R. P. SHARMA. *Univ. of Illinois At Chicago.*
- 9:00 C27 **329.18** ▲ Potential implications of cholesterol, caveolin-1 and phosphatidylinositol 4,5-bisphosphate (pip2) on the novel alpha c418w mutant nachr at lipid rafts. M. Y. PULLEN-COLON*; J. OYOLA-CINTRON; D. CABALLERO-RIVERA; L. BALLESTER; L. MARTINEZ; R. Y. RIOS; C. J. NOGUERAS-ORTIZ; C. A. BAEZ-PAGAN; O. QUESADA; J. A. LASALDE-DOMICCI. *Univ. of Puerto Rico, Rio Piedras Campus, Univ. of Puerto Rico, Rio Piedras Campus, California State Univ. Dominguez Hills, Univ. of Puerto Rico, Rio Piedras Campus.*
- 10:00 C28 **329.19** Effects of nicotine on the expression of fluorescent alpha5 and alpha5D398N subunits. C. DILWORTH*; C. B. MAROTTA; A. WU; D. A. DOUGHERTY; H. A. LESTER. *Caltech, Caltech, Brown Univ.*
- 11:00 C29 **329.20** Nicotinic control of glutamate receptor trafficking. A. W. HALFF*; D. GÓMEZ-VARELA; D. K. BERG. *UCSD, Max-Planck for Exptl. Med.*
- 8:00 C30 **329.21** Mobility of presynaptic nicotinic receptors and relevance for glutamate release. D. GOMEZ-VARELA*, Sr.; D. K. BERG. *Univ. of California San Diego, Max-Planck for Exptl. Med.*
- 9:00 C31 **329.22** Human alpha 4 nAChR polymorphisms associated with decreased risk for smoking alter $\alpha 4\beta 2$ nAChR expression and interacting proteins examined *in vitro*. T. D. MCCLURE-BEGLEY*; P. XIE; J. GELERNTER; J. LINDSTROM; M. R. PICCIOTTO. *Yale Univ., Yale Univ. Sch. of Med., Univ. of Pennsylvania Sch. of Med., Yale Univ.*
- 10:00 C32 **329.23** Investigating whether nicotinic $\alpha 7$ receptor-STAT3 immune signaling is metabotropic. T. KOPERNIAK; S. MADASU; A. SAWANT; A. CHANDRASHEKAR; N. SONI; P. NAIKI; C. PENG; R. H. LORING*. *Northeastern Univ., Univ. of Florida.*

POSTER

330. Potassium Channels

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 C33 **330.01** • Pharmacological modulation of Kv3.1 potassium currents. M. R. BROWN*; C. H. LARGE; G. S. ALVARO; L. K. KACZMAREK. *Yale Univ. Sch. of Med., Autifony Therapeut. Limited.*
- 9:00 C34 **330.02** • Pharmacological modulation of Kv3 potassium channels regulates the firing of parvalbumin-positive cortical interneurons. C. H. LARGE*; M. ROSATO-SIRI; C. VIRGINIO; E. ZAMBELLO; C. MUTINELLI; G. S. ALVARO. *Autifony Therapeut., Glaxosmithkline.*
- 10:00 C35 **330.03** Inhibition of calcineurin-Dependent suppression of Kv1.1 current and associated changes in membrane capacitance in Xenopus oocytes by genistein, cyclosporine A, and dynasore: An important role for endocytosis. J. FARLEY*; M. ISLAM; B. HALLAHAN; P. SCHWARTZ; D. MILLER. *Indiana Univ., Univ. of Kentucky.*
- 11:00 C36 **330.04** Association and colocalization of plasma membrane Kv2.1 voltage-gated potassium channels with intracellular ryanodine receptor calcium-release channels. D. N. MANDIKIAN*; O. CERDA; A. EVANS; D. SCHNEIDER; J. S. TRIMMER. *Univ. of California, Davis.*
- 8:00 C37 **330.05** Active K⁺ conductance and passive membrane properties of NG2 cells. C. CHAN*; J. WENG; T. CHEN; C. LIEN. *Inst. of Neuroscience, Natl. Yang-Ming Univ.*
- 9:00 C38 **330.06** Mechanism of external pH sensitivity in Ether-a-go-go family channels. M. KAZMIERCZAK*; X. ZHANG; K. PIVAROFF; B. CHEN; J. SASSIC; T. JEGLA. *Penn State Univ., Sanford-Burnham Med. Res. Inst., The Scripps Res. Inst.*
- 10:00 C39 **330.07** ▲ Conservation of Ether-a-go-go family potassium channels in Cnidarians. A. MARTINSON; A. SAADAT; T. J. JEGLA*. *Penn State Univ.*
- 11:00 C40 **330.08** CB1/CB2 receptor-independent suppression of outward K⁺ currents by win55212-2 in the rat retinal ganglion cells. Z. WANG*; C. ZHANG; S. WANG; Y. MIAO; L. DONG; X. YANG; S. JIANG; J. WANG; X. YANG. *Fudan Univ.*
- 8:00 C41 **330.09** Donepezil in low micromolar concentrations modulates voltage-gated potassium currents in rat hippocampal neurons. E. I. SOLNTSEVA*; J. V. BUKANOVA. *Ctr. of Neurol.*
- 9:00 C42 **330.10** Regulation of neuronal survival-death dynamics via chemokine SDF-1 α -induced distinct modulations in Kv2.1 channel. A. J. SHEPHERD*; L. LOO; A. D. MICKLE; Y. M. USACHEV; D. P. MOHAPATRA. *The Univ. of Iowa Carver Col. of Med.*
- 10:00 C43 **330.11** Developing light-activated ion channels. J. KANG*; L. WANG. *Salk Inst., Salk Inst.*
- 11:00 C44 **330.12** Activity-dependent transcriptional regulation of m-type k⁺ channels by akap79/150-mediated nfat actions. J. ZHANG*; M. SHAPIRO. *UTHSCSA, UTHSCSA.*
- 8:00 C45 **330.13** Functional implications of Kv7 channel phosphorylation. I. SALZER; W. CHEN; H. KUBISTA; G. LUBEC; S. F. BOEHM*; J. YANG. *Med. Univ. Vienna, Med. Univ. Vienna, Med. Univ. Vienna.*

POSTER

331. Calcium Activated Potassium Channels

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 C46 **331.01** Bradykinin promotes the chemotactic migration of human glioma cells via activation of Ca²⁺-dependent K⁺ and Cl⁻ channels. V. A. CUDDAPAH*; H. SONTHEIMER. *Univ. of Alabama at Birmingham*.
- 9:00 C47 **331.02** Expression of schizophrenia-associated human SK3 channel mutation in dopamine neurons of mice confers hyperphasic neural activity. M. E. SODEN*; G. L. JONES; L. S. ZWEIFEL. *Univ. of Washington*.
- 10:00 C48 **331.03** Systematic characterization of intrinsic properties of CA3 pyramidal neurons from aged rats. D. SIMKIN; M. M. OH*; J. F. DISTERHOFT. *Northwestern Univ. Med. Sch.*
- 11:00 C49 **331.04** Molecular mechanisms of ligand-gated suppression of slow afterhyperpolarization. P. V. BELAN*; A. V. DOVGAN; N. I. KONONENKO; V. P. CHERKAS; T. TSUGORKA; L. P. HAYNES; R. D. BURGOYNE. *Bogomoletz Inst. Physiol, Key State Lab. of Mol. and Cell. Biol., Univ. of Liverpool*.
- 8:00 C50 **331.05** BK channel current during action potentials of midbrain dopamine neurons. C. KIMM*; M. PUOPOLO; Z. M. KHALIQ; B. P. BEAN. *Harvard Med. Sch., Stony Brook Med. Ctr., NIH*.
- 9:00 C51 **331.06** ▲ Regulation of BK channel activity by ASICs in rat glial cells. M. YOUNG; P. CASTELLANO; E. PETROFF*. *Montclair State Univ., Montclair State Univ.*
- 10:00 C52 **331.07** Large conductance Ca²⁺-activated potassium (BK) channels limit the depolarized state of horizontal cells of the rodent retina. X. SUN*; X. LIU; A. A. HIRANO; S. BARNES; N. C. BRECHA. *David Geffen Sch. of Medicine, Univ. of California, Los Angeles (UCLA), Veterans Affairs, VAGLAHS, Dalhousie Univ., Jules Stein Eye Institute, UCLA*.
- 11:00 C53 **331.08** Presynaptic BK channels modulate ethanol-induced enhancement of GABAergic transmission in the rat central amygdala nucleus. Q. LI*; R. D. MADISON; S. D. MOORE. *Duke Univ. Med. Ctr., Durham VAMC, Duke Univ. Med. Ctr.*
- 8:00 C54 **331.09** Girk3 knockout mice show altered fear-conditioned learning and memory. M. E. TIPPS*; K. M. LATTAL; K. J. BUCK. *Univ. Texas, Oregon Hlth. & Sci. Univ., Portland Veterans Affairs Med. Ctr.*
- 9:00 C55 **331.10** Association of KCNJ6 with adult alcohol dependence early life stress induced adolescent alcohol drinking. G. SCHUMANN*. *Inst. of Psychiatry*.
- 10:00 C56 **331.11** Calcium-sensing regulatory of conductance for potassium (RCK) domains are critical to embold slo1 and related channel proteins with high sensitivity to ethanol. A. BUKIYA; J. LIU; A. SINGH; A. DOPICO*. *The Univ. of Tennessee HSC, Coll. Med., Dept. Pharmacol.*
- 11:00 C57 **331.12** SK channels regulate ethanol-associated plasticity and influence voluntary ethanol consumption. A. E. PADULA; N. M. STRAIGHT; W. C. GRIFFIN, III; P. J. MULHOLLAND*. *MUSC, MUSC*.

- 8:00 C58 **331.13** Insights into the structural mechanism underlying alcohol activation of GIRK channels. K. BODHINATHAN*; P. A. SLESINGER. *Peptide Biol. Lab, Salk Inst. For Biol. Studies*.
- 9:00 C59 **331.14** BK channel auxiliary subunits modulate behavioral adaptations to chronic ethanol exposure. C. CONTET*; D. LE; A. J. ROBERTS; S. N. TREISTMAN; G. F. KOOB. *Scripps Resch Inst., Univ. of Puerto Rico*.
- 10:00 C60 **331.15** Chronic ethanol-induced plasticity involves bidirectional modulation of NMDA receptors and Kv4.2 channels by KChIP3. K. SPENCER*; P. J. MULHOLLAND; L. J. CHANDLER. *Med. Univ. of South Carolina*.

POSTER

332. Glutamate Transporters

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 C61 **332.01** The glutamate transporter, GLT1, physically interacts with hexokinase and mitochondrial proteins and regulates mitochondrial mobility in astrocytes. J. G. JACKSON*; J. C. O'DONNELL; M. B. ROBINSON. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Children's Hosp. of Philadelphia, Univ. of Pennsylvania*.
- 9:00 C62 **332.02** AQP4 autoimmunity and the EAAT2 transporter in Neuromyelitis optica. C. STAUDENMAIER; A. WEISHAUP; B. GRÜNEWALD; C. L. SOMMER*; K. V. TOYKA; C. GEIS. *Univ. of Wuerzburg, Univ. of Wuerzburg*.
- 10:00 C63 **332.03** Effect of lipophilic binding domains on substrate transport and kinetics of the System xc- cystine/glutamate antiporter. S. A. PATEL*; J. L. NEWELL; P. J. DIAZ; N. R. NATALE; R. J. BRIDGES. *Univ. Montana*.
- 11:00 C64 **332.04** Raloxifene enhances astrocytic glutamate transporter GLT-1 expression in rat primary astrocytes. A. WEBB; A. FENNELL; D. SON; M. ASCHNER; E. Y. LEE*. *Meharry Med. Col., Vanderbilt Univ., Meharry Med. Col.*
- 8:00 C65 **332.05** Behavioral changes in mice with low ambient extracellular glutamate levels. E. LANGER*; D. E. FEATHERSTONE. *Univ. of Illinois Chicago*.
- 9:00 C66 **332.06** Developmental changes in neurotransmitter spillover at the retinogeniculate synapse. J. L. HAUSER; C. CHEN*. *Program in Neuroscience, Harvard Med. Sch., Children's Hosp, Harvard Med. Sch.*
- 10:00 C67 **332.07** Amphetamine-mediated internalization of the excitatory amino acid transporter EAAT3 in dopamine neurons. S. M. UNDERHILL*; M. LI; D. S. WHEELER; S. L. INGRAM; S. G. AMARA. *Univ. Pittsburgh, OHSU*.
- 11:00 C68 **332.08** GLT-1 up-regulation impairs learning of a novel object recognition task. F. MATOS-OCASIO*; A. HERNÁNDEZ; K. J. THOMPSON. *Ponce Sch. of Med. and Hlth. Sci.*
- 8:00 C69 **332.09** Genetic deletion of the glutamate transporter EAAC1 results in decreased pilocarpine-induced cell death. M. C. LANE*; E. N. KRIZMAN; B. E. PORTER; M. B. ROBINSON. *Children's Hosp. of Philadelphia*.
- 9:00 C70 **332.10** Ventral tegmental area glutamate neurons: Electrophysiological properties and projections. T. S. HNASKO*; G. O. HJELMSTAD; H. L. FIELDS; R. H. EDWARDS. *UCSD, Ernest Gallo Clin. and Res. Ctr., Univ. of California, San Francisco*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 D1 **332.11** The inward facing conformations of excitatory amino acids transporters have transitions to anion conducting states. C. B. DIVITO*; S. G. AMARA. *Univ. of Pittsburgh*.
- 11:00 D2 **332.12** Effect of angiotensin II on the glutamate uptake by hypothalamic primary astrocyte cultures. J. C. CRUZ*; M. M. LOPES; J. ANTUNES-RODRIGUES. *Univ. of São Paulo*.
- 8:00 D3 **332.13** The glutamate transporter GLT-1 regulates insulin signaling in the central nervous system. K. D. MEEKER*; J. S. MEABON; G. S. WATSON; N. LI; P. ZHU; D. G. COOK. *VA Med. Ctr., Univ. of Washington, Univ. of Washington, Veterans Affairs Med. Ctr. (VAPSHCS), Univ. of Washington*.
- 9:00 D4 **332.14** Surface dynamics of the astroglial glutamate transporter GLT-1. C. MURPHY ROYAL*; L. GROC; S. H. R. OLIET. *INSERM U862, IINS*.
- 10:00 D5 **332.15** Pax6 contributes to neuron-dependent induction of the astroglial glutamate transporter, GLT-1. M. GHOSH*; C. DONNELLY; Y. HSIEH; Y. YANG; J. D. ROTHSTEIN; M. B. ROBINSON. *Children's Hosp. Of Philadelphia, John Hopkins Univ., Tufts Univ., Univ. of Pennsylvania*.
- 11:00 D6 **332.16** Cell-type specific expression and function of the glutamate transporter GLT-1 at excitatory synapses probed with conditional deletion. Y. SUN*; G. T. PETR; N. M. FREDERICK; C. J. AOKI; A. ROTENBERG; S. C. DHAMNE; M. Q. HAMEED; G. S. GOODRICH; W. ARMSSEN; P. A. ROSENBERG. *Children's Hosp. Boston, Harvard Med. Sch., New York Univ., Children's Hosp. Boston*.
- 8:00 D7 **332.17** Molecular characterisation of UCPH-101, the first selective inhibitor of the Excitatory Amino Acid Transporter subtype-1. B. ABRAHAMSEN; T. H. V. HUYNH; M. N. ERICHSEN; J. F. BASTLUND; C. BUNDGAARD; A. MORK*; L. BUNCH; A. A. JENSEN. *Univ. of Copenhagen, H. Lundbeck A/S*.
- 9:00 D8 **332.18** Two classes of gliomas defined by the expression and function of distinct Cystine/Glutamate Transporters. S. ROBERT*; T. OGUNRINU; S. C. BUCKINGHAM; M. E. BERENS; H. SONTHEIMER. *Univ. of Alabama At Birmingham, Translational Genomics Res. Inst. (TGen)*.
- 10:00 D9 **332.19** ● Impact of ischemic injury on the glutamate receptors in cortical GFAP/EGFP-positive glial cells. D. DZAMBA*; P. HONSA; M. VALNY; V. RUSNAKOVA; M. KUBISTA; A. CHVATAL; M. ANDEROVA. *2nd Fac. of Medicine, Charles Univ., Inst. of Exptl. Medicine, AS CR, Inst. of Biotechnology, AS CR*.
- 11:00 D10 **332.20** Differential rates of glutamate transporter proteolysis may lead to erroneous conclusions about transporter distributions. N. C. DANBOLT*; Y. LI; Y. ZHOU. *Univ. of Oslo*.
- 8:00 D11 **332.21** The quaternary structure of glutamate transporters increases neurotransmitter capture efficiency. W. SUN*; G. P. LEARY; M. P. KAVANAUGH. *Univ. of Montana*.
- 9:00 D12 **332.22** Ceftriaxone enhances glutamate transporters expression and improves cell viability in rat hippocampal slices exposed to intermittent hypoxia. R. JAGADAPILLAI; N. M. MELLEN; L. R. SACHLEBEN, Jr.; E. GOZAL*. *Univ. Louisville, Univ. Louisville, Univ. Louisville, Univ. Louisville*.
- 10:00 D13 **332.23** ▲ Vesicular glutamate transporters type-1 and -2 in lumbar 4 and 5 dorsal root ganglia - Effects of peripheral axotomy or hindpaw inflammation. C. VIEYTES; K. H. LUNDGREN; M. MALET; E. TOMASELLA; G. F. GEBHART; T. HÖKFELT; K. B. SEROOGY; P. R. BRUMOVSKY*. *Univ. Austral, Univ. of Cincinnati, Univ. of Pittsburgh, Karolinska Institutet, CONICET*.
- 11:00 D14 **332.24** Effects of L-aspartate and its interaction with L-glutamate on single neurons in striatal slice preparation from chicken brain. G. GERBER*; D. BALÁZS; A. CSILLAG. *Semmelweis Univ. Budapest*.

POSTER

333. Neurotransmitter Release: Fusion and Docking

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 D15 **333.01** Wnt signalling regulates neurotransmitter release by modulating the calcium sensor synaptotagmin. L. CIANI*; K. BOYLE; D. M. LOPES; D. ANANE; M. SAHORES; A. GIBB; P. C. SALINAS. *Univ. Col. London, Univ. Col. London*.
- 9:00 D16 **333.02** Syntaxin 1B deficiency reduces vesicle priming and enhances synaptic depression at the calyx of Held synapse. J. GUO*; X. WANG; H. TIAN; J. SUN. *Inst. of Biophysics, Chinese Acad. of Sci.*
- 10:00 D17 **333.03** ● The membrane anchor of synaptobrevin influences flux through fusion pores in Ca²⁺-triggered exocytosis from chromaffin cells. C. CHANG; M. B. JACKSON*. *Univ. of Wisconsin Med. Sch., Univ. of Wisconsin Med. Sch.*
- 11:00 D18 **333.04** PH domains that bind PIP2 and PIP3 are equally effective at blocking exocytosis in PC12 cells. J. JACKSON; D. RICHARDS*. *Cincinnati Childrens Hosp Med. Ctr.*
- 8:00 D19 **333.05** Two-photon FRET/FLIM imaging of SNARE-dependent exocytosis. N. TAKAHASHI; M. OHNO; S. WATANABE; W. SAWADA; H. KASAI*. *Grad. Sch. of Medicine, The Univ. of Tokyo*.
- 9:00 D20 **333.06** Korean red ginseng (Panax ginseng) attenuates 3-nitropropionic acid induced Huntington's-like symptoms by inhibiting microglial activation. M. JANG*; M. LEE; Y. SOHN; H. JUNG; I. CHO. *Kyung Hee Uni.*
- 10:00 D21 **333.07** A rosette radial model for the neuroexocytosis nanomachine: Modelling and experimental test. A. MEGIGHIAN*; S. PANTANO; M. RIGONI; O. ROSSETTO; M. SCORZETO; D. ZANINI; M. A. ZORDAN; C. MONTECUCCO. *Univ. Padova, Biomolecular Simulations Group, Univ. of Padova, Univ. of Padova*.
- 11:00 D22 **333.08** Interaction of Gβγ with the SNARE complex in a supported lipid bilayer. B. R. PAGE; A. M. PREININGER; J. LEE; J. GILBERT; H. E. HAMM; S. T. ALFORD*. *Univ. Illinois, Vanderbilt Univ. Med. Ctr., Univ. Illinois*.
- 8:00 D23 **333.09** The linker region of neuronal-Synaptobrevin contributes to synaptic transmission at the *Drosophila* neuromuscular junction. C. DEMILL; X. QIU; A. BOLOTTA; B. A. STEWART*. *Univ. Toronto*.

- 9:00 D24 **333.10** Functionally distinct actions of Rab3 and Rab27 in vesicle cycling. E. L. STUENKEL*; A. SUBRAMANI; V. A. CAZARES. *Univ. of Michigan, Univ. of Michigan.*
- 10:00 D25 **333.11** Regulation of soluble N-ethylmaleimide-sensitive factor attachment protein receptors by oxidative modification. H. TAN; W. G. HONER; H. LI; J. WANG*. *Univ. of Manitoba, BCMHARI, Dept. Psychiatry, Univ. of British Columbia.*
- 11:00 D26 **333.12** Ca²⁺-independent binding of synaptotagmin to syntaxin via its C₂B effector region. T. NISHIKI*; T. MASUMOTO; K. SUZUKI; M. FUJITA; A. FUJIMURA; H. MICHIEUE; I. OHMORI; K. TOMIZAWA; H. MATSUI. *Okayama Univ. Grad. Sch. of Medicine, Dent. and Pharmaceut. Sci., Kumamoto Univ.*
- 8:00 D27 **333.13** Optogenetic stimulation of striatal dopamine release detected in brain slices. E. A. BUDYGIN*; V. P. GRINEVICH; K. D. BONIN; C. E. BASS. *Wake Forest Univ. Sch. of Med., Wake Forest Univ., Univ. at Buffalo, State Univ. of New York.*
- 9:00 D28 **333.14** Kinetic characteristics of neuropeptide Y release from large dense core vesicles of mouse chromaffin cells. S. DUTTA; R. MOHRMANN*; D. BRUNS. *Univ. des Saarlandes.*
- 10:00 D29 **333.15** The effect of Munc18-1 on unitary exocytotic events of peptidergic vesicles. R. ZOREC*; J. JORGACEVSKI; M. POTOKAR; S. GRILC; M. KREFT; W. LIU; J. W. BARCLAY; J. BUCKERS; R. MEDDA; S. W. HELL; V. PARPURA; R. D. BURGOYNE. *Med. Fac, Univ. Ljubljana, Univ. of Ljubljana, Biotechnical faculty, Ctr. for Glial Biol. in Medicine, Civitan Intl. Res. Ctr., Sch. of Biomed. Sciences, Univ. of Liverpool, Abteilung NanoBiophotonik, Max-Planck-Institut für Biophysikalische Chemie.*
- 11:00 D30 **333.16** The implication of Doc2b in vesicle fusion and exocytosis in mouse chromaffin cells. P. S. PINHEIRO*; A. J. GROFFEN; M. VERHAGE; J. B. SØRENSEN. *Univ. of Copenhagen, VU Univ. and VU Med. Ctr.*
- 8:00 D31 **333.17** dATP8B-mediated inward translocation of phosphatidylserine is required for evoked neurotransmitter release at larval neuromuscular junctions of *Drosophila*. M. IMAD*. *Univ. Arizona.*
- 9:00 D32 **333.18** ▲ A dominant suppressor of unc-13 partially rescues paralysis in *Caenorhabditis elegans*. A. MURPHY STOUT; K. AMUQUANDO; R. HOLLENBACH; A. HRASOK; C. RYDER; A. SIDO; R. E. KOHN*. *Ursinus Col.*
- 10:00 D33 **333.19** Requirement of Ca²⁺ binding to the C₂B for dissociation of synaptotagmin from trans-SNARE complexes. T. MASUMOTO*; K. SUZUKI; D. TARESTE; I. OHMORI; H. MICHIEUE; T. GALLI; T. NISHIKI; H. MATSUI. *Okayama Univ. Grad. Sch. of Medicine, Dent. and Pharmaceut. Sci., Jacques Monod Institute, Univ. Paris 7.*
- 11:00 D34 **333.20** Cysteine string protein-α regulates fusion pore dynamics during calcium-dependent exocytosis via changing its phosphorylated state. N. CHIANG*; Y. HSIAO; C. WANG. *Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ.*
- 8:00 D35 **333.21** Synaptic and circuit dysfunctions at the dentate gyrus in CSP-α knock-out mice. J. L. NIETO-GONZALEZ; L. GOMEZ-SANCHEZ; J. A. MARTINEZ-LOPEZ; F. MAVILLARD; R. FERNANDEZ-CHACON*. *Inst. de Biomedicina de Sevilla (IBIS), HUVR/CSIC/Univ. of Seville, Univ. of Seville, CIBERNED.*

POSTER

334. Neurotransmitter Release: Synaptic Vesicle Recycling and Calcium Dependence

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 D36 **334.01** Recycling of the vesicular GABA transporter requires a single, atypical dileucine-like motif. M. S. SANTOS; C. PARK; S. M. FOSS; H. LI; S. M. VOGLMAIER*. *Univ. California San Francisco, Univ. California San Francisco.*
- 9:00 D37 **334.02** The vesicular glutamate transporter VGLUT1 contains multiple endocytic motifs necessary for synaptic targeting. S. M. FOSS*; M. S. SANTOS; R. H. EDWARDS; S. M. VOGLMAIER. *Univ. of California, San Francisco.*
- 10:00 D38 **334.03** Does the anionic lipid phosphatidylserine mark the endo- and exocytotic route of the synaptic vesicle cycle? E. IMLER*; M. IMAD; C. GAY; M. BABIC; K. E. ZINSMAIER. *Univ. of Arizona.*
- 11:00 D39 **334.04** Dynamin 1-dependent endocytosis at the inner hair cell synapse. J. NEEF; C. LENZ; R. M. BOUMIL; W. N. FRANKEL; P. DE CAMILLI; N. STRENZKE*; T. MOSER. *Univ. Goettingen, The Jackson Lab., Yale Univ. Sch. of Med.*
- 8:00 D40 **334.05** Tomosyn orchestrates vesicle pools at hippocampal synapses to tune neurotransmitter release. V. A. CAZARES*; A. SUBRAMANI; W. W. HOERAUF; J. J. SALDATE; E. L. STUENKEL. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*
- 9:00 D41 **334.06** Rapid, activity-independent refilling of GABA/glycine vesicles. P. F. APOSTOLIDES; L. O. TRUSSELL*. *Oregon Hlth. Sci. Univ., Oregon Hlth. Sci. Univ.*
- 10:00 D42 **334.07** Cocaine modulates a vesicle pool for dopamine release in mouse striatum *in vivo*. Z. ZHOU*; P. ZUO; X. KANG; H. XU; B. ZHANG; L. ZHOU; H. DOU; Z. DENG; L. WANG; S. KUO; S. WANG; W. YAO; M. LI; Z. CHAI; X. WU; W. LIU; W. GUO; C. X. ZHANG; H. GU; L. ZHENG. *Inst. Mol. Med, Peking Univ., Dept Pharm, Ohio State Univ.*
- 11:00 D43 **334.08** ● Macroendocytosis by snake motor terminals is enhanced after spontaneous release. R. S. STEWART*; R. S. WILKINSON. *Washington Univ. Schl.*
- 8:00 D44 **334.09** Presynaptic silencing by cannabinoid CB1 receptors. J. SANCHEZ-PRIETO*; J. RAMIREZ-FRANCO; D. BARTOLOME-MARTIN; B. ALONSO; M. TORRES. *Univ. Complutense De Madrid.*
- 9:00 D45 **334.10** Modeling the effect of bk channels on calcium-induced synaptic release and excitability. N. SCHMANDT*; R. FERNANDEZ GALAN. *Case Western Reserve Univ.*
- 10:00 D46 **334.11** Non-Local amplification of Ca²⁺ signals by Ca²⁺ buffer saturation: A computational study. V. V. MATVEEV*. *New Jersey Inst. Tech.*
- 11:00 D47 **334.12** The role of voltage-dependent calcium channels in striatal dopamine release. K. BRIMBLECOMBE*; S. J. CRAGG. *Univ. of Oxford.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 D48 **334.13** Optogenetic measurement of presynaptic calcium transients in dopaminergic neurons using the GCaMP calcium indicator: characterization of normal and pathological physiology. C. SGOBIO; L. WU; H. CAI; D. M. LOVINGER*. *Natl. Inst. of Neurolog. Disorders and Stroke, Natl. Inst. of Aging, Natl. Inst. Alcohol Abuse & Alcohol.*
- 9:00 D49 **334.14** Rapid neurotransmitter release driven by a catalyst for vesicle priming and a clamp on vesicle fusion. A. M. WALTER*; M. VERHAGE; J. B. SØRENSEN. *Copenhagen Univ., Vrije Univ. Amsterdam.*
- 10:00 D50 **334.15** Ca²⁺ dependence of spontaneous vesicle release at the calyx of Held synapses. J. DAI*; P. CHEN; J. SUN. *Inst. of Biophysics, Chinese Acad. of Sci.*
- 11:00 D51 **334.16** Differential contributions of calcium channel $\alpha 2\delta$ subunits to synaptic release in hippocampal neurons. G. J. OBERMAIR*; B. NIMMERVOLL; M. CAMPIGLIO; A. LIEB; B. SCHLICK; J. STRIESSNIG; V. DI BIASE; B. E. FLUCHER. *Med. Univ. Innsbruck, Univ. of Innsbruck.*
- 8:00 D52 **334.17** Calcium channel number determines synaptic strength and short-term plasticity at individual active zones. J. SHENG; L. HE; H. ZHENG; L. XUE; F. LUO; W. SHIN; T. SUN; T. KUNER; D. YUE; L. WU*. *NINDS/NIH, Heidelberg Univ., Johns Hopkins Univ. Sch. of Med.*
- 9:00 D53 **334.18** Modulation of K⁺-evoked dopamine release from PC12 cells by sigma-1 receptor ligands. T. YAMAMOTO*; H. YAMAMOTO. *Yokohama City Univ., Tokyo Metropolitan Inst. of Med. Sci.*
- 10:00 D54 **334.19** Loose coupling between Ca²⁺ channels and release sensors generates "conditional detonator" properties of hippocampal mossy fiber terminals. P. JONAS*; N. P. VYLETA. *IST Austria.*
- 11:00 D55 **334.20** Calcium influx through a single channel drives vesicle fusion at presynaptic terminals of reticulospinal axons in the lamprey spinal cord. S. RAMACHANDRAN*; S. ALFORD. *Univ. Illinois, Chicago.*
- 8:00 D56 **334.21** The number and organization of calcium channels at small excitatory hippocampal synapses. A. SCIMEMI*; J. S. DIAMOND. *NIH/NINDS, NIH.*
- 9:00 D57 **334.22** Synaptic vesicle recycling in neurons from a 140 CAG-repeat knockin Huntington Disease model. A. MORTON*; M. A. COUSIN. *The Univ. of Edinburgh.*
- 10:00 D58 **334.23** Myosin IIB has an essential role in synaptic transmission and is specifically required for synaptic vesicle recycling. I. CHANDRASEKAR; J. E. HUETTNER; R. JALALIZADEH; R. B. WYSOLMERSKI; Z. M. GOECKELER; P. C. BRIDGMAN*. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., West Virginia Univ. Sch. of Med., Washington Univ. Sch. of Med.*
- 11:00 D59 **334.24** Distinct calcium cooperativity of synchronized and desynchronized multivesicular release. S. RUDOLPH*; L. S. OVERSTREET-WADICHE; J. I. WADICHE. *Univ. of Alabama at Birmingham.*

POSTER

335. Synaptic Integration II

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 D60 **335.01** Cell-specific expression and activation of bZIP transcription factors regulate the development and maintenance of synapse baseline. J. HU*; A. LEVINE; Y. CHEN; S. SCHACHER. *Columbia Univ. Col. Physicians & Surgeons, Columbia Univ. Col. Physicians & Surgeons, Columbia Univ. Col. Physicians & Surgeons.*
- 9:00 E1 **335.02** Regulation of cerebellar granule cell excitability by long-term enhancement of Golgi cell firing. C. HULL*; Y. CHU; M. THANAWALA; W. REGEHR. *Harvard Med. Sch.*
- 10:00 E2 **335.03** Cerebellar Golgi cell synchrony affects the timing but not the gain of granule cell firing. D. R. WARD*; R. A. SILVER. *UCL.*
- 11:00 E3 **335.04** Using optogenetics to probe amygdaloid circuitry. H. M. GOOCH*; L. XU; P. SAH. *Queensland Brain Inst.*
- 8:00 E4 **335.05** Dynamic interaction between cortical and thalamic inputs onto reticular thalamic neurons revealed by dual-wavelength optogenetics. J. PAZ*; L. FENNO; O. YIZHAR; K. DEISSEROTH; J. R. HUGUENARD. *Stanford Univ., STANFORD, Weizman Inst. of Sci.*
- 9:00 E5 **335.06** Dendritic integration in thalamocortical neurons. A. C. ERRINGTON*; V. CRUNELLI. *Cardiff Univ.*
- 10:00 E6 **335.07** Compartmentalized synaptic inhibition of spines in a model dendrite. T. M. MORSE*; N. T. CARNEVALE; C. Q. CHIU; G. M. SHEPHERD; M. J. HIGLEY. *Yale Univ. Sch. Med.*
- 11:00 E7 **335.08** Compartmentalized GABAergic inhibition of dendritic calcium signaling in the neocortex. C. Q. CHIU*; G. LUR; M. J. HIGLEY. *Yale Univ. Sch. of Med.*
- 8:00 E8 **335.09** Prefrontal cortical suppression of synaptic responses in the limbic striatum: The role of GABAergic inhibition. G. G. CALHOON*; P. O'DONNELL. *Univ. of MD, Baltimore.*
- 9:00 E9 **335.10** Transcranial magnetic stimulation induces GABA_B-mediated inhibition of layer 5 pyramidal neuron dendrites. S. C. MURPHY; L. M. PALMER; M. MURAYAMA; M. E. LARKUM*. *Humboldt Univ., RIKEN, Univ. of Bern.*
- 10:00 E10 **335.11** GABA and dopamine co-release from olfactory bulb short axon cells triggers an inhibition-excitation switch in external tufted cells. S. LIU*; C. PLACHEZ; A. C. PUCHE; M. T. SHIPLEY. *Univ. Maryland, Baltimore.*
- 11:00 E11 **335.12** Pooling of noradrenaline determines the time course of $\alpha 2$ -receptor transmission in the locus coeruleus. N. A. COURTNEY; C. FORD*. *Case Western Reserve Univ.*
- 8:00 E12 **335.13** Effect of adenosine on synaptic transmission in layer 4 of rat barrel cortex. D. FELDMAYER*; K. VAN AERDE; G. QI. *Res. Ctr. Juelich, RWTH Aachen University, Med. Sch.*
- 9:00 E13 **335.14** The influence of DREADD receptors activation in the CNS of *Drosophila melanogaster*. Z. R. MAJEED*; R. L. COOPER; C. D. NICHOLS. *Univ. of Kentucky, Dept. of Biol., Louisiana State Univ. Hlth. Sci. Ctr.*

POSTER

336. Long-Term Depression II

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 E14 **336.01** Dependence of NMDA/GSK3 β mediated metaplasticity on TRPM2 channels at hippocampal CA3-CA1 synapses. Y. XIE*; J. C. BELROSE; G. LEI; Y. MORI; J. F. MACDONALD; M. F. JACKSON. *Univ. of Western Ontario, Robarts Res. Inst., Kyoto Univ., Univ. of Toronto.*
- 9:00 E15 **336.02** The combination of aging and a peripheral immune challenge enhances hippocampal LTD and promotes proBDNF - p75 interactions. G. P. CORTESE*; T. R. CHAPMAN; R. M. BARRIENTOS; S. F. MAIER; S. L. PATTERSON. *Univ. of Colorado, Boulder.*
- 10:00 E16 **336.03** • Plasticity of metabotropic glutamate receptor dependent long-term depression in the ACC after amputation. S. J. KANG*; M. LIU; T. CHEN; H. KO; G. BAEK; B. LEE; H. LEE; K. LEE; G. L. COLLINGRIDGE; B. KAANG; M. ZHUO. *Seoul Natl. Univ., Univ. of Toronto, Seoul Natl. Univ., Brain Sci. & Engin. Institute, Kyungpook Natl. Univ., Univ. of Bristol.*
- 11:00 E17 **336.04** Disruption of FMRP-p70 S6 Kinase-PP2A complex by early life seizures underlies enhanced mLTD in adult rats. P. B. BERNARD; A. M. CASTANO; T. BENKE*. *Univ. Colorado Denver Sch. of Med.*
- 8:00 E18 **336.05** The effects of hypothyroidism on the calcium binding proteins and morphology of astrocytes and microglia during the onset of type 2 diabetes. J. KIM*; S. NAM; Y. KIM; D. YOO; S. YI; W. KIM; I. HWANG; J. SOENG; Y. YOON. *Seoul Natl. Univ. / Col. of Vet. Med., Soonchunhyang Univ. / Col. of Med. Sci.*
- 9:00 E19 **336.06** DGK α is required for presynaptic release, excitatory transmission, and presynaptic mGluR-LTD. S. JANG*; J. YANG; J. SEO. *Korea Advanced Inst. of Sci. and Technol. (KAIST), Seoul Natl. Univ.*
- 10:00 E20 **336.07** Pi3K γ is essential for nmdar-dependent ltd and hippocampal-dependent cognitive function. S. SIM; H. LEE; J. KIM; J. BAEK; N. YU; J. CHOI; H. KO; Y. LEE; C. KWAK; S. AHN; S. CHOI; H. KIM; K. KIM; P. H. BACKX; C. A. BRADLEY; E. KIM; D. JANG*; K. LEE; S. KIM; M. ZHUO; G. L. COLLINGRIDGE; B. KAANG. *Seoul Natl. Univ., Korea Univ., Univ. of Toronto, Korea Advanced Inst. of Sci. and Technol., Kyungpook Natl. Univ., Kyungpook Natl. Univ., MRC Ctr. for Synaptic Plasticity.*
- 11:00 E21 **336.08** Low frequency stimulation induces an NMDA receptor-independent LTD at CA3-to-CA1 synapses via muscarinic receptors and T-type VDCC *in vivo*. N. HU; M. J. ROWAN*. *Trinity Col.*
- 8:00 E22 **336.09** • Ca²⁺ from VGCCs and NMDA receptors contributes to LTD induced by either synaptic activity or mGluR activation at CA3-CA1 hippocampal synapses during senescence. A. KUMAR*; T. C. FOSTER. *Univ. of Florida, Univ. of Florida.*
- 9:00 E23 **336.10** Diacylglycerol Kinase ζ -dependent regulation of synaptic plasticity in hippocampus. D. OH*; J. SEO; S. CHOI; E. KIM. *Korea Advanced Inst. of Sci. and Technol. (KAIST), Seoul Natl. Univ. Sch. of Dent., Korea Advanced Inst. of Sci. and Technol. (KAIST).*
- 10:00 E24 **336.11** Phosphorylation of threonine-19 of psd-95 by gsk-3 β is required for long-term depression. C. D. NELSON*; M. J. KIM; H. HSIN; Y. CHEN; M. SHENG. *Genentech, MIT.*

- 11:00 E25 **336.12** ▲ Simulating the effects of molecular crowding and fractional diffusion on long-term depression. H. T. DEANS; T. MARINOV; F. SANTAMARIA*. *Univ. Texas San Antonio.*
- 8:00 E26 **336.13** Identification of endocannabinoid biosynthetic enzyme mRNA in hippocampal pyramidal cells and CA1 stratum radiatum interneurons. C. B. MERRILL*; M. MCNEIL; R. C. WILLIAMSON; B. R. POOLE; B. NELSON; S. SUDWEEKS; J. G. EDWARDS. *Brigham Young Univ., Brigham Young Univ., Brigham Young Univ.*
- 9:00 E27 **336.14** Depotentiation is inhibited by ultra-low concentration of orexin A at Schaffer Collateral-CA1 synapses in mouse hippocampal slices. G. LU*; L. CHIOU. *Col. of Medicine, Natl. Taiwan Univ., Col. of Medicine, Natl. Taiwan Univ., Col. of Medicine, Natl. Taiwan Univ.*
- 10:00 E28 **336.15** Inhibition of long-term depression by neuropeptide Y via modulation of distal dendritic Ca²⁺ influx. T. J. HAMILTON*; M. E. LARKUM; W. F. COLMERS. *Grant MacEwan Univ., Univ. of Alberta, Univ. of Bern.*
- 11:00 E29 **336.16** Neuronal-stimulation induces autophagy in hippocampal neurons that is involved in AMPA receptor degradation after chemical LTD. M. H. SHEHATA*; H. MATSUMURA; R. OKUBO-SUZUKI; N. OHKAWA; K. INOKUCHI. *Univ. of Toyama, Japan Sci. and Technol. Agency (JST), CREST.*
- 8:00 E30 **336.17** A stimulus-reduced microRNA modulates MAP1B translation and AMPA receptor endocytosis. Y. CHEN*; C. J. SHEN. *Academia Sinica, Natl. Yang-Ming Univ.*

POSTER

337. Synaptic Plasticity: Structural Plasticity III

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 E31 **337.01** A novel NMDA receptor adaptation mediates aversion-resistant ethanol consumption in rats. T. SEIF*; S. CHANG; S. L. GIBB; J. DADGAR; B. T. CHEN; B. K. HARVEY; D. RON; R. O. MESSING; A. BONCI; F. W. HOPF. *Ernest Gallo Clin. and Res. Center, UCSF, NIDA Intramural Res. Program, Solomon H. Snyder Dept. of Neurosci.*
- 9:00 E32 **337.02** Play and the construction of a resilient brain. B. HIMMLER*; S. PELLIS; B. KOLB. *Univ. of Lethbridge.*
- 10:00 E33 **337.03** Impaired CX3CR1 signaling restricts inflammatory macrophages and promotes serotonergic axon plasticity with preservation of synaptic contacts in the traumatically injured spinal cord. C. FRERIA*; W. LAI; P. WEI; A. L. R. OLIVEIRA; P. G. POPOVICH. *Unicamp, The Ohio State Univ.*
- 11:00 E34 **337.04** Sonic hedgehog induces autophagy in hippocampal neurons. P. YAO; R. S. PETRALIA; C. M. SCHWARTZ; Y. WANG; M. P. MATTSON*. *NIA/NIH, NIDCD/NIH, NIDCD/NIH, Lab. of Neurosciences, NIA Biomedical Res. Ctr.*
- 8:00 E35 **337.05** Sexual experience increases dendritic spine density in nucleus accumbens d1 expressing neurons. N. A. STAFFEND; R. L. MEISEL*. *Univ. Minnesota.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 E36 **337.06** The effects of hypothyroidism on the calcium binding proteins and morphology of astrocytes and microglia during the onset of type 2 diabetes. S. NAM*; J. KIM; Y. KIM; D. YOO; S. YI; W. KIM; I. HWANG; J. SEONG; Y. YOON. *SEOUL NATIONAL UNIVERSITY, Soonchunhyang University, Col. of Med. Sci.*
- 10:00 E37 **337.07** Cranial irradiation alters dendritic spine density and morphology in the hippocampus. A. CHAKRABORTI*; A. ALLEN; B. ALLEN; S. ROSI; J. R. FIKE. *Univ. of California, San Francisco, Univ. of California, San Francisco.*
- 11:00 E38 **337.08** Single-synapse analysis of synaptic remodeling in the post-stroke rodent brain. T. HIU*; T. M. BLISS; Z. FARZAMPOUR; J. T. PAZ; A. OLSON; K. D. MICHEVA; G. WANG; K. TRAN; E. H. WANG; N. MANLEY; Y. NISHIYAMA; A. ARAC; N. O'ROURKE; J. R. HUGUENARD; S. J. SMITH; G. K. STEINBERG. *Dept. of Neurosurg. and Stanford Stroke Center, Stanford Univ., Dept. of Neurosurg. and Stanford Stroke Ctr., Dept. of Neurol. and Neurolog. Sci., Inst. for Neuro-Innovation and Translational Neurosciences, Dept. of Mol. and Cell. Physiol.*
- 8:00 E39 **337.09** Major histocompatibility class I molecules modulate pyramidal cell morphology and spine distribution in the ageing hippocampus. J. SHORT; J. E. KEMMLER; K. BIRON; M. LEIST; W. A. JEFFERIES; D. L. DICKSTEIN*. *Mount Sinai Sch. Med., Univ. of Konstanz, Univ. of British Columbia, Univ. of Konstanz, Univ. of British Columbia.*
- 9:00 E40 **337.10** Structural plasticity of dendritic spines on interneurons in the hippocampus and cortex of AD-transgenic mice. L. SCHMID; K. BERGMANN; M. FUHRMANN*. *German Ctr. for Neurodegenerative Dis. (DZNE), Bonn.*
- 10:00 E41 **337.11** • Plant derived chemicals alleviate the effects of chronic stress on neuronal morphology and synaptic plasticity of hippocampal neurons. E. A. BUTT*; M. C. BELLINGHAM; N. A. LAVIDIS. *Univ. of Queensland.*
- 11:00 E42 **337.12** Aggressive experience activates the Fragile X Mental Retardation Protein (FMRP) signalling pathway in the nucleus accumbens of female hamsters. L. E. BEEN*; B. C. KENNEDY; R. L. MEISEL. *Univ. of Minnesota.*
- 8:00 E43 **337.13** Electrophysiological analysis of integrin signaling pathway related mutants at *Drosophila* neuromuscular junctions. H. KAO*; P. TSAI; C. CHIEN. *Inst. of Mol. Biology, Academia Sinica, Inst. of Mol. Medicine, Natl. Taiwan Univ.*
- 9:00 E44 **337.14** Combination effects of Cu,Zn-superoxide dismutase and peroxiredoxin-2 on cell proliferation and neuroblast differentiation in a model of D-galactose-induced aging mice. D. YOO*; W. KIM; H. JUNG; S. NAM; J. KIM; J. CHOI; Y. YOON; I. HWANG. *Seoul Natl. Univ., Kangwon Natl. Univ.*
- 10:00 E45 **337.15** Increased synaptic dynamics in the aged brain. R. MOSTANY*; J. A. ANSTEY; K. L. CRUMP; B. MACO; G. KNOTT; C. PORTERA-CAILLIAU. *UCLA, Ecole Polytechnique Federale Lausanne, UCLA.*
- 11:00 E46 **337.16** *In vivo* 2-photon imaging reveals increased axonal bouton dynamics in the aged mouse cortex. F. GRILLO*; S. SONG; L. RUIVO; L. HUANG; G. GAO; G. KNOTT; V. FERRETTI; D. THOMPSON; G. LITTLE; V. DE PAOLA. *MRC Clin. Sci. Centre, Fac. of Medicine, Imperial Col., 2) Department of Biomed. Engineering, Med. School, Tsinghua Univ., 3) Centre of Interdisciplinary Electron Microscopy, École Polytechnique Fédérale de Lausanne.*
- 8:00 E47 **337.17** • Involvement of ephrin-A2 in regulating experience-dependent synapse pruning in the mouse cortex. X. YU*; G. WANG; A. GILMORE; S. J. SMITH; Y. ZUO. *UCSC, MCDB, Stanford Univ., UCSC, UCSC.*
- 9:00 E48 **337.18** Structural plasticity of dendritic spines in primary visual cortex during behavioral tasks. M. FUKUDA*; H. OHNO; T. OKADA; S. TAKEDA; H. KASAI. *Univ. Tokyo, Univ. Tokyo, Natl. Inst. of Neuroscience, Natl. Ctr. of Neurol. and Psychiatry.*

POSTER

338. Oscillations and Synchrony: Hippocampus

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 E49 **338.01** Fine tuning of Wnt-signaling pathways in spontaneous network activity in the entorhinal-hippocampal loop. C. A. OLIVA*; N. C. INESTROSA. *Ctr. For Aging and Regeneration CARE, Pontificia Univ. Catolica De Chile.*
- 9:00 E50 **338.02** • Network-correlated oscillations in the range of 0.1-1 Hz determine network bursts and individual burst morphology in hippocampal networks on electrode arrays. S. LEONDOPULOS*; M. D. BOEHLER; B. C. WHEELER; G. J. BREWER. *Univ. of Florida, Southern Illinois Univ.*
- 10:00 E51 **338.03** NEURON model of 16-site extracellular theta oscillations in the CA1 region of the hippocampus: A CSD analysis. S. BALAKRISHNAN*; R. A. PEARCE. *Univ. Wisconsin, Madison.*
- 11:00 E52 **338.04** Muscarinic signaling alters the theta oscillation phase profile in the CA1 region of the mouse hippocampus by modulating the strength of the apical dendritic dipole. R. A. PEARCE*; S. BALAKRISHNAN; M. G. PERKINS. *Univ. of Wisconsin.*
- 8:00 E53 **338.05** Functional connectivity patterns underlying long-term synaptic potentiation in hippocampal networks. B. A. RANDALL*; M. NIEDRINGHAUS; X. CHEN; R. DZAKPASU. *Georgetown Univ., Georgetown Univ., Georgetown Univ.*
- 9:00 E54 **338.06** Physiological evidence for feedback in the hippocampus from the subiculum and CA1 to CA3. J. C. JACKSON*; R. GOUTAGNY; S. BRESSLER; S. WILLIAMS. *McGill, CNRS UMR7237, Florida Atlantic Univ.*
- 10:00 E55 **338.07** Changes in hippocampal gamma oscillations during and after unilateral selective hippocampal ischemia in freely moving mice. A. M. BARTH*; I. MODY. *UCLA Sch. of Med., UCLA Sch. of Med.*
- 11:00 E56 **338.08** Multi-cell Ca imaging of local dendritic activities for analyzing the effects of extracellular AC electric field on pyramidal neurons in rat hippocampal slices. K. MAEDA*; R. MARUYAMA; Y. ODA; H. MORODA; T. AONISHI; M. INOUE; H. MIYAKAWA. *Tokyo Univ. of Pharm. and Life Sci., Tokyo Technol., RIKEN BSI.*
- 8:00 E57 **338.09** Rhythmic and coherent excitation of dentate gyrus granule cells *in vivo* during theta-gamma oscillations. A. J. PERNIA-ANDRADE*; P. JONAS. *Inst. of Sci. and Technol. Austria (IST Austria).*
- 9:00 E58 **338.10** Local CA1 network excitability is enhanced in a mouse model of human genetic epilepsy. R. HATCH*; C. A. REID; S. PETROU. *Florey Neurosci. Institute.*

10:00 E59 **338.11** Hippocampal slow oscillations during sleep in human intracranial recording. K. E. MATHEWSON*; R. J. STABA; C. T. DICKSON. *Beckman Institute, Univ. of Illinois, Univ. of Alberta, Univ. of California - Los Angeles, Univ. of Alberta.*

POSTER

339. Oscillations and Synchrony: Gabaergic Interneurons

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 E60 **339.01** Optogenetic investigation of septal GABAergic modulation of hippocampal theta rhythm. R. BOYCE; S. D. GLASGOW; A. R. ADAMANTIDIS*, Dr; S. WILLIAMS. *McGill University, Douglas Mental Hlth. Univ. Inst., McGill Univ.*
- 9:00 E61 **339.02** Intrinsic theta oscillators of the hippocampus are differentially controlled by parvalbumin and somatostatin interneurons. B. AMILHON*; C. HUH; F. MANSEAU; J. JACKSON; G. DUCHARME; R. GOUTAGNY; A. ADAMANTIDIS; S. WILLIAMS. *McGill University, Douglas Hosp. Res. Ctr.*
- 10:00 E62 **339.03** Experimentally constrained network models of hippocampal fast-firing parvalbumin-positive interneurons. K. A. FERGUSON*; C. Y. L. HUH; B. AMILHON; R. MURUGESU; S. WILLIAMS; F. K. SKINNER. *Univ. of Toronto, Toronto Western Res. Institute, Univ. Hlth. Network, Douglas Mental Hlth. Univ. Institute, McGill Univ., Univ. of Toronto, Univ. of Toronto.*
- 11:00 E63 **339.04** ▲ Functional connectivity of the entorhinal cortex layer 1 neurons as revealed by recurrent network activity. L. SAUSSY; R. SHARMA; A. J. FOUST*; B. TAHVILDARI; D. A. MCCORMICK. *Yale Univ. Sch. of Med.*
- 8:00 E64 **339.05** Functional Connectivity between Diverse GABAergic Subtypes of Interneurons in layers 2 and 3 of the Cortex. B. TAHVILDARI*; D. MCCORMICK. *Yale Univ.*
- 9:00 E65 **339.06** Characterization of the function of GABAergic hub neurons in maturing networks. V. H. SOUSA*; V. VILLETTE; A. MALVACHE; A. BAUDE; P. GUIGUE; R. COSSART. *INMED INSERM U901.*
- 10:00 E66 **339.07** Combined two photon imaging and electrophysiology of hippocampal neuronal synchronization evoked by optogenetic stimulation of medial septal PV+ interneurons. F. FUHRMANN; H. KANEKO; S. SCHOCH; M. FUHRMANN; S. REMY*. *Univ. of Bonn, Deutsches Zentrum für Neurodegenerative Erkrankungen, Univ. of Bonn, DZNE / Univ. of Bonn.*
- 11:00 E67 **339.08** A major role for inhibitory chemical synapses in promoting firing synchrony between fast-spiking cortical interneurons. H. HU; A. AGMON*. *West Virginia Univ. Hlth. Sci. Ctr.*
- 8:00 E68 **339.09** Stimulating the basal forebrain parvalbumin-positive neurons entrains cortical gamma oscillations. T. KIM*; J. T. MCKENNA; J. M. MCNALLY; S. WINSTON; C. YANG; L. CHEN; J. CHOI; B. KOCIS; K. DEISSEROTH; R. E. STRECKER; R. BASHEER; R. E. BROWN; R. W. MCCARLEY. *Boston VA Healthcare System-Harvard Med. Sch., Korea Inst. of Sci. and Technol., Beth-Israel Deaconess Med. Center-Harvard Med. Sch., Stanford Univ.*

9:00 F1 **339.10** External plexiform layer interneurons integrate synaptic inputs that are correlated with the bursting activity of surrounding mitral/tufted cells. A. M. HAYAR*; K. HAMILTON. *Univ. Arkansas for Med. Sci., Louisiana State Univ.*

POSTER

340. Intrinsic Membrane Properties: Dendritic and Synaptic Integration I

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 F2 **340.01** Estimation of electrical properties of dendrites with branches using a continuum modeling formulation. S. D. BERGER; S. M. BAER; S. M. CROOK*. *Arizona State Univ., Arizona State Univ., Arizona State Univ.*
- 9:00 F3 **340.02** Dendritic nonlinearities allow neurons to encode different patterns of synaptic input. M. TO*; G. STUART. *The John Curtin Sch. of Med. Res., Flinders Univ.*
- 10:00 F4 **340.03** Subcellular compartments of cortical interneurons are endowed with unique potassium channel subtypes and distributions. A. E. CASALE*; A. J. FOUST; D. A. MCCORMICK. *Yale Univ., Yale Univ., Yale Univ.*
- 11:00 F5 **340.04** Shunting potassium conductances in the dendrites of medial intercalated cells of the amygdala. C. E. STROBEL*; P. SAH. *The Queensland Brain Inst.*
- 8:00 F6 **340.05** The A-type potassium current regulates ER calcium release through inositol triphosphate receptors in a hippocampal pyramidal cell model. S. ASHHAD*; R. NARAYANAN. *Indian Inst. of Sci.*
- 9:00 F7 **340.06** Activity-dependent compartmentalized dendritic plasticity in cerebellar Purkinje cells. C. PIOCHON*; G. OHTSUKI; J. P. ADELMAN; C. HANSEL. *Univ. of Chicago, Univ. of Chicago, Oregon Hlth. & Sci. Univ.*
- 10:00 F8 **340.07** Role of active conductances for dendritic processing in a looming sensitive neuron. R. B. DEWELL*; F. GABBIANI. *Baylor Col. of Med., Baylor Col. of Med., Rice Univ.*
- 11:00 F9 **340.08** A broadly tuned saturating dendritic branch is sufficient to expand single neuron computation capacity. C. D. ROMAIN*; R. D. CAZE; M. D. HUMPHRIES; B. S. GUTKIN. *ENS, Paris 7 Diderot, INSERM U960, Univ. of Sheffield.*
- 8:00 F10 **340.09** Distributed dendritic activity during firing of layer 5 cortical neurons *in vivo*. D. HILL*; Z. VARGA; H. JIA; A. KONNERTH. *Tech. Univ. of Munich, Tech. Univ. of Munich.*
- 9:00 F11 **340.10** H-channels in dendrites influence somatic membrane potential oscillations. E. ZHUCHKOVA*; S. SCHREIBER. *Humboldt Univ. of Berlin, Inst. For Theoretical Biol., Bernstein Ctr. for Computat. Neurosci.*
- 10:00 F12 **340.11** Purkinje cell intrinsic plasticity is selectively impaired in SK2 channel knock-out mice. G. GRASSELLI*; Q. HE; J. P. ADELMAN; C. HANSEL. *Univ. of Chicago, Univ. of Chicago, Oregon Hlth. & Sci. Univ.*
- 11:00 F13 **340.12** A computational study of molecular mechanisms underlying variability of dendritic calcium spikes. H. ANWAR; I. HEPBURN; E. DE SCHUTTER*. *Okinawa Inst. of Sci. and Technol., Univ. Antwerp.*

Mon. AM

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 F14 **340.13** Subcellular connectivity underlies pathway-specific signaling in the nucleus accumbens. A. MACASKILL*; J. LITTLE; J. CASSEL; A. CARTER. *New York Univ.*
- 9:00 F15 **340.14** Inhibitory control of linear and supralinear dendritic excitation in CA1 pyramidal neurons. C. MUELLER*; H. BECK; D. COULTER; S. REMY. *NRW Res. Group Dendritic integration in the CNS, Exptl. Epileptology & Cognition Res., Deutsches Zentrum für Neurodegenerative Erkrankungen e.V. (DZNE), Childrens Hosp. of Philadelphia.*
- 10:00 F16 **340.15** A slowly backpropagating dendritic current activated by antidromic stimulation in population recordings of rat dentate gyrus granule cells. D. B. JAFFE*; M. WILLIAMSON; D. N. AGUIRRE. *Neurosci. Institute, Univ. of Texas At San Antonio.*
- 11:00 F17 **340.16** Biophysical model of HCN channels and their role in collision avoidance. S. J. COX*; K. HEDRICK; R. DEWELL; F. GABBIANI. *Rice Univ., Baylor Col. of Med.*
- 8:00 F18 **340.17** Fixed buffer capacity varies between principle cells and interneurons and determines the duration of local dendritic calcium elevations. E. A. MATTHEWS*; D. DIETRICH. *Univ. Clin. Bonn.*
- 9:00 F19 **340.18** A-type potassium channels as a mechanism for predictive homeostasis of membrane excitability. J. K. KIM; C. D. FIORILLO*. *KAIST.*
- 10:00 F20 **340.19** Subcellular synaptic connectivity in the prefrontal cortex. J. P. LITTLE*; A. G. CARTER. *New York Univ., New York Univ.*
- 11:00 F21 **340.20** • Regional dendritic responses to localized synaptic inputs in CA1 neurons - A voltage imaging study. X. GAO; M. POPOVIC; D. ZECEVIC*. *Yale Univ. Sch. Med., Yale Univ. Sch. Med.*
- 9:00 F27 **341.06** Expression of inflammation-related genes in mouse BV-2 microglial cells by lipopolysaccharide. J. PARK*; H. LEE; M. DOH; S. KIM; K. JUNG; M. CHOI; Y. CHAI. *Hanyang Univ.*
- 10:00 F28 **341.07** The impact of caffeine on the morphology and density of microglia within the mouse. R. STEGER*; A. ISLAM; S. LUTCHMAN; L. INTRABARTOLO; J. C. BRUMBERG. *Queens Col., Grad. Ctr., Queens Col., Queens College, CUNY, Queens College, CUNY, The Grad. Center, CUNY.*
- 11:00 F29 **341.08** Activated microglia release the neurotrophic factor prosaposin. M. M. GIDDENS*; R. C. MEYER; R. A. HALL. *Emory Univ., Emory Univ.*
- 8:00 F30 **341.09** Interferon regulatory factor 8 is a critical transcription factor for the physiological phenotype of microglia. M. HORIUCHI*; K. WAKAYAMA; A. ITOH; K. KAWAI; D. PLEASURE; K. OZATO; T. ITOH. *Univ. of California, Davis, Inst. of Pediatric Regenerative Medicine, Shriners Hosp. for Children, Northern California, The Univ. of Tokyo, Univ. of California, Davis, Nagoya Univ., Natl. Inst. of Child Hlth. and Human Develop.*
- 9:00 F31 **341.10** Daxx mediates activation-induced cell death in microglia by triggering MST1 signalling. J. LEE*; H. YUN; J. YOON; K. NOH; K. YOON; S. OH; H. OH; J. CHAE; S. HWANG; E. KIM; G. G. MAUL; D. LIM; E. CHOI. *Korea Univ., Korea Advanced Inst. of Sci. and Technol., Chungnam Natl. Univ., The Wistar Inst., Korea Univ.*
- 10:00 F32 **341.11** Crosstalk between the ASK1 and GAPDH-Siah1 stress cascade: A novel role for ASK1-mediated phosphorylation of Siah1 and microglial activation. C. A. TRISTAN*; N. SHAHANI; A. SAWA. *Johns Hopkins Univ. SOM.*
- 11:00 F33 **341.12** Transformation of microglia into phagocytes in the transected and cycloheximide-administered facial nucleus. K. NAKAJIMA*; Y. MORI; S. KOHSAKA. *Soka Univ., Natl. Inst. of Neurosci.*
- 8:00 F34 **341.13** Secretion of growth factors from spinal cord microglia are enhanced by p38 MAP kinase. M. HAMANOUE*; K. MORIOKA; T. OGATA; K. NAKAJIMA; K. TAKAMATSU. *Toho University Sch. of Med., Advanced Med. Res. Center, Toho Univ. Grad. Sch. of Med., Brain and Spinal Injury Ctr. (BASIC), Univ. of California, Res. Institute, Natl. Rehabil. Ctr., Soka Univ.*
- 9:00 F35 **341.14** Signaling mechanism by which microglia proliferate by M-CSF upregulated in the transected rat facial nucleus. S. YAMAMOTO*; S. KOHSAKA; K. NAKAJIMA. *Dept. of Bioinformatics, Fac. of Engineering, Soka Univ., Dept. of Neurochemistry, Natl. Inst. of Neurosci.*
- 10:00 F36 **341.15** Reactive oxygen species (ROS) plays a role in the neuropathic pain induced by HIV coat protein-gp120. W. ZHENG*; W. HUANG; S. LIU; R. C. LEVITT; K. A. CANDIOTT; S. HAO. *Univ. of Miami.*
- 11:00 F37 **341.16** A microfluidic co-culture platform to study HIV-1 Tat induced pathologic microglial phagocytosis. D. F. MARKER*; J. M. TABOR-GODWIN; J. BARBIERI; C. J. LOWETH; V. S. GOODFELLOW; S. LU; H. A. GELBARD. *Univ. of Rochester, Califia Bio, Inc.*
- 8:00 F38 **341.17** Toll-like receptor 2 mediates peripheral nerve injury-induced nadph oxidase 2 expression in spinal cord microglia. H. LIM; S. LEE*. *Seoul Natl. Univ.*
- 9:00 F39 **341.18** NPD1 promotes microglia ramification and redistribution in experimental CNV. K. G. SHEETS; W. C. GORDON*; N. G. BAZAN. *LSU Hlth. Sci. Ctr. New Orleans.*

POSTER

341. Glia-Neuron Interactions: Microglia

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 F22 **341.01** • Neuroprotective mechanisms of anti-oxidant dieckol against microglial activation and neuronal mitochondrial dysfunction. Y. CUI*; S. EUN; S. JUNG; Y. YANG; M. KANG; J. WU. *Jeju Natl. Univ.*
- 9:00 F23 **341.02** Primitive microglia in embryonic forebrain development. P. SQUARZONI*; L. PONT-LEZICA; G. HOEFFEL; G. OLLER; P. ROSTAING; A. BESSIS; F. GINHOUX; S. GAREL. *Ecole Normale Supérieure - IBENS, INSERM 1024, CNRS 8197, Singapore Immunol. Network (SigN), Agency for Sci. Technol. and Res. (A*STAR).*
- 10:00 F24 **341.03** Regulation of phagocytosis by activated microglia. B. YEHAIA*; S. MOHAN; S. DORE. *CTRND, Univ. of Florida Col. of Med., CTRND, Univ. of Florida Col. of Med.*
- 11:00 F25 **341.04** Selective EP2 antagonists improve mouse cognition and increase 5-HT in hippocampus. Q. CHENG*; M. CUEVA; O. MURPHY; J. DANAIO; B. FOX; S. OLSON; S. WANG. *Amgen, Inc.*
- 8:00 F26 **341.05** NMDA triggers rapid microglial process outgrowth; evidence for neuron-glia communication. L. DISSING-OLESEN*; B. MACVICAR. *Brain Res. Centre, Univ. of British Columbia.*

10:00 F40 **341.19** Robust alteration of TGF β signaling in LPS-treated cultured primary microglia. K. MITCHELL*; J. SHAH; A. CAMPBELL; L. TSYTSIKOVA; K. AFFRAM; A. J. SYMES. *USUHS*.

POSTER

342. Glia-Neuron Interactions: Oligodendrocytes

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 F41 **342.01** Oligodendroglial NMDA receptor signalling in coupling axonal and glial energy metabolism. A. S. SAAB*; S. BALTAN; S. MÖBIUS; I. TZVETAVONA; J. HIRRLINGER; B. GOETZE; H. M. JAHN; W. HUANG; A. PÉREZ-SAMARTÍN; F. PÉREZ-CERDÁ; C. MATUTE; S. LÖWEL; K. NAVE; F. KIRCHHOFF. *MPI of Exp. Med., Univ. of Saarland, Lerner Res. Institute, Cleveland Clin., Univ. of Göttingen, Univ. del País Vasco*.
- 9:00 F42 **342.02** ● Demyelinated axons regulate their own remyelination by using glutamate signalling to oligodendrocyte precursor cells. H. GAUTIER*; K. EVANS; I. LUNDGAARD; J. H. STOCKLEY; C. LAO-PEREGRÍN; R. J. M. FRANKLIN; R. T. KARADOTTIR. *Univ. of Cambridge, Univ. of Castilla-La Mancha; Inst. for Res. in Neurolog. Disabilities*.
- 10:00 F43 **342.03** p38 MAPK activation promotes oligodendrocyte demyelination and down-regulates myelin gene expression. P. GOKINA; H. A. KIM*. *Rutgers Univ.*
- 11:00 F44 **342.04** Loss of Smad1 delays peripheral nerve regeneration by impairing the dedifferentiation of Schwann cells. K. J. MURPHY*; H. ZOU. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*
- 8:00 F45 **342.05** Myelin gene regulatory factor knockout delays functional recovery from spinal cord injury. G. J. DUNCAN*; J. R. PLEMEL; B. J. HILTON; J. LIU; M. BERSON; M. J. MCKEEN; J. KRAMER; W. TETZLAFF. *ICORD-UBC*.
- 9:00 F46 **342.06** Gamma-secretase signaling in oligodendrocyte myelination. A. SCHOLZE*; S. B. MULINYAWE; J. E. ELIAS; B. A. BARRES. *Stanford Univ., Stanford Univ., Stanford Univ.*
- 10:00 G1 **342.07** The role of RhoBTBs in myelination. A. F. DOMINGUES*; N. DIAS; A. ABREU; J. P. DE FARIA; F. RIVERO; J. RELVAS. *Inst. for Mol. and Cell Biol., Ctr. for Biomed. Research, Univ. of Hull*.
- 11:00 G2 **342.08** Downregulation of monocarboxylate transporter 1 (MCT1) selectively within oligodendrocytes produces axon degeneration *in vivo*. B. M. MORRISON; Y. LEE; P. N. HOFFMAN; S. O. VIDENSKY*; A. TSINGALIA; J. D. ROTHSTEIN. *Johns Hopkins Univ.*
- 8:00 G3 **342.09** Plasma corticosterone activates sgk1 and induces morphological changes in oligodendrocytes in corpus callosum. S. MIYATA*; M. TOHYAMA. *Div. Mol Brain Res, Res. Ins Traditional Asian Med, Kinki Univ.*
- 9:00 G4 **342.10** proNGF and p75NTR expression is correlated with apoptosis in corpus callosum oligodendrocytes after traumatic brain injury. S. LEE*; A. LIN; E. SALEGIO; J. SACRAMENTO; L. MANNET; M. CASTEL; B. CANOLLE; J. BRESNAHAN; M. BEATTIE. *Univ. of California San Francisco, Sanofi R&D*.

- 10:00 G5 **342.11** Regulation of oligodendrocyte lipid composition by mTOR. H. M. GUARDIOLA-DIAZ*; R. SCHNEIDER; C. REISS; C. MCGUIRE. *Trinity Coll, Pfizer Global R&D, Trinity Coll*.
- 11:00 G6 **342.12** QKI-5 regulates CG4 oligodendroglial cell differentiation and modulates the availability of PLP and Sirt2 mRNA for translation. J. K. GAN; S. JI; J. DOUCETTE*; L. SOBCHISHIN; A. J. NAZARALI. *Univ. of Saskatchewan, Univ. Saskatchewan*.
- 8:00 G7 **342.13** Group I mGluR modulation of AMPA/kainate receptor-mediated Ca^{2+} flux in oligodendrocyte precursor cells. A. SPITTLE*; E. MOLNÁR; J. T. BROWN. *Univ. of Bristol*.
- 9:00 G8 **342.14** Investigating UNC5 homologue function using a transgenic mouse model. D. HAN*; J. BIN; K. E. HORN; M. MICHELL-ROBINSON; P. S. LO; A. F. SADIKOT; A. S. DHAUNCHAK; T. E. KENNEDY. *Montreal Neurolog. Inst., McGill Univ.*
- 10:00 G9 **342.15** Sonic hedgehog signaling and post-stroke recovery. A. BERRETTA; E. GOWING; C. JASONI; A. N. CLARKSON*. *University of Otago*.

POSTER

343. APP/Abeta: Animal Models I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 G10 **343.01** ● Comparison of two different methods for measurement of Abeta-peptides in CSF after BACE-1 inhibition in a dog model. H. K. BORGHYS; D. DHUYVETTER; L. DILLEN; B. VAN BROECK; K. DE WAEPENAERT*. *Janssen Res. and Development, A Div. of Janssen Pharmaceutica NV, Janssen Res. and Development, A Div. of Janssen Pharmaceutica NV*.
- 9:00 G11 **343.02** The effect of low doses of proton particle radiation on behavior in a mouse model of Alzheimer's disease. J. A. BELLONE*; R. VLKOLINSKY; R. E. HARTMAN. *Loma Linda Univ.*
- 10:00 G12 **343.03** Tau-tubulin kinase 1 induces phosphorylation of CRMP-2 and axonal degeneration in hippocampus and entorhinal cortex of Alzheimer's disease models. H. ASAI*; S. IKEZU; K. INGRAHAM; T. WATANABE; K. KAIBUCHI; T. IKEZU. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med., Grad. Sch. of Medicine, Nagoya Univ.*
- 11:00 G13 **343.04** Modeling mitochondrial dysfunction in Alzheimer's disease. L. KUKREJA*; R. J. VASSAR. *Northwestern Univ. Feinberg Sch. of Med., Northwestern Univ. Feinberg Sch. of Med.*
- 8:00 G14 **343.05** Crude caffeine reduces memory impairment and amyloid β_{1-42} levels in an Alzheimer's mouse model. W. CHANG*; Y. CHU; R. M. BLACK; J. LIU; P. SOMPOL; H. WEI; Q. ZHAO; I. H. CHENG. *Inst. of Brain Science, Natl. Yang-Ming Univ., Kraft Foods Global Brands LLC, Children's Hosp. Boston, Harvard Med. Sch., Sanders-Brown Ctr. on Aging, Univ. of Kentucky, Brunswick Labs., Inst. of Brain Sci., Brain Res. Center, Natl. Yang-Ming Univ.*
- 9:00 G15 **343.06** Old APP-ob/ob mice showed highly increased levels of tau phosphorylation in the brain. N. SATO*; M. MORI-UEDA; T. TANAKA; S. TAKEDA; K. UCHIO-YAMADA; H. UEDA; M. SHINOHARA; S. MURAYAMA; M. TAKEDA; H. RAKUGI; R. MORISHITA. *Osaka Univ. Grad Sch. Med., Natl. Inst. of Biomed. Innovation, Tokyo Metropolitan Inst. of Gerontology*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 G16 **343.07** Intracerebral treatment with chondroitinase decreases amyloid burden in APP^{swE}/PS1dE9 mice. P. E. GOTTSCHALL*. *Univ. Arkansas Med. Sci.*
- 11:00 G17 **343.08** • Evaluation and comparison of BACE-1-inhibitors in a canine PK/PD model. D. DHUYVETTER; H. BORGHYS; B. VAN BROECK; L. DILLEN; H. GIJSEN; T. JACOBS; T. STECKLER*. *Janssen Pharmaceutica N.V. Res. & Develop., Janssen Pharmaceutica N.V. Res. & Develop., Janssen Pharmaceutica N.V. Res. & Develop., Johnson & Johnson PRD.*
- 8:00 G18 **343.09** Behavioral and biochemical characterization of Alzheimer's disease mouse with APP^{swE}DI mutations and NOS2 gene knock-out (CVN mouse). N. E. VARTIAINEN*; T. HEIKKINEN; A. RAHKONEN; A. OKSMAN; J. OKSMAN; T. STENIUS; T. AHTONIEMI; J. PUOLIVÄLI; J. YRJÄNHEIKKI. *Charles River Discovery Res. Services.*
- 9:00 G19 **343.10** Influence of cholesterol accumulation in a mouse model of Alzheimer's disease. M. MAULIK*; B. GHOSHAL; J. KIM; Y. WANG; J. YANG; D. WESTAWAY; S. KAR. *Univ. of Alberta.*
- 10:00 G20 **343.11** A role for nebula/DSCR1 in ameliorating axonal transport defects associated with Alzheimer's disease. J. L. SHAW; K. T. CHANG*. *USC, USC.*
- 11:00 G21 **343.12** Corticothalamic dysfunction and cognitive deficits in a mouse model of Alzheimer's disease. B. CORBETT*; X. ZHANG; L. ZHAO; J. CHIN. *Thomas Jefferson Univ.*
- 8:00 G22 **343.13** Intracellular accumulation of toxic turn amyloid- β associated with endoplasmic reticulum stress in Alzheimer's disease. Y. OHYAGI*; N. SOEJIMA; K. M. IINUMA; N. NAKAMURA; J. KIRA. *Dept of Neurology, Kyushu Univ.*
- 9:00 G23 **343.14** An age-related axon terminal pathology around the first olfactory relay that involves amyloidogenic protein overexpression without plaque formation. J. LI; Y. CAI; H. CAI; X. YAN*. *Changsha Med. Univ., Central South Univ. Xiangya Sch. of Med., Natl. Inst. on Aging, Central South Univ.*
- 10:00 G24 **343.15** • Multiplex immunoassay for simultaneous evaluation of A β 1-37/38/40/42 levels after treatment with secretase inhibitors and modulators in non-transgenic animal models. B. VAN BROECK; M. BORGERS; G. MEULDERS; B. HERMANS; D. DHUYVETTER; H. BORGHYS; M. H. MERCKEN*. *Janssen Res. & Develop.*
- 11:00 G25 **343.16** Exercise is more effective than diet control in preventing high fat diet-induced β -amyloid deposition and memory deficit in amyloid precursor protein transgenic mice. M. MAESAKO*; K. SASAKI; N. HAYASHIDA; M. KUBOTA; K. UEMURA; A. KINOSHITA. *Kyoto Univ., Kyoto university.*
- 8:00 G26 **343.17** Nuclear hormone receptors as a therapeutic target for Alzheimer's disease. S. V. IYER*; A. CRISP; J. PIERCE-SHIMOMURA. *Univ. of Texas at Austin, Univ. of Texas at Austin.*
- 9:00 G27 **343.18** • Amyloid plaques but not classic neurofibrillary tangle pathology in the aged gorilla cortex. E. J. MUFSON*; S. E. PEREZ; N. MOHAMMAD; L. KRAMER; E. ABRAHAMSON; M. D. IKONOMOVIC; J. M. ERWIN; C. C. SHERWOOD; P. R. HOF; M. RAGHANTI. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr., Dallas Zoo, Univ. of Pittsburgh, George Washington Univ., George Washington Univ., Mount Sinai Sch. Med., Kent State Univ.*
- 10:00 G28 **343.19** LPS/ischemia/hypoxia induces diffuse myelin/axonal injury and focal MBP/A β aggregates in rat brains. X. ZHAN*; B. P. ANDER; C. COX; F. R. SHARP. *MIND Inst/UC Davis.*
- 11:00 G29 **343.20** Induction and prevention of patterned neurodegeneration by Amyloid Precursor Protein. A. CRISP*; J. PIERCE-SHIMOMURA. *Univ. of Texas At Austin.*
- 8:00 G30 **343.21** Loss of tPA accelerates the pathogenesis of Alzheimer's disease in Tg2576 mice. C. J. BYUN; S. B. OH; J. KOH; J. LEE*. *Asan Inst. For Life Sci.*
- 9:00 G31 **343.22** Altered gene profiles in transgenic mice overexpressing APP in the absence of functional Npc1 protein. S. KAR*; M. MAULIK. *Univ. Alberta, Univ. Alberta.*
- 10:00 G32 **343.23** Degeneration of cholinergic afferent in a transgenic mouse model of Alzheimer's disease: Lack of correlation with proximity to amyloid plaques. M. K. LEE*; Y. XU; G. CHEN. *Univ. of Minnesota, Nanjing Univ. of Chinese Med.*
- 11:00 G33 **343.24** Amyloid Beta's effect on long term memory: A top-down approach in *Lymnaea stagnalis*. L. FORD*; J. R. THORPE; L. C. SERPELL; G. KEMENES. *Univ. of Sussex, Univ. of Sussex.*
- 8:00 G34 **343.25** Novel type and more relevant model mouse for Alzheimer's disease. T. SAITO*; T. SAIDO. *Brain Sci. Inst, RIKEN.*
- 9:00 G35 **343.26** WITHDRAWN.

POSTER

344. Alzheimer's Disease: Beta and Gamma Secretase, BACE and Presenilin I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 G36 **344.01** Simulating self-regulating changes in the mechanical properties of lipid membrane due to cPLA₂: Visualizing molecular dynamics simulations in the context of Alzheimer's disease. M. BERTRAND*; N. VALENZUELA; G. W. SLATER; S. A. L. BENNETT; S. FAI. *Carleton Univ., CIHR Training Program in Neurodegenerative Lipidomics, Univ. of Ottawa, Univ. of Ottawa.*
- 9:00 G37 **344.02** Presenilin-1 controls p62-mediated degradation of tau through transcriptionally modulating the expression of p62. Y. TUNG*; B. WANG; W. HUANG; Y. LIAO. *ICOB 239, Academia Sinica, Natl. Taiwan Univ.*
- 10:00 G38 **344.03** Comparison of BACE inhibitor effects on processing of APP versus Tmem27, a novel BACE2 substrate. R. W. TERRY*; C. SONDEY; L. STAHL; L. HYDE; E. PARKER; M. E. KENNEDY. *Merck Res. Labs., Merck Res. Labs.*
- 11:00 G39 **344.04** Mechanism of intramembrane cleavage of neural Alcadin proteins by γ -secretase. Y. PIAO*; S. HATA; T. SUZUKI. *Lab. of Neuroscience, Grad. Sch. of Pharmaceut. Sci.*
- 8:00 G40 **344.05** Introducing phospho-Lipid Predicted Identities (LiPIId), a novel glycerophospholipid identification tool for use with mass spectroscopy. G. S. MCDOWELL*; A. P. BLANCHARD; H. XU; N. VALENZUELA; S. GELBARD; F. ELISMA; S. FAI; D. FIGEYS; S. A. L. BENNETT. *Univ. of Ottawa, CIHR Training Program in Neurodegenerative Lipidomics, Univ. of Ottawa, Carleton Univ.*

- 9:00 G41 **344.06** Synaptic localization of BACE1 in hippocampal neurons. C. G. FERNANDEZ*; V. BUGGIA-PREVOT; K. VETRIVEL; M. LEFKOW; X. MECKLER; J. ROSEMAN; G. THINAKARAN. *Univ. of Chicago*.
- 10:00 G42 **344.07** A longitudinal study of the effects of maternal genotype on cognitive functions in 3xtg-ad mice. K. STOVER*; M. E. HICKS; D. E. IKPI; R. E. BROWN. *Dalhousie Univ., Dalhousie Univ.*
- 11:00 G43 **344.08** Role of ApolipoproteinE on Alcadeins metabolism. A. KIMURA*; S. HATA; T. SUZUKI. *Lab. of Neuroscience, Grad. Sch. of Pharmaceut. Sciences, Hokkaido*.
- 8:00 G44 **344.09** ● Anti-oxidant supplementation prevents aging associated changes in brain amyloid beta peptide metabolism and learning deficits in rats. M. SINHA*; P. BHOWMICK; G. CHATTERJEE; A. BANERJEE; S. CHAKRABARTI. *Inst. of Post Grad. Med. Educ. and Res.*
- 9:00 G45 **344.10** The cyclic second messenger glycerophospholipidome: The daily grind. H. XU; L. SWAYNE; K. MORIN; S. GELBARD; S. FAI*; D. FIGEYS; S. A. L. BENNETT. *Univ. of Ottawa, CIHR Training Program in Neurodegenerative Lipidomics, Univ. of Victoria, Univ. of Ottawa, Carleton Univ.*
- 10:00 G46 **344.11** Deletion of LRP1 in neuron exacerbates amyloid-beta; deposition in amyloid model mice. T. KANEKIYO*; M. SHINOHARA; C. LIU; G. BU. *Mayo Clin.*
- 11:00 H1 **344.12** Resistance to learning and memory impairment in the TgCRND8 mouse model of Alzheimer's disease segregates with an insulin tolerant/glucose tolerant phenotype. M. GRANGER*; H. XU; C. MESSIER; S. A. L. BENNETT. *Univ. of Ottawa, CIHR Training Program in Neurodegenerative Lipidomics, Univ. of Ottawa, Univ. of Ottawa*.
- 8:00 H2 **344.13** Autoreactive-A β antibodies promote APP β -secretase processing. J. DENG*; H. HOU; B. GIUNTA; T. MORI; Y. WANG; F. FERNANDEZ; S. WEGGEN; W. ARAKI; D. OBREGON; J. TAN. *Rashid Lab. For Developmental Neurobiology, Col. of Medicine, Univ. of So, Daping Hospital, Third Military Med. Univ., James A. Haley Veterans' Admin. Hosp., Saitama Med. Ctr. and Saitama Med. Univ., Neuroimmunology Laboratory, Col. of Med., Heinrich-Heine-University, Natl. Inst. of Neuroscience, Natl. Ctr. of Neurol. and Psychiatry*.
- 9:00 H3 **344.14** Effects of *Rhodiola rosea* L. on behavioural measures of learning and memory and anxiety in the TgCRND8 mouse model of Alzheimer's disease. F. AHMED*; C. CIENIAK; H. XU; A. SALEEM; A. CUERRIER; D. FIGEYS; J. ARNASON; S. BENNETT. *Univ. of Ottawa, Univ. of Ottawa, CIHR Training Program in Neurodegenerative Lipidomics, Univ. of Ottawa, Jardin botanique de Montréal*.
- 10:00 H4 **344.15** Investigating the role of platelet activating factor receptor in a mouse model of AD: Behavioural assessment of learning and memory. M. W. TAYLOR*; H. XU; J. T. ARNASON; S. A. L. BENNETT. *Univ. of Ottawa, CIHR Training Program in Neurodegenerative Lipidomics, Univ. of Ottawa*.
- 11:00 H5 **344.16** The α -helical structure of the hydrophilic loop1 of presenilin 1 contributes to the formation of the substrate binding site. T. TOMITA*; S. TAKAGI-NIIDOME; T. IWATSUBO. *The Univ. of Tokyo, CREST*.
- 8:00 H6 **344.17** Phosphoproteome analysis of an early onset mouse model (TgCRND8) of Alzheimer's disease reveals temporal changes in neuronal and glia signalling pathways. A. P. BLANCHARD*; F. WANG; F. ELISMA; M. GRANGER; H. XU; S. A. L. BENNETT; D. FIGEYS; H. ZOU. *Univ. of Ottawa, Dalian Inst. of Chem. Physics, Chinese Acad. of Sci., Univ. of Ottawa, Univ. of Ottawa*.
- 9:00 H7 **344.18** Bioactive glycerophospholipids and their role in modulating neuronal vulnerability following cerebral ischemia. A. J. SYRETT; H. XU*; N. VALENZUELA; K. GRAHAM; S. FAI; D. FIGEYS; S. A. L. BENNETT. *Univ. of Ottawa, CIHR Training Program in Neurodegenerative Lipidomics, Univ. of Ottawa, Carleton Univ.*
- 10:00 H8 **344.19** Restoration of β -amyloid peptide impaired long-term potentiation in rat hippocampal slices by intraperitoneally injected antioxidant SkQR1. V. G. SKREBITSKY*; N. A. KAPAI; E. V. STELMASHOOK; O. V. POPOVA; R. V. KONDRATENKO; N. K. ISAEV; D. B. ZOROV; V. P. SKULACHEV. *Ctr. of Neurol., A. N. Belozersky Inst. of Physico/Chemical Biology, Moscow State Univ.*
- 11:00 H9 **344.20** Cross-talk between monoamine oxidase-A and presenilin-1 proteins suggests a molecular commonality between depression and Alzheimer's disease. Z. WEI*; J. CHLAN; B. M. CHAHARYN; X. ZHAO; D. D. MOUSSEAU. *Univ. of Saskatchewan, Univ. of Saskatchewan*.
- 8:00 H10 **344.21** PS1/ γ -secretase mediates Ephb4-induced angiogenesis via ephrinb2 processing. N. WARREN; A. GEORGAKOPOULOS; N. K. ROBAKIS*. *Mount Sinai Sch. Med.*
- 9:00 H11 **344.22** Neuroligin1 isoforms interact with Alzheimer's γ -secretase subunit nicastrin. J. M. CUTLER*; V. GAUTAM; D. M. KOVACS. *Massachusetts Gen. Hospital, Harvard Med. Sch.*
- 10:00 H12 **344.23** Activation of gamma-secretase by endoplasmic reticulum stress. K. OHTA*; A. MIZUNO; S. LI; M. ITOH; M. UEDA; Y. HIDA; M. WANG; W. LO; T. NAKAGAWA. *Gifu University/Graduate Sch. of Medicine, Dept. of Neurobio., China Med. Univ. Hospital, Dept. of Med. Res.*
- 11:00 H13 **344.24** Estrogen and its receptors in beta-secretase1 regulation. J. CUI; G. AIT-GHEZALA; H. YAO; Y. SHEN; R. LI*. *Roskamp Inst., Roskamp Inst.*
- 8:00 H14 **344.25** Illuminating BACE1 endosomal dynamic transport in neurons by live imaging. V. BUGGIA-PREVOT*; C. FERNANDEZ; S. RIORDAN; K. VETRIVEL; J. ROSEMAN; X. MECKLER; M. GEORGE; H. BAND; R. VASSAR. *Univ. Chicago, Northwestern Univ., Univ. of Nebraska*.
- 9:00 H15 **344.26** Complete loss of γ -secretase activity in a novel Presenilin-1 knock-in mouse model of familial Alzheimer's disease. D. XIA*; H. WATANABE; B. WU; S. LEE; T. KANEKIYO; J. SHEN; R. J. KELLEHER III. *Harvard Med. Sch., Harvard Med. Sch., Mayo Clin.*
- 10:00 H16 **344.27** Presenilin 1 (PS1) rescues presynaptic deficits at mossy fiber to CA3 synapses in the hippocampus of BACE1 knockouts. H. WANG*; A. MEGILL; I. BEZPROZVANNY; P. WONG; H. LEE. *Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med., Univ. of Texas Southwestern Med. Ctr., Johns Hopkins Univ. Sch. of Med.*
- 11:00 H17 **344.28** PS1/ γ -secretase promote neuronal survival under glucose deprivation via the miR-212/PEA15 pathway. Y. REN; A. GEORGAKOPOULOS*; N. K. ROBAKIS. *Mount Sinai Sch. Med.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 H18 **344.29** • A functional analysis of the pen-2 subunit of the γ -secretase complex. O. HOLMES*; S. PATURI; D. J. SELKOE; M. S. WOLFE. *Brigham and Women's Hospital/Harvard Med. Sch.*

POSTER

345. Cognitive Function

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

8:00 H19 **345.01** An epigenetic intervention against neurodegeneration-associated memory decline. J. GRAFF*; D. REI; J. GUAN; W. WANG; J. SEO; D. M. FASS; P. F. KAO; M. KAHN; S. C. SU; A. SAMIEI; N. F. JOSEPH; S. J. HAGGARTY; I. DELALLE; L. TSAI. *MIT, MIT, Broad Inst., Boston Univ.*

9:00 H20 **345.02** Ability to shift the cognitive strategy in water maze task was impaired in the 5XFAD transgenic mice for Alzheimer's disease. W. CHO; S. LEE; W. JEON; J. HAN*. *Konkuk Univ., Korea Inst. of Oriental Med.*

10:00 H21 **345.03** Methyllycaconitine- and scopolamine-induced cognitive dysfunction: Differential reversal effect of cognitive-enhancing drugs. E. ANDRIAMBELOSON*; B. HUYARD; E. POIRAUD; S. WAGNER. *NEUROFIT, Neurofit.*

11:00 H22 **345.04** Polyphenols for improving cognitive functions in humans : A systematic review. G. B. PATRUDU*; R. PARVATHI; T. M. C. RAO; M. P. . GEETHANJALI. *Andhra Med. Col. & King George Hosp.*

8:00 H23 **345.05** The effect of $\alpha\beta$ accumulation in piriform cortex on single-unit olfactory processing. W. J. XU*; D. A. WILSON. *Nathan Kline Inst.*

9:00 H24 **345.06** • Are any polysomnography variables predictive of progression from mild cognitive impairment to Alzheimer's disease? H. SHINNO*; I. ISHIKAWA; N. ANDO; T. MORI; Y. INAMI; J. HORIGUCHI; Y. NAKAMURA. *Kagawa Univ. Sch. Med., Shimane Univ. Facul Med.*

10:00 H25 **345.07** Is implicit contextual learning preserved in amnesic mild cognitive impairment? S. NEGASH*; D. KLIOT; D. V. HOWARD; J. H. HOWARD, J.R.; S. E. ARNOLD; D. A. WOLK. *Univ. of Pennsylvania, Georgetown Univ., Catholic Univ. of America.*

11:00 H26 **345.08** Diffusion tensor imaging reveals widespread white matter abnormalities in cognitively impaired elderly subjects. T. M. NIR*; N. JAHANSHAD; A. TOGA; B. BOROWSKI; M. A. BERNSTEIN; C. R. JACK; M. W. WEINER; P. M. THOMPSON. *Lab. of Neuro Imaging, Mayo Clin. and Fndn., UCSF Sch. of Med.*

8:00 H27 **345.09** • A novel visual paired associates task detects object ambiguity and semantic familiarity impairments in learning and recognition in very early Alzheimer's disease. K. I. TAYLOR*; A. U. MONSCH. *Univ. Hosp. Basel, Univ. of Cambridge, Univ. Hosp. Basel, Univ. of Basel.*

9:00 H28 **345.10** The effects of basal forebrain cholinergic neuron of recognition tests. J. LEE*; D. JEONG; J. CHANG. *BK 21 Project For Med. Sci. & Dept. of Neurosurg.*

10:00 H29 **345.11** Donepezil improves cognitive deficits induced by chronic cerebral hypoperfusion in rats. K. KWON*; M. KIM; J. KIM; S. KIM; B. CHOI; J. HAN; H. KIM; C. SHIN; S. HAN. *Konkuk Univ., Konkuk Univ., Konkuk Univ., Konkuk university.*

11:00 I1 **345.12** Voluntary exercise induces proteomic changes associated with spatial memory improvement in wild-type, but not APP/PSEN1 transgenics. M. P. MCDONALD*; S. K. RAO; J. A. MOBLEY; A. BERNARDO; F. E. HARRISON. *Univ. of Tennessee Hlth. Sci. Ctr., Univ. of Alabama, Vanderbilt Univ.*

8:00 I2 **345.13** Hiperinsulinemia and type 2 diabetes mellitus induce central nervous system abnormalities and cognitive impairment. J. RAMOS RODRIGUEZ*; O. V. ORTIZ BARAJAS; M. JIMENEZ PALOMARES; E. BERROCOSO; G. PERDOMO; A. M. LECHUGA; I. COZAR CASTELLANO; M. GARCIAALLOZA. *Col. of Medicine. Univ. of Cadiz, Hosp. Universitario Puerta del Mar, Sch. of Medicine.*

9:00 I3 **345.14** Age-dependent contribution of genetic risk factors for Alzheimer's Disease to learning and memory deficiencies. X. HOU*; S. O. ADEOSUN; B. ZHENG; E. GOMEZ-SANCHEZ; J. WANG. *Univ. of MS Med. Ctr., Univ. of MS Med. Ctr., Univ. of MS Med. Ctr.*

10:00 I4 **345.15** Effect of glycemia on memory performance in early Alzheimer's disease. J. K. MORRIS*; E. D. VIDONI; R. A. HONEA; J. M. BURNS. *Univ. of Kansas Med. Ctr.*

11:00 I5 **345.16** Development of cognitive impairments after surgery. I. B. HOVENS; R. G. SCHOEMAKER; E. A. VAN DER ZEE; L. J. MOUTON*; B. L. VAN LEEUWEN. *Univ. of Groningen, Univ. of Groningen, Univ. Med. Ctr. Groningen, Univ. Med. Ctr. Groningen.*

8:00 I6 **345.17** Age-related trajectory of brain functional changes in early-onset Alzheimer's disease: From childhood to early adulthood. Y. T. QUIROZ*; R. A. SPERLING; A. FLEISHER; K. CHEN; A. SCHULTZ; A. ROONTIVA; K. WILLMENT; F. LOPERA; E. M. REIMAN. *Ctr. For Memory and Brain, Psychology Department, Boston Univ., Univ. de Antioquia, Grupo de Neurociencias, Ctr. for Alzheimer's Res. and Treatment, Dept. of Neurology, Brigham and Women's Hospital, Harvard Med. Sch., Banner Alzheimer's Inst., Athinoula A. Martinos. Ctr. for Biomed. Imaging, Massachusetts Gen. Hosp., Brigham and Women's Hospital, Dept. of Neurol.*

9:00 I7 **345.18** Mini-Mental State Examination score is associated with white matter integrity in early Alzheimer's disease. T. R. VANGBERG*; K. WATERLOO; P. ELDEVIK; S. H. JOHNSEN; S. SPARR; G. C. WIKRAN; M. HERDER; C. RODRIGUEZ-ARANDA. *Univ. Hosp. of North Norway, Univ. of Tromsø, Univ. Hosp. of North Norway, Univ. Hosp. of North Norway.*

10:00 I8 **345.19** ▲ Vitamin C, oxidative stress and cognition in Alzheimer's disease. G. KIM*; A. BERNARDO; F. E. HARRISON. *Vanderbilt Univ.*

11:00 I9 **345.20** Effects of chronic stress on alterations of GR-PKA-NF-kappa B signaling and spatial learning in rats with cholinergic deafferentation. S. LEE; J. MA; C. CHUNG*; J. HAN. *Konkuk Univ.*

8:00 I10 **345.21** • Alzheimer's neurodegeneration biomarkers are associated with cognitive decline but not beta amyloid in cognitively normal elderly individuals. M. WIRTH*; C. MADISON; H. OH, Ph.D.; S. LANDAU; C. MARKLEY; W. JAGUST. *Univ. of California.*

9:00 I11 **345.22** Alzheimer's disease (AD) and environmental exposure to lead (Pb): Behavioral and biochemical evidence. S. W. BIHAQI; G. SUBAIEA; A. BHAMINI; N. H. ZAWIA*. *Univ. Rhode Island.*

POSTER

346. ALS Therapy Development

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 I12 **346.01** Lumbar blood-spinal cord breakdown accelerates ALS-like neurodegeneration. E. WINKLER*; J. D. SENGILLO; R. D. BELL; A. P. SAGARE; J. WANG; S. HILLMAN; B. V. ZLOKOVIC. *Univ. of Rochester, USC.*
- 9:00 J1 **346.02** ● The intrathecal application of human bone marrow mesenchymal stromal cells improves motor activity, prolongs survival and preserves perineuronal nets in symptomatic ALS rats. S. FOROSTYAK; A. HOMOLA; P. JENDELOVA; E. M. SYKOVA*. *Inst. Exptl. Med. ASCR, 2nd Med. Faculty, Charles Univ.*
- 10:00 J2 **346.03** Intrathecal transplantation of human stem cells in transgenic Amyotrophic Lateral Sclerosis mouse model. C. J. ALVES*; G. DE OLIVEIRA; T. DUOBLES; J. MAXIMINO; S. BYDLOWSKI; G. CHADI. *Univ. of São Paulo - Sch. of Med., Univ. of São Paulo - Sch. of Med.*
- 11:00 J3 **346.04** ▲ Clinical grade human neural stem cell-mediated therapy of ALS disease in SOD1 G93A animal models. L. DE FILIPPIS*; L. ROTA NODARI; A. GIAVAZZI; C. ZALFA; M. GELATI; D. FERRARI; M. DE LUCA; G. MUZI; D. PROFICO; M. PROJETTI PENSI; G. SGARAVIZZI; A. L. VESCOVI. *Univ. Bicocca Milano, Casa Solievo della Sofferenza, Cell Factory Neural Stem Cells.*
- 8:00 J4 **346.05** Intracisternal delivery of hMSCs regulates the expression of immunomodulatory molecules and enhances motoneuron survival in SOD1 mice. M. M. BOIDO*; V. VALSECCHI; A. PIRAS; G. SPIGOLON; K. MARESCI; D. RUSTICHELLI; S. TEMI; L. MAZZINI; F. FAGIOLI; A. VERCELLI. *Univ. of Turin, Regina Margherita Children's Hosp., Eastern Piedmont Univ.*
- 9:00 J5 **346.06** Allotransplantation of E14.5 cortical or spinal derived neural progenitors in the SOD1G93A rat model of ALS. J. LATTE*; G. GOWING; M. DAS; P. AVALOS; A. LIN; J. MCHUGH; C. N. SVENDSEN. *Cedars Sinai Med. Ctr.*
- 10:00 J6 **346.07** Enhanced motor neuron survival following spinal transplantation of neural progenitors secreting GDNF but not IGF-1 or VEGF in an animal model of ALS. G. M. GOWING*; J. LATTE*; P. AVALOS; B. C. SHELLEY; K. STAGGENBORG; A. LIN; V. ZEDELLA; J. MCHUGH; M. SUZUKI; C. N. SVENDSEN. *Cedars-Sinai, Cedars-Sinai Med. Center, Regenerative Med. Inst., Univ. of Wisconsin.*
- 11:00 J7 **346.08** A study of corticospinal motor neurons in a rat model of Amyotrophic Lateral Sclerosis. G. M. THOMSEN*; G. GOWING; P. AVALOS; J. LATTE*; K. STAGGENBORG; V. ZEDELLA; A. LIN; C. SVENDSEN. *Cedars Sinai Med. Ctr.*
- 8:00 J8 **346.09** Dynamic changes in the glial microenvironment during aging contributes to motor neuron vulnerability in amyotrophic lateral sclerosis. M. DAS*; G. GOWING; P. AVALOS; J. LATTE*; V. ZEDELLA; K. STAGGENBORG; C. SVENDSEN. *Cedars Sinai Med. Ctr.*
- 9:00 J9 **346.10** Evaluation of morbidity following transplantation of human neural progenitors in a rat model of amyotrophic lateral sclerosis. P. AVALOS*; G. GOWING; V. ZEDELLA; J. LATTE*; C. N. SVENDSEN. *Cedars-Sinai Med. Ctr.*
- 10:00 J10 **346.11** ALS-associated peripherin isoforms show dynamic inclusion morphology *in vitro*. J. R. MCLEAN*; P. J. HALLETT; T. M. OSBORN; G. A. SMITH; T. B. BROWN; T. F. S. LAWSON; S. IZEN; N. D. MAZARAKIS; J. ROBERTSON; O. ISACSON. *Harvard Med. Sch., Imperial Col. London, Hammersmith Hosp., Univ. of Toronto.*
- 11:00 J11 **346.12** The Sigma-1 receptor retards propagation of ALS. T. A. MAVLYUTOV*; M. L. EPSTEIN; M. S. HUERTA; A. C. DOUGLASS; A. E. RUOHO. *Univ. of Wisconsin.*
- 8:00 J12 **346.13** Peripheral administration of a semaphorin 3A blocking monoclonal antibody against the neuropilin-1 receptor delays motor endplate denervation and slows distal axonopathy associate with a mouse model of amyotrophic lateral sclerosis. K. VENKOVA*; A. CHRISTOV; K. HENSLEY. *Univ. of Toledo Med. Ctr.*
- 9:00 J13 **346.14** Therapeutic effects of 7,8-dihydroxyflavone in a transgenic model of amyotrophic lateral sclerosis. I. CARRERAS*; O. T. KORKMAZ; N. AYTAN; J. CHOI; N. W. KOWALL; B. G. JENKINS; A. DEDEOGLU. *VA Boston Healthcare Syst., Boston Univ. Sch. of Med., Eskisehir Osmangazi Univ., Massachusetts Gen. Hosp., Harvard Med. Sch.*
- 10:00 J14 **346.15** ● Bb3 as a potential therapy for amyotrophic lateral sclerosis. D. E. SMITH*; N. NARAINDAS; K. JIANG; Y. HAO; T. MICHURINA; Z. GLASS; K. SAYED; J. PARK; G. ENIKOLOPOV. *Angion Biomedica Corp., Cold Spring Harbor Lab.*
- 11:00 J15 **346.16** Identification of small molecule compounds that enhance insulin-like growth factor II expression and preclinical testing of identified compounds for amyotrophic lateral sclerosis. T. M. OSBORN; P. J. HALLETT; J. R. MCLEAN; O. COOPER; T. B. BROWN; S. C. IZEN; O. ISACSON*. *McLean Hosp. / Harvard Med. Sch.*
- 8:00 J16 **346.17** Nanobody against SOD1 in amyotrophic lateral sclerosis. S. HERNANDEZ; A. LAIRD; S. RUDYAK; F. ROUSSEAU; J. SCHYMKOWITZ; W. P. VANDENBERGHE*; W. ROBBERECHT. *K.U. Leuven, VIB, Univ. Hosp. Leuven.*
- 9:00 J17 **346.18** ● Functionalized nanoparticles to enhance regenerative axon growth. D. W. PITATHOMAS*; M. B. STEKETEE; K. KADOR; B. M. HAMPTON; K. A. THAKOR; S. MOYSIDIS; J. E. WEINSTEIN; X. JIN; J. L. GOLDBERG. *Univ. of Miami, Univ. of Miami.*
- 10:00 J18 **346.19** Neurotrophic activity of L-type calcium channel agonists in rat motoneurons in culture: Calmodulin-cAMP-protein kinase A-mediated survival. Y. ARAKAWA*; K. ISHIKAWA. *Tokyo Univ. Hosp.*
- 11:00 J19 **346.20** Increased expression of calcium binding protein, calbindin D28k, in motor neurons of spinal cord of West Nile virus infected hamster model. V. SIDDHARTHAN*; H. WANG; J. D. MORREY. *Utah State Univ.*
- 8:00 J20 **346.21** Regulation of D-amino acid oxidase as a potential therapeutic target for motor neuron disease. J. SASABE*; M. SUZUKI; S. AISO. *Keio Univ. Sch. of Med.*
- 9:00 K1 **346.22** ● PYM50028, a novel neurotrophic factor modulator, produces beneficial effects in three mouse models of amyotrophic lateral sclerosis. P. A. HOWSON*; C. L. WARD; D. G. KAY; J. M. VANKAMPEN; R. I. HICKLING. *Phytopharm Plc, Neurodyn Inc.*
- 10:00 K2 **346.23** Enhancing the unfolded protein response ameliorates disease in a mouse model of mutant SOD1-induced ALS. L. WANG*; R. P. ROOS; B. POPKO. *Univ. Chicago, Univ. Chicago.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 K3 **346.24** Slowing disease progression in the SOD1 mouse model of ALS by blocking neuregulin. F. SONG*; J. LIU; J. RAVITS; J. LOEB. *Wayne State Univ., UCSD.*
- 8:00 K4 **346.25** ▲ A quantitative assessment of pathophysiological axonal motor-cargo traffic. E. R. CROFT*; J. T. FIGANBAUM; C. S. MITCHELL. *Georgia Inst. of Technol.*
- 9:00 K5 **346.26** Identification of Amyotrophic Lateral Sclerosis prognostic and therapeutic clinical predictors. C. S. MITCHELL*; J. D. GLASS; R. H. LEE. *Georgia Inst. of Technol., Emory Univ., Emory Univ.*
- 10:00 K6 **346.27** Electroacupuncture reduces the expression of pro-inflammatory protein in symptomatic amyotrophic lateral sclerosis model. E. YANG*; K. LEE; J. JIANG; S. LEE; S. CHOI. *Korea Inst. of Oriental Med.*

POSTER

347. TDP-43 Animal and Cell Culture Models

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 K7 **347.01** Developing a therapeutic model for TARDBP mutations in amyotrophic lateral sclerosis (ALS) using zebrafish. A. LISSOUBA*; M. LIAO; C. MAIOS; N. CHAMPAGNE; E. KABASHI; P. DRAPEAU. *Univ. De Montreal, Inst. du cerveau et de la moelle epiniere.*
- 9:00 K8 **347.02** Astrocytes expressing the human TDP43 A315T transgene are not toxic to wild-type motor neurons. A. M. HAIDET-PHILLIPS*; T. WILLIAMS; S. K. GROSS; A. TUTEJA; A. SHERMAN; M. KO; A. S. KIM; N. J. MARAGAKIS. *Johns Hopkins Univ.*
- 10:00 K9 **347.03** Confocal microscopy analysis of altered TDP-43 expression in peripheral blood lymphocytes from ALS patients. J. MOUGEOT*; S. GHOSH; A. E. PRICE; A. LUTIN; R. HEMENDINGER; E. J. ARMSTRONG, IIIrd; P. RUSSO; B. R. BROOKS. *Carolinas Med. Ctr. - Carolinas Neuromuscular/ALS-MDA Ctr., Carolinas Med. Ctr. - Cannon Res. Ctr., Carolinas Med. Ctr. - Carolinas Neuromuscular/ALS-MDA Ctr.*
- 11:00 K10 **347.04** Protection from neuromuscular dysfunction in a genetic model of TDP-43 mutation in ALS. G. A. ARMSTRONG*; P. DRAPEAU. *Univ. of Montreal.*
- 8:00 K11 **347.05** Loss- and gain-of-function disease cell models to investigate TDP-43 proteinopathy. E. ONESTO*; C. COLOMBRITA; E. BURATTI; V. SILANI; F. E. BARALLE; A. RATTI. *IRCCS Inst. Auxologico Italiano, Intl. Ctr. for Genet. Engin. and Biotech. (ICGEB), Univ. degli Studi di Milano, "Dino Ferrari" Ctr.*
- 9:00 K12 **347.06** ● Propagation of TDP-43 in non-human primate model of ALS. M. TAJIRI*; T. OHKUBO; N. KIMURA; C. KAWAKAMI; S. TERAOKA; T. UCHIHARA; H. MIZUSAWA; T. YOKOTA. *Tokyo Med. and Dent. Univ., Tsukuba Primate Res. Ctr., Tokyo Metropolitan Inst. for Neurosci.*
- 10:00 K13 **347.07** Regulation of nuclear TDP-43 by NR2A-containing NMDA receptor and phosphatase PTEN. Q. WAN*; M. ZHENG; D. FAN; M. LIAO. *Univ. Nevada Sch. Med., Peking Univ. Third Hosp.*
- 11:00 K14 **347.08** Generation motor neurons through patient-specific iPSCs with mutant TDP-43. N. EGAWA*; K. TSUKITA; K. TAKAHASHI; K. OKITA; K. YOSHIKAWA; S. YAMAWAKI; M. NAITOH; S. SUZUKI; K. OKAMOTO; H. TAKUMA; A. TAMAOKA; T. NAKAHATA; R. TAKAHASHI; S. YAMANAKA; H. INOUE. *CiRA, Kyoto Univ., Grad. Sch. of Medicine, Univ. of Kyoto, Dept. of Neurology, Univ. of Gunma, Dept. of Neurology, Univ. of Tsukuba.*
- 8:00 L1 **347.09** Identification of a compound that inhibits TDP-43 induced neurodegeneration. A. EBATA*; M. FEILER; H. LI; J. P. LEE-ARMANDT; J. BOYD; M. LIU; N. F. LIACHKO; B. C. KRAEMER; J. J. COLLINS; M. A. GLICKSMAN; B. L. WOLOZIN. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med., Wyss Inst. for Biologically Inspired Engineering, Harvard Univ., Lab. for Drug Discovery in Neurodegeneration, Harvard NeuroDiscovery Center, Brigham and Women's Hosp. and Harvard Med. Sch., Geriatrics Res. Educ. and Clin. Center, Veterans Affairs Puget Sound Hlth. Care Syst., Univ. of Washington, Boston Univ., Boston Univ. Sch. of Med.*
- 9:00 L2 **347.10** Gastrointestinal complications in prp-hTDP-43 (A315T) transgenic mouse model of amyotrophic lateral sclerosis. M. KIAEI*; M. A. ESMAEILI; S. YADAV; L. J. HENNINGS. *Univ. of Arkansas for Med. Sci., The Univ. of Arkansas for Med. Sci.*
- 10:00 L3 **347.11** The ALS disease protein TDP-43 is actively transported in motor neuron axons and regulates axon outgrowth. C. FALLINI*; G. J. BASSELL; W. ROSSOLL. *Emory Univ.*
- 11:00 L4 **347.12** Combined adenoviral expression of TDP-43 and FUS genes with shRNAs for proteolytic pathways enhances cytoplasmic aggregate formation in rodent motoneurons *in vitro* and *in vivo*. K. WATABE*; K. AKIYAMA; E. KAWAKAMI; H. YANAGISAWA; K. SANGO; M. TSUKAMOTO. *Tokyo Metropolitan Inst. of Med. Sci.*
- 8:00 L5 **347.13** Codon optimized phenotypes for gain of function analysis of wild type TDP-43. T. YUSUFF; D. K. CHOKSI; S. CHATTERJEE; B. ROY; S. S. AMBEGAOKAR; R. KAYED; G. R. JACKSON*. *UTMB, Univ. Texas Med. Br.*
- 9:00 L6 **347.14** ALS-linked mutations in TDP-43 aberrantly alter the morphology and trafficking of TDP-43-enriched neuronal RNA granules. L. LIU-YESUCEVITZ*; K. L. KOBRIN; B. WOLOZIN. *Boston Univ. Sch. of Med.*
- 10:00 L7 **347.15** Analysis of dietary composition on the phenotype of transgenic TDP-43 mice with progressive motor weakness. N. R. STALLINGS*; K. PUTTAPARTHI; J. L. ELLIOTT. *UT Southwestern Med. Ctr.*
- 11:00 L8 **347.16** Splicing events and transcriptome changes upon TDP-43 and FUS knock-down in human neuroblastoma cells. C. COLOMBRITA*; E. ONESTO; E. BURATTI; A. PIZZUTI; V. SILANI; F. E. BARALLE; A. RATTI. *IRCCS Inst. Auxologico Italiano, Intl. Ctr. for Genet. Engin. and Biotech. (ICGEB), Univ. of Rome, Inst. of Neurol., Univ. of Milan, "Dino Ferrari" Ctr.*
- 8:00 L9 **347.17** ● Non-human primate model of ALS with cytoplasmic mislocalizaion of TDP-43. T. OHKUBO*; H. SASAGURI; M. TAJIRI; N. KIMURA; F. ONO; T. HIRAI; M. ENOMOTO; T. UCHIHARA; H. MIZUSAWA; T. YOKOTA. *Tokyo Med. and Dent. Univ., Tsukuba Primate Res. Center, Natl. Inst. of Biomed. Innovation, Corp. for Production and Res. of Lab. Primates, Tokyo Med. and Dent. Univ., Lab. of Structural Neuropathology, Tokyo Metropolitan Inst. of Med. Sci.*

- 9:00 L10 **347.18** Loss of function effect of TDP-43 cause the motor neuron defect. L. WU*; W. CHENG, Male; C. J. SHEN, Male. *Room N523, Inst. of Mol. Biology, Academia Sinica, Inst. of Mol. Biol.*
- 10:00 L11 **347.19** The role of TRAF6 on TDP-43 in ALS model mice. J. N. CHANG*; B. A. CITRON. *Bay Pines VA Healthcare Syst., Univ. of South Florida Col. of Med.*
- 11:00 L12 **347.20** Clinical phenotype and premature lethality in a transgenic TDP-43 mouse model is estrogen dependent. T. LAEUFER*; M. ARRAS; J. TRACY; C. F. VALORI; S. ABDEL AZIZ; R. NAUMANN; M. NEUMANN. *Inst. of Neuropathology, Univ. Hosp. Zurich, Div. of Surgical Research, Univ. of Zurich, Max-Planck-Institute of Mol. Cell Biol. and Genet.*
- 8:00 L13 **347.21** Endogenous TDP-43, but not FUS, contributes to stress granule assembly via G3BP. A. AULAS; S. STABILE; C. VANDE VELDE*. *Univ. de Montreal.*
- 9:00 L14 **347.22** Investigating the functional role of TDP-43 mutations in human induced pluripotent stem cells derived motor neurons. R. MUTIHAC*; J. ALEGRE-ABARRATEGUI; M. YAMASAKI-MANN; S. COWLEY; W. JAMES; K. TALBOT; R. WADE-MARTINS. *Univ. of Oxford, Univ. of Oxford, Univ. of Oxford.*
- 10:00 L15 **347.23** Loss of Tdp-43 in skeletal muscle is sufficient to cause a myopathy and can trigger early death. S. LIN*. *Johns Hopkins Univ.*
- 11:00 L16 **347.24** Progranulin deficiency causes TDP43 mislocalization and neuron death in the retina. M. E. WARD*; A. TAUBES; B. MILLER; J. GELFAND; L. HERL; R. V. FARESE; L. GAN; A. GREEN. *Gladstone Inst. of Neurolog. Dis., UCSF, Gladstone Inst.*
- 11:00 L20 **348.04** Synaptic plasticity and memory in transgenic mice overexpressing RCAN1. H. WONG*; B. A. ROTHERMEL; E. KLANN; C. A. HOEFFER. *New York Univ., UT Southwestern Med. Ctr., NYU Sch. of Med.*
- 8:00 M1 **348.05** ● Modeling neuron-astrocyte interactions in Down Syndrome using human induced pluripotent stem cells. C. CHEN*; P. JIANG; Y. LIU; W. DENG. *Univ. of California, Davis, Univ. of Texas.*
- 9:00 M2 **348.06** Brain defects in a mouse model of Down Syndrome. J. OLMOS SERRANO*; W. A. TYLER; N. P. CRAMER; C. SETHARES; A. PETERS; Z. GALDZICKI; T. F. HAYDAR. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med., USUHS Sch. of Med.*
- 10:00 M3 **348.07** Electron microscopy study of synapses and mitochondria in the hippocampus and cortex in the triple trisomic mouse model of Down syndrome. S. S. STEPANOV; V. A. AKULININ; A. M. KLESCHEVNIKOV; A. BECKER; M. CATON; E. MASLIAH; Y. Y. YU; P. V. BELICHENKO*. *Omsk State Med. Acad., UCSD, Roswell Park Cancer Inst.*
- 11:00 M4 **348.08** Maternal choline supplementation improves cognitive function in the Ts65Dn mouse model of Down syndrome: Correlations between basal forebrain cholinergic neurons and performance. B. E. POWERS*; J. A. ASH; R. VELAZQUEZ; C. M. KELLEY; M. STRAWDERMAN; M. ALLDRED; S. D. GINSBERG; E. J. MUFSON; B. J. STRUPP. *Cornell Univ., Rush Univ. Med. Ctr., Nathan Kline Institute/New York Univ. Langone Med. Ctr.*
- 8:00 M5 **348.09** ● Decreased protein degradation in a cell line derived from the trisomy 16 (Ts16) mouse cerebral cortex, an animal model of Down Syndrome. C. F. ARRIAGADA*; P. RAMÓN; C. TAPIA; S. SILVA; S. GUTIÉRREZ; R. CAVIEDES; P. CAVIEDES. *ICBM, Fac. Med, Univ. Chile.*
- 9:00 M6 **348.10** ● ▲ Knockdown of Rcan1 increases the levels of VaChT and CHT1 proteins in cell lines derived from the cerebral cortex of a Ts16 mouse, a model of Down syndrome. J. A. NORIEGA*; M. ACUÑA; R. PEREZ-NUÑEZ; A. CARDENAS; J. SEGURA-AGUILAR; P. LOCKMAN; R. CAVIEDES; P. CAVIEDES. *Univ. of Chile, Univ. of Valparaíso, TTUHSC.*
- 10:00 M7 **348.11** The effect of trisomic Hsa21 genes on axonal transport and neuronal morphology in mouse models of Down syndrome. A. RUPARELIA*; M. L. PEARN; C. WU; G. SCHIAVO; V. L. J. TYBULEWICZ; E. M. C. FISHER; W. C. MOBLEY. *Inst. of Neurol., Univ. of California, Univ. of California, Cancer Res. UK London Res. Inst., MRC Natl. Inst. for Med. Res.*
- 11:00 M8 **348.12** Improving noradrenergic signaling in the treatment of cognitive dysfunction in the ts65dn mouse model of down syndrome. V. DANG*; K. MARTIN; S. MOGHADAM; B. MEDINA; B. LIN; D. PATEL; A. SALEHI*. *VA Palo Alto Hlth. Care Syst.*
- 8:00 M9 **348.13** ● The identification of disrupted molecular networks involved in brain maturation and function in the Ts1Cje mouse model of Down Syndrome. P. CHEAH*; C. HEWITT; K. LING; K. TAN; K. SIMPSON; L. HYDE; G. SMYTH; T. THOMAS; H. S. SCOTT. *Univ. Putra Malaysia, Pathology Department, The Peter MacCallum Cancer Ctr., Univ. Putra Malaysia, The Walter and Eliza Hall Inst. of Med. Res., Dept. of Mol. Pathology, The Inst. of Med. and Vet. Sci. and The Hanson Inst.*

POSTER

348. Down Syndrome

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 L17 **348.01** Altered intrinsic and network properties of neocortical neurons in the Ts65Dn mouse model of Down syndrome. N. CRAMER; Z. GALDZICKI*. *Dept. of Anat, Physiol & Genetics, SOM, USUHS.*
- 9:00 L18 **348.02** ● Maternal choline supplementation improves spatial learning and increases adult hippocampal neurogenesis in the Ts65Dn mouse model of Down syndrome. R. VELAZQUEZ*; J. A. ASH; B. E. POWERS; C. M. KELLEY; M. STRAWDERMAN; S. D. GINSBERG; E. J. MUFSON; B. J. STRUPP. *Cornell Univ., Cornell Univ., Rush Univ. Med. Ctr., Nathan Kline Institute/New York Univ. Langone Med. Ctr.*
- 10:00 L19 **348.03** Trisomy for Synaptotagmin1 in Down syndrome is functionally linked to the enlargement of early endosomes, the first morphological change observed in Alzheimer's disease brains. M. POTIER*; J. COSSEC; J. LAFAUR; D. E. BERMAN; I. RIVALS; A. HOISCHEN; S. STORA; C. RIPOLL; C. MIRCHER; Y. GRATTAU; J. OLIVO MARIN; F. DE CHAUMONT; M. LECOURTOIS; S. E. ANTONARAKIS; J. A. VELTMAN; J. M. DELABAR; C. DUYCKAERTS; G. DI PAOLO. *CRICM, UPMC/Inserm UMR-S975/CNRS UMR7225, Taub Inst. for Res. on Alzheimer's Dis. and The Aging Brain, ESPCI, Radboud Univ., Inst. Jérôme Lejeune, Univ. Paris Diderot, Inst. Pasteur, INSERM U 614, Univ. of Geneva.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 M10 **348.14** Excitation-Inhibition balance and learning are modified by Dyrk1a gene dose and EGCG treatment. J. DELABAR*; F. GUEDJ; B. SOUCHET; I. SAHUN; S. LUILIER; A. DUCHON; E. PALY; N. JANEL; J. BIZOT; Y. HERAULT; M. ARBONES; M. DIERSSEN; N. CREAU. *BFA Univ. Paris Diderot, Ctr. Genomic Regulation, Key Obs Lab., ICS-IGBMC, IBMB.*

POSTER

349. Epilepsy: Epileptogenesis

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

8:00 M11 **349.01** Neuroprotective mechanisms in temporal lobe epilepsy: A proteomic study. U. WYNEKEN*; F. GORDILLO; A. CAVIEDES; M. SANDOVAL; A. LUARTE; K. SMALLA; T. KAEHNE. *Univ. De Los Andes, Leibniz Inst. for Neurobio.*

9:00 M12 **349.02** Blood brain barrier disruption following experimental febrile status epilepticus. K. P. PATTERSON*; C. M. DUBE; T. Z. BARAM. *Univ. of California- Irvine, Univ. of California, Irvine, Univ. of California, Irvine.*

10:00 M13 **349.03** Bradykinin B₂ receptors increase hippocampal excitability and susceptibility to seizures in mice. A. BINASCHI*; D. RODI; A. BUZZI; M. BARBIERI; S. ZUCCHINI; G. VERLENGIA; A. BOSCHI; R. COUTURE; B. ONGALI; M. SIMONATO. *Dept. of Clin. and Exptl. Medicine, Section of Pharmacol., Natl. Inst. of Neurosci., Tecnopolo di Ferrara, Lab. per le Tecnologie delle Terapie Avanzate (LTTA), Dept. of Surgery, Anesthesiol. and Radiology, Section of Nuclear Med. - Univ. of Ferrara, Dept. of Physiology, Fac. of Medicine, Univ. de Montréal.*

11:00 M14 **349.04** Activity-dependent plasticity at the axon initial segment in animal models of genetic and acquired epilepsy. R. C. HARTY*; T. KIM; L. CARDAMONE; E. THOMAS; N. JONES; S. PETROU; V. WIMMER. *Florey Neurosci. Inst., Royal Melbourne Hosp.*

8:00 M15 **349.05** ● Adipose tissue-derived mesenchymal stem cells engraftment diminishes the rolling and adhesion process of leukocytes in an experimental model of epilepsy. G. H. REZENDE*; O. C. O. LIMA; A. C. P. OLIVEIRA; P. M. GUIDINE; J. C. TAVARES; M. F. D. MORAES. *Univ. Federal De Minas Gerais.*

9:00 M16 **349.06** Interneuron synapse changes in the piriform cortex after kindling-induced seizures. E. J. POLLOCK*; M. O. POULTER. *Robarts Res. Inst., Univ. of Western Ontario.*

10:00 M17 **349.07** MeCP2 phosphorylation at Ser421 can be mediated via Ca²⁺ - permeable AMPA receptors during 'critical period' in developing brain, and neonatal seizures lead to enhanced MeCP2 phosphorylation. S. N. RAKHADE*; E. ROSENBERG; J. LIPPMAN-BELL; C. HILARIO-GOMEZ; F. JENSEN. *Children's Hosp, Harvard Med. Sch.*

11:00 M18 **349.08** Functional and structural properties of dentate granule cells with hilar basal dendrites in mouse entorhino-hippocampal slice cultures. D. BECKER*; L. WILLEMS; M. VNENCAK; P. JEDLICKA; N. ZAHN; G. SCHULDT; N. MAGGIO; T. DELLER; A. VLACHOS. *Inst. of Clin. Neuroanatomy, Neurosci. Center, Goethe-University, Talpiot Med. Leadership Program, Dept. of Neurol. and J. Sagol Neurosci. Ctr.*

8:00 M19 **349.09** Inflammatory and neuroplastic changes in the hippocampus 24 hours after lateral fluid percussion injury. L. A. SHAPIRO*; M. J. RUCH; S. MUKHERJEE; S. ZEITOUNI. *Texas A&M Univ. COM, Scott and White Hosp., Central Texas Veterans Hlth. Care Syst., Texas A&M Hlth. Sci. Ctr. Col. of Med., Scott and White Hosp.*

9:00 M20 **349.10** Fluid percussion injury increases seizure susceptibility in C57Bl/6 mice. S. MUKHERJEE*; M. J. RUCH; S. ZEITOUNI; L. A. SHAPIRO. *Scott and White Hosp., Central Texas Veterans Hlth. Syst., Texas A&M Hlth. Sci. Center, Col. of Med.*

10:00 N1 **349.11** Heightened mGluR5-Erk signaling drives aberrant plasticity and epileptiform activity in a mouse model of Tuberous Sclerosis. W. POTTER; A. S. ROOPRA*; A. KIRCHNER; P. RUTECKI; C. BURGER; K. J. O'RIORDAN. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, William Middleton Mem. VA Hosp.*

11:00 N2 **349.12** Consequences of lateral posterior nucleus of the thalamus lesion to epilepsy. E. Y. SONODA*; R. M. CYSNEIROS; F. A. SCORZA. *Federal Univ. of Sao Paulo, Univ. Presbiteriana Mackenzie.*

8:00 N3 **349.13** Epileptogenesis following activity deprivation in the developing neocortex. P. TANEJA*; N. D. YEHIELY; S. B. NELSON. *Brandeis Univ.*

9:00 N4 **349.14** Altered dialogue between the hippocampus and the entorhinal cortex during epileptogenesis. L. A. CHAUVIERE*; F. BARTOLOMEI; C. BERNARD. *New York Univ., INSERM U1106.*

10:00 N5 **349.15** ▲ Prevention of cognitive deficits associated with temporal lobe epilepsy with histone deacetylase inhibitors. S. S. SIYOUCEF; S. J. HAGGARTY; J. BRUNEL; C. BERNARD*. *INSERM U1106, Harvard Med. Sch., Ctr. de Recherche en Cancérologie de Marseille (CRCM).*

11:00 N6 **349.16** Acute morphological changes in kindled mice. S. P. SINGH*; X. HE; J. MCNAMARA; S. C. DANZER. *Cincinnati Childrens Hosp., Duke Univ. Med. Ctr., Cincinnati Children's Hosp. Med. Ctr.*

8:00 N7 **349.17** Contribution of MMP-9 to pentylentetrazole-induced kindled seizure by converting pro-BDNF to mature BDNF. H. MIZOGUCHI*; J. SATO; M. SAWADA; T. NABESHIMA; K. YAMADA. *Nagoya Univ., Nagoya Univ., Meijo Univ., Nagoya Univ. Grad. Sch. Med.*

9:00 N8 **349.18** ▲ Up-regulation of matrix extracellular protein Tenascin C and Transforming growth factor beta in hippocampus during epileptogenesis in a temporal lobe epilepsy model. J. LANDGRAVE-GÓMEZ*; O. F. MERCADO-GÓMEZ; V. S. ARRIAGA-AVILA; A. NEBREDACORONA; R. GUEVARA-GUZMAN. *Facultad de Ciencias, U.N.A.M., Facultad de Medicina U.N.A.M.*

10:00 N9 **349.19** Posttraumatic seizures and epilepsy in adult rats after controlled cortical impact. E. R. MILLER; E. A. KHARLAMOV; Z. MTCHEDLISHVILI; K. M. KELLY*. *Allegheny Singer Res. Inst., Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*

11:00 N10 **349.20** ▲ Modulation of dentate granule cell activity by slow cortical oscillations in an animal model of temporal lobe epilepsy. D. W. OUEDRAOGO*; P. LENCK-SANTINI; V. CREPEL; J. EPSZTEIN. *INMED, Dartmouth Med. Sch.*

- 8:00 N11 **349.21** Biochemical and electrophysiological characterization of tetanus neurotoxin-induced epilepsy in mouse visual cortex *in vivo*. M. PIETRASANTA*; M. MAINARDI; E. VANNINI; L. RESTANI; O. ROSSETTO; M. CALEO. *Scuola Normale Superiore, CNR Neurosci. Inst., Univ. di Padova*.
- 9:00 N12 **349.22** Neuroimaging markers for epileptogenesis in pilocarpine-induced rat epilepsy model. H. W. LEE*; H. KIM; S. KIM; Y. JOO; J. OH; Y. KIM; Z. CHO; S. LEE; S. JUN. *Ewha Womans Univ. Sch. Med., Dept. of Med. Science, Neurosci. Res. Inst., Ewha Womans Univ.*
- 10:00 N13 **349.23** Aberrant hippocampal granule cell number is correlated with seizure frequency and duration. M. S. HESTER*; R. PUN; S. DANZER. *Cincinnati Children's Med. Ctr.*
- 11:00 N14 **349.24** ● Increased neurogenesis in non-lesional experimental temporal lobe epilepsy. J. G. JEFFERYS*; P. JIRUSKA; A. B. Y. SHTAYA; D. M. S. BODANSKY; W. P. GRAY. *Univ. Birmingham, Inst. of Physiology, Acad. of Sci. of Czech Republic, Univ. of Southampton, Univ. of Cardiff*.
- 8:00 N15 **349.25** A multivariate Bayesian model to study ictal brain dynamics in drug-resistant epilepsy. S. SANTANIELLO*; S. P. BURNS; S. V. SARMA. *JOHNS HOPKINS UNIVERSITY*.
- 9:00 N16 **349.26** Exploring the seizure network in a novel animal model of temporal lobe epilepsy. R. DHAHER; H. WANG; C. HALDEMAN; A. V. BUMANGLAG; H. P. ZAVERI; T. EID*. *Yale Univ., Yale Univ., Yale Univ.*
- 10:00 N17 **349.27** Anatomical and physiological changes in the cortex of rats following perinatal hypoxic-ischemic insult. J. SPAMPANATO*; J. D. BASTAR; F. E. DUDEK. *Univ. of Utah*.
- 9:00 O3 **350.06** Role of CREB in neural repair and recovery after focal stroke. L. CARACCILO*; Y. SANO; S. J. ALCINO; S. T. CARMICHAEL. *David Geffen Sch. of Med. At UCLA, Psychology and Psychiatry and Brain Res. Inst. at UCLA*.
- 10:00 O4 **350.07** The effect of advanced glycation end-products on blood-brain barrier. F. SHIMIZU*; Y. SANO; H. HARUKI; T. KANDA. *Yamaguchi Univ. Grad.*
- 11:00 O5 **350.08** Identification of lipocalin-2 as a PKC δ phosphorylation substrate in stroke-reperfusion injury. W. CHOU*; Y. WENG; G. WANG; J. D. WHALEY; V. KUMAR; K. SHOKAT; R. O. MESSING. *Kent State Univ., Kent State Univ., Ernest Gallo Clin. and Res. Center, Univ. of California, San Francisco, Howard Hughes Med. Institute, Univ. of California, San Francisco*.
- 8:00 O6 **350.09** Neural stem cell-regulated microRNAs affect endothelial morphogenesis and angiogenesis. T. ROITBAK*; O. BRAGINA; D. BRAGIN; J. L. PADILLA; G. G. PICKETT. *Univ. New Mexico*.
- 9:00 O7 **350.10** Characterization and mechanisms of early ischemic tolerance induced by bilateral common carotid artery occlusion. A. KUNZ*; L. J. SPEETZEN; M. ENDRES. *Charite Univ. Hospital/Experimental Neurol.*
- 10:00 O8 **350.11** Involvement of Cdc25 in neuronal death mediated by ischemic injury. G. O. IYIRHIARO*; C. ESTEY; S. CALLAGHAN; Y. ZHANG; M. J. DURING; R. S. SLACK; D. S. PARK. *Ottawa Hlth. Res. Inst-Neurosci, Ohio State Univ.*
- 11:00 O9 **350.12** Modification of media prefrontal cortex hepatopoietin cn in stroke recovery improved by pre-ischemia running. X. ZHANG; H. LIU; J. ZHOU; K. LIU*. *Capital Univ. of Physical Educ. and Sports*.
- 8:00 O10 **350.13** The temporal expression of SPARC glycoprotein with a permanent MCAO in neonatal rat pups. S. J. HILL-FELBERG*; S. XU; D. J. CAREY; S. A. TOMS; E. A. ECKMAN. *Geisinger Hlth. Systems, Atlantic Hlth. Systems, Geisinger Hlth. Systems, Geisinger Hlth. Systems*.
- 9:00 O11 **350.14** Src family kinases mediate pannexin-1 activation during the anoxic depolarization. N. L. WEILINGER*; P. L. TANG; R. J. THOMPSON. *Hotchkiss Brain Inst. - Univ. of Calgary, Hotchkiss Brain Inst. - Univ. of Calgary*.
- 10:00 O12 **350.15** Hydrogen sulfide mitigates cerebrovascular remodeling during cerebral ischemia. N. TYAGI*; N. QIPSHIDZE; N. NARAYANAN; S. GIVVIMANI; S. C. TYAGI. *Sch. of Medicine, University of Louisville, Univ. of Louisville*.
- 11:00 O13 **350.16** Neuronal glutathione depletion is both a cause and an effect of oxidative stress in ischemia-reperfusion. S. WON*; R. A. SWANSON. *UCSF and SFVAMC*.
- 8:00 O14 **350.17** Chimaerin-1 inhibits axonal sprouting in the somatosensory cortex of the mouse after stroke. S. LI*; L. SIU; K. WANG; A. BRUMM; J. J. OVERMAN; S. T. CARMICHAEL. *UCLA*.
- 9:00 O15 **350.18** ▲ Dysregulation of c-terminus of heat shock cognate 70 interacting protein (CHIP) results in anatomical, behavioral, and cellular impairments. A. C. KALE*; M. A. BUENDIA; T. P. SABORIDO; A. M. PALUBINSKY; J. N. STANKOWSKI; G. D. STANWOOD; B. MCLAUGHLIN. *Vanderbilt Univ. Sch. of Med., Vanderbilt Univ. Sch. of Med., Vanderbilt Univ. Sch. of Med.*

POSTER

350. Ischemia: Molecular Mechanisms II

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 N18 **350.01** Calpain cleaves methionine aminopeptidase 2 in a rat model of ischemia. T. CLINKINBEARD*; S. GHOSHA; S. CRADDOCK; L. PETTIGREW; R. P. GUTTMANN. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky, Univ. of West Florida*.
- 9:00 N19 **350.02** Epsilon PKC mediates translocation of SIRT1 to the mitochondria following ischemic preconditioning. J. W. THOMPSON*; K. R. DAVE; K. C. MORRIS-BLANCO; I. SAUL; M. A. PEREZ-PINZON. *Univ. of Miami Miller Sch. of Med.*
- 10:00 N20 **350.03** Oxygen-glucose deprivation/reperfusion triggered increase in glur2 ser880 phosphorylation involves nadph oxidase. *N. BYRNES, R. ST. CLAIR, P. BESKE, D. JACKSON; *Univ. of Montana, Missoula, MT*.
- 11:00 O1 **350.04** ● FCCP induces intracellular Zn²⁺ release by affecting pH rather than depolarizing mitochondria. L. KIEDROWSKI*. *Univ. Illinois At Chicago*.
- 8:00 O2 **350.05** ● Role of cofilin, an actin cytoskeletal protein, in ischemic conditions. A. MADINENI*; Z. A. SHAH. *Univ. of Toledo Hlth. Sci. Campus*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 O16 **350.19** PINK-1 expression in hypoxic challenge: Implications for conserved pathways in stroke and Parkinson's Disease. B. N. LIZAMA*; A. K. PALUBINSKY; A. C. KALE; H. MCDONALD; B. MCLAUGHLIN. *Vanderbilt Univ.*
- 11:00 O17 **350.20** E3 ligases, mitochondrial dynamics and mitophagy: Conservation of signaling in chronic and acute neurodegenerative disorders. A. M. PALUBINSKY*; J. N. STANKOWSKI; A. C. KALE; S. G. CODREANU; D. C. LIEBLER; B. MCLAUGHLIN. *Vanderbilt - McLaughlin Lab., Johns Hopkins Sch. of Med., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr.*
- 8:00 O18 **350.21** Differential temporal expression of HIF targets may underlie neuroprotection versus toxicity. S. M. JONES*; A. E. NOVAK; J. P. ELLIOTT. *Swedish Med. Ctr., Colorado Brain and Spine Inst., Craig Hosp.*
- 9:00 O19 **350.22** Differential regulation of target genes of HIF in mouse hippocampal cultures. A. E. NOVAK*; S. M. JONES; J. P. ELLIOTT. *Swedish Med. Ctr., CBSI, Craig Hosp.*

POSTER

351. Ischemia: Recovery

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 O20 **351.01** Medial premotor cortex shows a reduction in inhibitory markers and mediates recovery in a mouse model of focal stroke. S. R. ZEILER; E. M. GIBSON; R. E. HOESCH; M. Y. LI; P. F. WORLEY; R. J. O'BRIEN; J. W. KRAKAUER*. *Johns Hopkins, Univ. of Utah, Johns Hopkins, Johns Hopkins, Johns Hopkins Univ.*
- 9:00 P1 **351.02** Rebuilding neuronal networks in the aged brain by stem cell factor and granulocyte-colony stimulating factor in the setting of chronic stroke. L. ZHAO*; L. CUI; S. MURIKINATI; X. ZHANG; W. DUAN. *Louisiana State Univ, Hlth. Sci. Ctr., Second Hosp. of Hebei Med. Univ., Louisiana State Univ, Hlth. Sci. Ctr., Louisiana State Univ, Hlth. Sci. Ctr.*
- 10:00 P2 **351.03** Low intensity treadmill exercise improves memory dysfunction after transient middle cerebral artery occlusion in rats. K. ISHIDA*; H. SHIMADA; A. ISHIDA; T. NOGUCHI; H. NAKASHIMA; K. TAMAKOSHI; M. HAMAKAWA. *Nagoya Univ. Grad. Sch. of Med., Nagoya City Univ. Grad. Sch. of Med., Nagoya Gakuin Univ., Okinawa Rehabil. Ctr. Hosp.*
- 11:00 P3 **351.04** Copolymer-1 induces neurogenesis in a model of cerebral ischemia with reperfusion. A. IBARRA*; Y. CRUZ; J. LOREA; B. PINEDA; J. HERRERA; G. FRANYUTI; R. MELLADO. *Univ. Anahuac-Centro de Investigación Camina.*
- 8:00 P4 **351.05** Long-Term neurological improvement by systemically administered Docosahexaenoic Acid in experimental focal cerebral ischemia. S. HONG*; L. KHOUTOROVA; K. D. ATKINS; L. BELAYEV; A. OBENAU; N. G. BAZAN. *Louisiana State Univ. Hlth. Sci. Ctr., Loma Linda Univ.*
- 9:00 P5 **351.06** Anti-Nogo A immunotherapy and rehabilitation: Differential effects on functional recovery after stroke. A. E. WAHL*; A. SCHRÖTER; M. GULLO; M. E. SCHWAB. *Brain Res. Institute, Univ. and ETH Zurich, ETH Zurich.*
- 10:00 P6 **351.07** tPA treatment of stroke in type one diabetes rats. R. NING*; M. CHOPP; T. YAN; A. ZACHAREK; C. ZHANG; C. ROBERTS; X. CUI; M. LU; J. CHEN. *Henry Ford Hlth. Syst., Oakland Univ., Henry Ford Hosp.*
- 11:00 P7 **351.08** Effect of ischemic lesions on the organization of the forelimb representations in the ipsi and contralesional cortex of rats. L. JEAN-CHARLES; B. K. MANSOORI; B. TOUVYKINE; S. QUESSY; N. DANCAUSE*. *Univ. De Montréal, Univ. de Montreal.*
- 8:00 P8 **351.09** • Manganese Enhanced MRI: An *in vivo* assessment of cortical activation following ischemia in the rhesus monkey. A. L. OBLAK*; T. L. MOORE; D. L. ROSENE; R. J. KILLIANY. *Boston Univ. Sch. Med.*
- 9:00 P9 **351.10** Characterizing the dynamics of brain plasticity in relation to motor recovery from an early acute to chronic stage after stroke. K. P. WESTLAKE*; J. P. GREENBERG; Y. YEN; D. C. GOOD; G. F. WITTENBERG. *Univ. of Maryland Sch. of Med., Wake Forest Univ.*
- 10:00 P10 **351.11** • Appetitively motivated forced use of the impaired forelimb facilitates neurological recovery after focal cerebral ischemia in the rat. J. LIVINGSTON-THOMAS*; T. A. DOUCETTE; R. A. TASKER. *Univ. of Prince Edward Island, Univ. of Prince Edward Island, Univ. of Prince Edward Island.*
- 11:00 P11 **351.12** Motor skill training promote motor functional recovery and neural activity and plasticity following intra-striatal hemorrhage in rats. K. TAMAKOSHI; T. NOGUCHI; A. ISHIDA; H. NAKASHIMA; H. SHIMADA; S. LEE*; K. ISHIDA. *Dept. of Physical Therapy, Grad. Sch. of Medicine, Nagoya Univ., Nagoya Gakuin Univ., Nagoya City Univ. Grad. Sch. of Med.*
- 8:00 P12 **351.13** Ischemia induced hippocampal ascorbate increase is attenuated by pre-ischemia running. H. LIU*; X. ZHANG; Y. ZHANG; K. LIU. *Capital Univ. of Physical Educ. and Sports.*
- 9:00 P13 **351.14** Identification of activity-dependent cortical circuits mediating stroke recovery. E. H. NIE*; S. T. CARMICHAEL. *UCLA.*
- 10:00 P14 **351.15** A live brain imaging study: The combination of stem cell factor and granulocyte-colony stimulating factor promotes synaptogenesis through NF- κ B pathway in the brain of chronic stroke. L. CUI*; L. ZHAO. *Louisiana State Univ. Hlth. Sci. Ctr., Louisiana State Univ. Hlth. Sci. Ctr.*
- 11:00 P15 **351.16** • Movement-dependent oscillatory and spike frequency modulation of the rodent deep cerebellar nuclei. J. COOPERRIDER*; J. T. GALE; H. FURMAGA; H. PARK; A. G. MACHADO. *Cleveland Clin.*
- 8:00 P16 **351.17** • Beta band non isochronous deep cerebellar stimulation enhances motor recovery after cortical ischemia. A. G. MACHADO*; J. COOPERRIDER; H. FURMAGA; K. BAKER; H. PARK; J. GALE. *Cleveland Clin., Cleveland Clin., Cleveland Clin., Cleveland Clin.*
- 9:00 P17 **351.18** • Semi-automated method for lesion volume estimation and visualization. J. T. GALE*; H. PARK; Z. CHEN; J. COOPERRIDER; H. FURMAGA; M. JOHNSON; A. G. MACHADO. *Cleveland Clin.*
- 10:00 P18 **351.19** • Beta band stimulation of the dentate nucleus changes cortical excitability in an endothelin-1 induced stroke rat model. H. TRUONG*; J. T. GALE; J. COOPERRIDER; H. J. PARK; A. G. MACHADO. *Cleveland Clin.*

- 11:00 P19 **351.20** Enriched rehabilitation increases fosB/ΔfosB expression in perilesional cortex. D. R. CORBETT*; J. CLARKE; K. D. LANGDON. *Univ. of Ottawa, Mem. Univ.*
- 8:00 P20 **351.21** Optogenetic stimulation of motor cortex neurons promotes recovery after stroke. M. Y. CHENG*; W. J. WOODSON; E. H. WANG; S. WANG; G. SUN; A. G. LEE; L. FENNO; K. DEISSEROTH; G. K. STEINBERG. *Stanford Univ., Stanford Stroke Ctr., Stanford Inst. for Neuroinnovation and Translational Neurosciences, Stanford Univ., Stanford Univ.*
- 9:00 Q1 **351.22** Direct current stimulation improves limb use after stroke by enhancing inter-hemispheric synchronization in adult rats. A. GÓMEZ PALACIO SCHJETNAN*; J. FARAJI; D. GIDYK; B. MCNAUGHTON; G. A. METZ; A. LUCZAK. *Univ. of Lethbridge.*
- 10:00 Q2 **351.23** Effect of focal stroke on spontaneous cortical activity patterns reveals novel intracortical mechanisms in mouse. M. H. MOHAJERANI*; A. FESHARAKI; J. LEDUE; K. AMINOLTEJARI; D. LIM; T. MURPHY. *Univ. of British Columbia, Univ. of British Columbia.*
- 11:00 Q3 **351.24** Preliminary studies on operant conditioning Tibialis Anterior H-reflex in people with stroke: Background control. R. L. SEGAL*. *Univ. North Carolina Chapel Hill.*
- 11:00 Q11 **352.08** ● Neuropathy-inducing effects of eribulin mesylate in mice with pre-existing neuropathy. K. M. WOZNIAC*; M. FARAH; Y. WU; B. LITTLEFIELD; K. NOMOTO; B. S. SLUSHER. *Johns Hopkins Med. Brain Sci. Inst., Eisai Inc., Johns Hopkins Sch. of Med.*
- 8:00 Q12 **352.09** Expression of vesicular glutamate transporter 2 in dorsal root ganglion neurons during the acute phase following sciatic nerve transection. S. ALOTHMAN*; Z. ZHANG; B. BOLT; M. B. ANDERSON; K. E. MILLER. *Oklahoma State Univ. Ctr. For Hlth. Sci.*
- 9:00 Q13 **352.10** ▲ Wallerian degeneration in galectin-3 knockout mice. B. S. MIETTO; S. JURGENSEN; L. ALVES; M. S. NARCISO; I. ASSUNÇÃO-MIRANDA; D. M. S. VILLA-VERDE; F. R. S. LIMA; M. T. BOZZA; A. B. MARTINEZ*. *Inst. de Ciências Biomédicas - UFRJ, Inst. de Ciências Biomédicas - UFRJ, Inst. de Microbiologia Professor Paulo de Goes - UFRJ, Inst. Oswaldo Cruz - Fiocruz, UFRJ.*
- 10:00 Q14 **352.11** Upregulation of leptin expression and activation of microglia in cuneate fasciculus following cervical root transection. C. LIN; Y. LIN; K. CHANG; H. HSIAO; H. CHENG; M. HUANG*. *Taipei Veterans Gen. Hosp. Col. of Vet. Medicine, Natl. Chung Hsing Univ., Sch. of Medicine, Natl. Yang-Ming Univ.*
- 11:00 Q15 **352.12** Enhancement of peripheral axon regeneration by exercise requires androgen receptor signaling in both male and female mice. A. W. ENGLISH*; N. THOMPSON; D. SENGELAUB. *Emory Univ. Sch. Med., Indiana Univ.*
- 8:00 Q16 **352.13** Demonstration of sciatic nerve recovery following its complete section and treatment with platelet rich plasma and tetanus toxin using electrophysiological and gross functional evaluations in rats. G. O. PEKER*; O. ERBAS; H. GUNAY; L. KUCUK. *Ege Univ., Ege Univ., Ege Univ.*
- 9:00 Q17 **352.14** Assessment of the regenerative efficacy of Schwann cell seeded collagen scaffolds in the rat cauda equina by way of serial retrograde labeling. S. J. MACKENZIE*; A. SINGLA; B. CALANCIE. *Upstate Med. Univ.*
- 10:00 Q18 **352.15** Inhibition of nitric oxide synthase alters post-translational modifications of α-tubulin and tau after facial neurotomy. T. YEH; P. LIU*. *Tzu Chi Univ., Tzu Chi Univ.*
- 11:00 Q19 **352.16** Mesenchymal stem cells in a polycaprolactone conduit promote sciatic nerve regeneration and sensory neuron survival after nerve injury. F. ALMEIDA*; F. FRATTINI; F. PEREIRA LOPES; R. F. RODRIGUES; L. BOLDRINI; M. TOMAZ; A. BAPTISTA; P. MELO; A. B. MARTINEZ. *UFRJ, UFRJ, UFRJ, UFRJ, UFBA.*
- 8:00 Q20 **352.17** Exploration of the relationship between locomotion parameters using the CatWalk gait analysis system in wild type mice. R. J. BATKA; M. M. HAULCOMB; R. M. MEADOWS; K. J. JONES*; T. J. BROWN. *Indiana Univ. Sch. of Med., Roudebush VA Hosp., Indiana Univ. Sch. of Med.*
- 9:00 R1 **352.18** Assessment of gait parameters after combined treatment of electrical stimulation and testosterone following sciatic nerve injury. R. M. MEADOWS*; G. N. MONACO; R. J. BATKA; K. J. JONES; T. J. BROWN. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Roudebush VA Hosp., Loyola Univ. Chicago, Hines VA Hosp.*

POSTER

352. Trauma: Peripheral Nerve

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 Q4 **352.01** ● Granulocyte colony stimulating factor (G-CSF) does not improve axonal outgrowth after sciatic nerve transection in rats. H. FROST; L. STENBERG; M. E. KANJE*; L. DAHLIN. *Lund Univ., Dept. of Biol.*
- 9:00 Q5 **352.02** ● Gender differences in axonal outgrowth as well as in activation and apoptosis of Schwann cells after sciatic nerve injury and repair in healthy and diabetic GK rats. L. STENBERG; H. FROST; M. KANJE; L. B. DAHLIN*. *Lund Univ., Scania Hand Ctr. AB.*
- 10:00 Q6 **352.03** ● Selective optimization of human nerve grafts. J. B. GRAHAM*; D. NEUBAUER; Q. XUE; D. F. MUIR. *Univ. of Florida Col. of Med.*
- 11:00 Q7 **352.04** MMP7 facilitates the functional recovery of the cochlea following acoustic trauma. Q. CAI; B. HU*. *State Univ. Buffalo.*
- 8:00 Q8 **352.05** ● Strain-dependent sensorimotor functional recovery following sciatic nerve injury across multiple rat strains. C. MCEWEN*; E. TROY; S. WONG-GOODRICH; A. GANGULY; A. O. CAGGIANO; T. SCHALLERT; T. PARRY. *Acorda Therapeut., Univ. of Texas at Austin.*
- 9:00 Q9 **352.06** Evaluation of dynamic weight bearing (gait) following unilateral sciatic nerve crush in the mouse. S. WAGNER*; L. GORJ; J. BINDLER; E. POIRAUD; N. KADOUCI; E. ANDRIAMBELOSON. *NEUROFIT.*
- 10:00 Q10 **352.07** Two distinct types of dying back axonal degeneration *in vitro*. G. OZTURK*; N. CENGİZ; E. ERDOGAN; E. K. OGUZ; E. YENIDUNYA; N. AYSIT. *Istanbul Medipol Univ., Yüzüncü Yil Univ., Selcuk Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 R2 **352.19** Up-regulation of glycoprotein non-metastatic melanoma B in axotomized rat sciatic nerve. S. YOKOYAMA*; N. YANAGIDA. *Kanazawa Univ. Grad. Sch. of Med.*

POSTER

353. Neuroinflammation: Molecular Mechanisms I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

8:00 R3 **353.01** Puma regulates inflammation-induced neural precursor cell death. J. GUADAGNO*; S. P. CREGAN. *Robarts Res. Institute, Univ. of Western Ontario.*

9:00 R4 **353.02** β -Funaltrexamine inhibits IL-1R- and TLR4-signaling pathways in human glial cells. L. K. FIGUEROA; D. J. BUCK; S. DAS; C. W. STEVENS; R. L. DAVIS*. *Oklahoma State Univ. Ctr. Hlth. Sci.*

10:00 R5 **353.03** Immune response to alcohol in the adolescent and adult mouse brain. C. J. KANE*; K. D. PHELAN; J. C. DOUGLAS; G. WAGONER; J. JOHNSON; J. XU; P. S. PHELAN; P. D. DREW. *Univ. Arkansas Med. Sci.*

11:00 R6 **353.04** Dendritic cells in the healthy and inflamed brain: A two photon microscopy investigation. M. BENTIVOGLIO*; C. LAPERCHIA; G. GRASSI-ZUCCONI; P. F. SEKE ETET; A. ANDRIOLI; N. VAN REET; P. BUSCHER; M. BUFFELLI. *Univ. Verona, Inst. of Tropical Med.*

8:00 R7 **353.05** Paroxetine prevents the functional impairment of L-glutamate transporters in inflammation by suppression of microglial L-glutamate release. K. SATO*; K. FUJIMORI; J. TAKAKI; T. SUZUKI; Y. SEKINO. *Natl. Inst. Hlth. Sci., Div. Basic Biol Sci, Fac Pharm, Keio Univ.*

9:00 R8 **353.06** Active components from *Emblicao* *fficinalis* and *Terminalia bellerica* protect Central Nervous System by inhibiting iNOS dependent NO overproduction. P. SHARMA; T. CHANDRA; M. THAPLIYAL; K. BHATTI; M. PANT; A. THAPLIYAL*. *Graphic Era Univ., RCU Govt. PG College, Uttarkashi, Uttarakhand, India.*

10:00 R9 **353.07** Spinal cord injury induces inflammatory cytokine expression in lamprey. O. BLOOM*; A. PAPATHEODOROU. *Feinstein Inst. and Hofstra North Shore LIJ Sch. of Med., Feinstein Inst.*

11:00 R10 **353.08** IFITM3 mediates neuronal and behavioral impairments following neonatal immune challenge. D. IBI*; T. NAGAI; A. NAKAJIMA; T. NABESHIMA; K. YAMADA. *Dept. of Neuropsychopharmacology and Hosp. Pharmacy, Nagoya Univ., Grad. Sch. of Pharmaceut. Sciences, Meijo Univ.*

8:00 R11 **353.09** Disruption of RAGE signaling prevents sympathetic neuron malfunction in high glucose conditions: Implications for diabetic autonomic neuropathy. V. A. CAMPANUCCI*; A. CHANDNA. *Univ. of Saskatchewan.*

9:00 R12 **353.10** Mac-1 receptor is a novel receptor mediating extracellular dsRNA-induced cellular immune response. H. ZHOU*; J. LIAO; H. GAO; J. HONG. *NIHES.*

10:00 R13 **353.11** Early life hypoxic stress produces long-lasting cognitive and motor deficits associated with altered inhibitory interneuron phenotype. L. L. DUGAN; E. G. INUL; V. NAGARAJAN; W. NGUYEN; T. MANCHENKOV; D. LUI; O. POULSEN; Q. TANG*; D. ZHOU; G. G. HADDAD. *Univ. of California San Diego, Univ. of California San Diego, Univ. of California San Diego.*

11:00 R14 **353.12** The effect of tumor necrosis factor- α receptor-1 on neurovascular repair after intracerebral hemorrhage stroke. L. WANG*; S. WEI; J. SUN; A. ESPINERA; S. P. YU; L. WEI. *Emory Univ.*

8:00 R15 **353.13** Autoantibodies in opsoclonus myoclonus ataxia syndrome. J. A. PANZER*; J. DALMAU; D. LYNCH. *Children's Hosp. of Philadelphia, ICREA-IDIBAPS.*

9:00 R16 **353.14** PPAR α activators, fenofibrate and Wy-14643, inhibits Myd88 elevation in the mouse brain after LPS injection. S. NAMURA*; G. WANG. *Morehouse Schl Med.*

10:00 R17 **353.15** Lipocalin-2: A novel potential attenuator of HIV-1/gp120-induced brain injury. M. M. HOEFER*; R. MAUNG; C. M. DE ROZIERES; C. C. DOWLING; I. C. CATALAN; A. B. SANCHEZ; M. KAUL. *Sanford-Burnham Med. Res. Inst., Univ. of California San Diego.*

11:00 R18 **353.16** Exacerbated inflammatory responses related with activated microglia after traumatic brain injury in progranulin deficient mice. Y. TANAKA*; T. MATSUWAKI; K. YAMANOUCHI; M. NISHIHARA. *Univ. of Tokyo.*

8:00 R19 **353.17** Microglia and macrophage functions differ after brain injury: A role for their polarisation? S. GIRARD*; D. BROUGH; S. M. ALLAN. *Univ. of Manchester.*

9:00 R20 **353.18** Changes in astrocyte and microglia density and morphology around obstructed catheters used in the treatment of hydrocephalus. C. HARRIS*; S. BROWD; B. LUTZ; I. WASHINGTON; J. P. MCALLISTER, II; K. DEREN-LLOYD; E. SHANKLAND; K. A. MARRO; B. ROYSAM; K. TRETT; P. CHONG; W. SHAIN. *Seattle Children's Res. Inst., Seattle Children's Hosp., Univ. of Washington, Univ. of Utah, Univ. of Washington, Univ. of Houston.*

10:00 S1 **353.19** Role of Complement receptor 1 on microglia: Implications for Alzheimer's disease. H. CREHAN*; J. M. POCOCK; J. HARDY. *Univ. Col. London, Univ. Col. London, Univ. Col. London.*

11:00 S2 **353.20** Role of IL-1 β -danger signals in alcoholic brain pathology. J. Y. ZOU*; F. T. CREWS; M. Univ. North Carolina, Chapel Hill, Univ. North Carolina, Chapel Hill.

8:00 S3 **353.21** Conditional disruption of endothelial I κ B kinase 2 modulates CNS responses to lipopolysaccharide and experimental autoimmune encephalomyelitis. A. RAYASAM; D. Y. LO*; F. LIU; L. J. TAI; J. SERRATS; P. E. SAWCHENKO. *Univ. of Wisconsin, Salk Inst., Lundbeck.*

9:00 S4 **353.22** Dualistic effect of melatonin on the survival of cerebellar granule cell culture. D. G. FRANCO*; R. P. MARKUS. *Inst. of Biosci. - University of São Paulo.*

10:00 S5 **353.23** TonEBP-induced HSP70 and NF- κ B expression is associated with kainic acid-induced neuroinflammation. H. SHIN; B. JEON; R. HEO; D. LEE; H. KIM; S. KANG; G. CHO; W. CHOI; H. KWON; B. LEE; G. ROH*. *Gyeongsang Natl. Univ. Sch. of Med., Ulsan Natl. Inst. of Sci. and Technol., Univ. of Ulsan.*

11:00 S6 **353.24** Chronic neuroinflammation across ages differentially influences cellular and cognitive processes. I. BARDOU*; H. M. BROTHERS; R. M. KAERCHER; S. C. HOPP; C. ALBIN-BROOKS; G. HAMMOND; J. M. HOLLEY; O. CHEN; G. L. WENK. *The Ohio State Univ., The Ohio State Univ., The Ohio State Univ.*

8:00 S7 **353.25** TSPO genotype modulates *in vivo* [11C] PBR28 human brain uptake. A. J. SAYKIN*; K. NHO; S. L. RISACHER; S. KIM; B. C. MCDONALD; T. R. MAGEE; M. R. FARLOW; J. D. WEST; L. SHEN; D. P. O'NEILL; G. D. HUTCHINS; K. K. YODER. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*

9:00 S8 **353.26** Initial evaluation of standardized uptake values as a metric of brain [11C]PBR PET binding. K. K. YODER*; P. R. TERRITO; J. D. WEST; E. D. MORRIS; J. GALLEZOT; K. P. COSGROVE; M. D. NORMANDIN; J. O. HANNESTAD. *Indiana Univ. Sch. Med., Indiana Univ. Sch. Med., Yale Univ. Sch. of Med., Harvard Med. Sch.*

POSTER

354. Neurotoxicity and Neurodegeneration II

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

8:00 S9 **354.01** Evaluation of sodium arsenite-induced inhibition of neurite outgrowth by live cell imaging and alteration of cytoskeletal gene expression in Neuro-2a cells. K. AUNG*; R. KURIHARA; N. SHIZUKA; K. NOHARA; T. KOBAYASHI; S. TSUKAHARA. *Saitama Univ., Natl. Inst. of Envrn. Study.*

9:00 S10 **354.02** Impairment of glutamate AMPA receptor expression by sodium arsenite is related to the neurite suppression in mouse cortical neurons. F. MAEKAWA*; T. SUBOI; S. TSUKAHARA; K. NOHARA. *Natl. Inst. for Envrn. Studies, The Univ. of Tokyo, Saitama Univ.*

10:00 S11 **354.03** Effects of the repeated exposure to herbicide glyphosate on behavior and the nigrostriatal and mesolimbic dopaminergic systems of the albino rat. I. HERNÁNDEZ-PLATA; M. GIORDANO; V. RODRIGUEZ CORDOVA*. *Inst. de Neurobiología UNAM.*

11:00 S12 **354.04** ▲ Effects of hypercalcemia in a crayfish model : Neuron, CNS, intestine, and behavior. M. CRUM*; R. COOPER; M. ROBINSON; A. ROBINSON; L. DECASTRO. *Univ. of Kentucky, Col. of Medicine., Univ. of Kentucky, Henry Clay High Sch.*

8:00 S13 **354.06** Neuropeptide Y modulates retinal ganglion cell responses and protects ganglion cells against excitotoxicity. A. F. AMBROSIO*; J. MARTINS; F. ELVAS; D. BRUDZEWSKI; B. KOLOMIETS; S. PICAUD; C. CAVADAS; M. CASTELO-BRANCO; A. R. SANTIAGO. *Ctr. Neurosci. Cell Biol. NIF 502510439, Fac. of Medicine, Univ. of Coimbra, AIBILI, Inst. de la Vision, Fac. of Pharmacy, Univ. of Coimbra.*

9:00 S14 **354.07** Dexamethasone but not hydrocortisone decreases neurogenesis in neonatal rats. A. J. BHATT*; Y. FENG; J. WANG; M. FAMUYIDE. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr.*

10:00 S15 **354.08** Effect of exposure to intermediate frequency magnetic fields on memory function-related gene expression in hippocampus of C57BLmice. T. WIN SHWE*; S. OHTANI; A. USHIYAMA; H. FUJIMAKI; H. NITTA; N. KUNUGITA. *Natl. Inst. Envir, Natl. Inst. of Publ. Hlth.*

11:00 S16 **354.09** Interactions between heavy metals on neuron and glial function. D. R. WALLACE*; B. B. BARNES; A. N. HOOD. *Oklahoma State Univ.*

8:00 S17 **354.10** Developmental exposure to Arctic toxicants reduces neurogenesis and modifies expression of inflammatory and pathological biomarkers in aged rat. N. Y. RUSTOM*; B. WILD; M. GODBOUT CHELIAK; G. CROWE; W. J. BOWERS; S. P. HAYLEY. *Carleton Univ., Hlth. Canada.*

9:00 S18 **354.11** Comparison of neuroprotective properties of positively and negatively charged neuroactive steroids. L. RAMBOUSEK*; K. VALES; A. STUCHLIK; L. KLETECKOVA; H. CHODOUNSKA; L. VYKLICKY. *Inst. of Physiol. - ASCR, 2nd Fac. of Medicine, Charles Univ. in Prague, Inst. of Organic Chem. and Biochemistry, Acad. of Sci. of the Czech Republic.*

10:00 S19 **354.12** Therapeutic effects of lithium chloride on trimethylin-induced hippocampal neurotoxicity *in vivo* and *in vitro*. J. KIM*; M. YANG; J. KIM; S. KIM; T. SHIN; H. WANG; C. MOON. *Chonnam Natl. Univ., Jeju Natl. Univ., Michigan State Univ.*

11:00 S20 **354.13** ● Exposure of isoflurane to neonatal mice results in behavioral changes. J. M. SCHILLING*; A. VOONG; G. C. GROGMAN; S. E. KELLERHALS; I. NIESMAN; S. S. ALI; D. M. ROTH; H. H. PATEL; P. M. PATEL; B. P. HEAD. *VASDHS/UCSD Dept. of Anesthesia.*

8:00 T1 **354.14** N-Acetylaspartate (NAA) metabolism and astroglial vacuolization in a mouse model of Canavan disease. E. J. MILLS KO*; P. BANNERMAN; F. GUO; D. PLEASURE. *UC Davis, Shriners Hosp. For Children Northern California, UC Davis Sch. of Med., Inst. for Pediatric Regenerative Med., UC Davis Sch. of Med.*

9:00 T2 **354.15** The involvement of autophagy in arsenite-induced neurotoxicity in primary cortical neurons. Y. TENG*; M. LIN. *Natl. Yang-Ming Univ.*

10:00 T3 **354.16** Diazepam pre and during gestation induces histological changes in fetal retina of mouse. M. MARQUEZ-OROZCO*; M. V. GASCA-RAMIREZ; G. DE LA FUENTE-JUAREZ; A. MARQUEZ-OROZCO. *Univ. of Mexico (UNAM).*

11:00 T4 **354.17** Hippocampal dendritic morphology upon prenatal chemical exposure in mice. E. KIMURA*; W. MIYAZAKI; C. MATSUYOSHI; M. KAKUYAMA; C. TOHYAMA. *Lab. Environ. Hlth. Sci., CDBIM, Grad. Sch. of Med., Univ. of Tokyo., Dept. Publ. Health, Fac. of Life Sci., Kumamoto Univ.*

8:00 T5 **354.18** A derivative of the CRMP2 binding compound lanthionine ketimine provides neuroprotection in a mouse model of cerebral ischemia. Z. A. SHAH*; S. NADA; J. TULSULKAR; A. RAGHVAN; K. HENSLEY. *Univ. of Toledo Col. of Pharm. and Pharmaceut. Sci., Univ. of Toledo Col. of Pharm. and Pharmaceut. Sci.*

9:00 T6 **354.19** Ethoxyquin provides neuroprotection via hsp90 to ameliorate chemotherapy-induced peripheral neuropathy. J. ZHU*; W. CHEN; C. ZHOU; N. REED; A. HOKE. *Johns Hopkins Univ.*

10:00 T7 **354.20** ● DFP excitotoxicity and its reversal by 4R-cembranoid in the acute hippocampal slices. P. A. FERCHMIN*; D. PÉREZ; B. L. CUADRADO; M. CARRASCO; A. H. MARTINS; V. A. ETROVIC. *Univ. Central Del Caribe.*

11:00 T8 **354.21** ● Identification of an iPSC-derived model of familial and sporadic Alzheimer's disease in multiple cortical neuron dysfunction endpoints: Role in testing modulators for neuroprotective effects. E. C. BEATTIE*; V. DANG; S. WRIGHT; L. NGUYEN; B. COOPER; S. HUSSAIN; C. RAMOS; A. CRUM; J. BRIGHT; B. CHRISTIE; E. ROSE; M. BURKHARDT; J. DIMOS; M. GRSKOVIC; A. JAVAHERIAN; S. IRION; N. STAGLIANO; I. GRISWOLD-PRENNER. *Iperian.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 T9 **354.22** Additional insult transforms the chronic and adaptive ER stress to apoptosis underlying the selective neuron vulnerability. Y. LIU*; Z. SIMMONS; J. R. CONNOR. *Penn State Univ. Hershey Med., Penn State University, Hershey Col. of Med.*
- 9:00 T10 **354.23** Developmental atrazine exposure in zebrafish leads to long-term neurotransmitter deficits. G. J. WEBER; C. XIAO; S. E. WATSON; J. L. FREEMAN; J. R. CANNON*. *Purdue Univ.*
- 10:00 T11 **354.24** Neonatal exposure to a single dose of ionising radiation during brain development can cause cognitive defects and increased levels of tau in adult mice. S. BURATOVIC; B. STENERLÖW; S. SUNDELL-BERGMAN; A. FREDRIKSSON; H. VIBERG; P. L. ERIKSSON*. *Uppsala Univ., Uppsala Univ., Swedish Univ. of Agr. Sci.*
- 11:00 T12 **354.25** Effect of extremely low frequency electromagnetic fields (120Hz harmonic waves; 0.66mT) on the structure of cerebral and cerebellar cortices of the adult male rat. L. ANDRES BARBA; L. CAÑEDO DORANTES; J. GARCIA VELASCO; C. CUELLAR LEMUS; A. FERIA-VELASCO*. *Univ. Guadalajara, Univ. Autonoma de Morelos, Univ. Guadalajara, Univ. Guadalajara.*
- 8:00 T13 **354.26** Neonatal rat exposure to propofol modulates the expression of proteins that regulate synaptic plasticity. D. MILANOVIC*; V. PESIC; J. POPIC; N. LONCAREVIC-VASILJKOVIC; V. TESIC; S. KANAZIR; V. JEVTOVIC-TODOROVIC; S. RUZDIJIC. *Inst. For Biol. Res., Univ. of Virginia Hlth. system.*
- 9:00 T14 **354.27** Rat hippocampal alterations could underlie behavioral abnormalities induced by moderate noise exposure. S. L. URAN; L. AON-BERTOLINO; L. G. CACERES; F. CAPANI; L. R. GUELMAN*. *1a Catedra De Farmacologia, Facultad De Medicina (UBA), CEFYBO-CONICET, Inst. de Investigaciones Cardiológicas "Prof. Dr. Alberto C. Taquini" (ININCA), UBA-CONICET, Inst. de Investigaciones Cardiológicas.*
- 10:00 T15 **354.28** • The novel neurosteroid DHEA spiroepoxy derivative, BNN27, provides neuroprotection to the retina when administered in drops and intraperitoneally in the STZ-model of diabetic retinopathy. K. A. THERMOS*; P. IORDANIDOU; S. POULAKI; E. KOULAKIS; I. CHARALAMPOPOULOS; A. GRAVANIS. *Univ. of Crete, Sch. of Med., FORTH.*
- 11:00 T16 **354.29** Ethoxyquin is a neuroprotective drug in a model of Human Immunodeficiency Virus (HIV)-associated sensory neuropathy. M. RAY*; N. REED; J. ZHU; A. HOKE. *Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med.*
- 8:00 T18 **354.31** The evaluation of AZ66, an optimized sigma receptor ligand, against methamphetamine-induced dopaminergic neurotoxicity and memory impairment in mice. R. R. MATSUMOTO*; M. J. SEMINERIO; R. HANSEN; N. KAUSHAL; C. R. MCCURDY; H. ZHANG. *West Virginia Univ., West Virginia Univ., Univ. of Mississippi.*
- 9:00 T17 **354.30** Ultrastructural changes in the caudate nucleus of mice chronically treated with manganese. E. M. BONILLA*; V. VILLALOBOS; J. P. HERNANDEZ-FONSECA; S. MEDINA-LEENDERTZ; M. MORA. *Maracaibo, Zulia, Univ. del Zulia, Facultad Exptl. de Ciencias, Univ. del Zulia, Facultad de Medicina, Inst. Venezolano de Investigaciones Cientificas, Ctr. de Investigaciones Biomédicas.*

POSTER

355. Neuroinflammation: HIV and Infection I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 T19 **355.01** Combined morphine and HIV-1 Tat-induced synaptodendritic injury is accompanied by disruption of ion homeostasis and ATP depletion. S. FITTING; S. ZOU; P. E. KNAPP; K. F. HAUSER*. *Virginia Commonwealth Univ., Virginia Commonwealth Univ., Virginia Commonwealth Univ.*
- 9:00 T20 **355.02** HIV-1 Tat and gp120 differentially affect the viability and phenotype of maturing oligodendroglia: Potential interactions with opiates alter Ca²⁺ dynamics. S. ZOU*; S. FITTING; K. F. HAUSER; P. E. KNAPP. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*
- 10:00 U1 **355.03** HIV-1SF162 and morphine cause interactive toxicity in striatal neurons. R. R. MASVEKAR; P. E. KNAPP*; K. F. HAUSER; N. EL-HAGE. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*
- 11:00 U2 **355.04** Interference with CCR5 prevents morphine and Tat interactive neurotoxicity. E. M. PODHAIZER*; Y. ZHANG; P. E. KNAPP; K. F. HAUSER. *Virginia Commonwealth Univ., Virginia Commonwealth Univ., Virginia Commonwealth Univ.*
- 8:00 U3 **355.05** P2X₄ receptor involvement in opioid drug and HIV-1-induced neuronal injury and death: Implications for purinergic dysfunction in neuroAIDS. M. E. SORRELL*; S. ZOU; P. KNAPP; K. HAUSER. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*
- 9:00 U4 **355.06** E2F1 at the synapse: Novel functions for a cell-cycle transcription factor in a non-cell-cycle context. J. H. TING*; S. SCHLEIDT; J. WU; Y. WANG; D. R. MARKS; K. L. JORDAN-SCIUTTO. *Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 10:00 U5 **355.07** Investigating the roles of MDM2 and MDMX in neuronal survival. D. J. COLACURCIO*; C. AKAY; K. L. JORDAN-SCIUTTO. *Univ. of Pennsylvania.*
- 11:00 U6 **355.08** Involvement of the Endogenous Antioxidant Response in primary neuroglial, neuronal, and astrocytic cultures exposed to antiretroviral compounds. B. K. JENSEN*; C. AKAY; K. LINDL; K. JORDAN-SCIUTTO. *Univ. of Pennsylvania.*
- 8:00 U7 **355.09** Antiretroviral drugs promote amyloidogenic APP processing via phospho-eIF2 α -dependent translational upregulation of BACE1. P. J. GANNON*; C. AKAY; A. YEE; A. ODELEYE; M. COOPER; J. CLEMENTS; J. MANKOWSKI; K. JORDAN-SCIUTTO. *Univ. of Pennsylvania, Johns Hopkins Univ.*
- 9:00 U8 **355.10** The role of cell cycle protein E2F1 in HIV-induced neurotoxicity. J. ZYSKIND*; Y. WANG; C. AKAY; D. KOLSON; K. JORDAN-SCIUTTO. *Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 10:00 U9 **355.11** Mdmx as a neuroprotective factor to attenuate hiv-induced neuronal damage. C. AKAY*; D. COLACURCIO; K. A. LINDL; K. L. JORDAN-SCIUTTO. *Univ. Pennsylvania.*
- 11:00 U10 **355.12** HIV-1 Tat induces an increase in inhibitory synaptic connections between hippocampal neurons in culture. N. J. HARGUS*; S. A. THAYER. *Univ. of Minnesota.*
- 8:00 U11 **355.13** HIV-1 Tat induces excitotoxic loss of pre-synaptic terminals. A. SHIN*; S. A. THAYER. *Univ. of Minnesota-Twin Cities.*

- 9:00 U12 **355.14** Microglial activation is LRRK-ing in HIV-1 associated neurocognitive disorders. J. M. TABOR-GODWIN*; D. F. MARKER; S. LU; H. A. GELBARD. *Univ. of Rochester Med. Ctr.*
- 10:00 U13 **355.15** Altered microglial gene expression in HIV encephalitis, as determined by microarray analysis of laser capture microdissected macrophages/microglia from postmortem human brain. T. FISCHER-SMITH*; S. BANERJEE; S. M. GUNNAM; M. J. ALLDRED; S. D. GINSBERG. *Temple Univ. Sch. of Med., Ctr. for Dementia Research, Nathan Kline Inst., Ctr. for Dementia Research, Nathan Kline Institute; New York Univ. Langone Med. Ctr.*

POSTER

356. Brain Imaging Alterations in Schizophrenia and Other Psychoses I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 U14 **356.01** Altered hippocampal response during stimulus encoding: A potential indicator of genetic liability for schizophrenia. R. RASETTI*; V. S. MATTAY; M. G. WHITE; Q. CHEN; X. CHENG; J. PODELL; F. SAMBATARO; J. H. CALLICOTT; D. R. WEINBERGER. *NIH, Lieber Inst. for Brain Development, Johns Hopkins Med. Campus, 855 North Wolfe Street, Brain Ctr. for Motor and Social Cognition, Inst. Italiano di Tecnologia at UNIPr.*
- 9:00 U15 **356.02** Reward system activation in patients with schizophrenia treated with olanzapine, blonanserin and aripiprazole - A fMRI study-. N. HASHIMOTO*; A. TOYOMAKI; T. MIYAMOTO; I. KUSUMI. *Grad. Sch. of Medicine, Hokkaido Univ.*
- 10:00 U16 **356.03** Disruption of the frontoparietal control network in schizophrenia and bipolar disorder: A common pathway for psychosis? J. T. BAKER*; A. J. HOLMES; R. L. BUCKNER; D. ONGUR. *McLean Hosp., Harvard Med. Sch., Harvard Univ., HHMI, Massachusetts Gen. Hosp.*
- 11:00 U17 **356.04** ▲ Decreased control by SMA in childhood-onset schizophrenia during motor function. C. M. NORONHA*; R. WHITE; F. LALONDE; N. GOGTAY; V. DIWADKAR. *Wayne State Univ. Sch. of Med., Natl. Inst. of Mental Hlth.*
- 8:00 U18 **356.05** Subcortical modulation of attentional control by second-generation antipsychotics in first-episode psychosis. T. IKUTA*; A. K. MALHOTRA; D. G. ROBINSON; J. A. GALLEGO; B. D. PETERS; P. GRUNER; J. KANE; S. SEVY; P. R. SZESZKO. *The Feinstein Inst. For Med. Res., The Zucker Hillside Hosp., Hofstra North Shore - LIJ Sch. of Med., Hudson Valley Psychiatric Associates.*
- 9:00 U19 **356.06** ● Predicting treatment response in schizophrenia using functional magnetic imaging acquired during an episodic memory task. N. L. HUTCHESON*; M. D. WHELOCK; J. A. HADLEY; M. A. REID; D. M. WHITE; A. C. LAHTI. *Univ. Alabama, Birmingham, Univ. Alabama, Birmingham, Univ. Alabama, Birmingham, Univ. Alabama, Birmingham, Univ. Alabama, Birmingham.*
- 10:00 U20 **356.07** ● fMRI BOLD variance in mesocorticolimbic network explained by treatment outcome in patients with schizophrenia: Implications for predicting response to antipsychotic medication. M. D. WHELOCK*; M. A. REID; N. L. HUTCHESON; D. M. WHITE; A. C. LAHTI. *UAB, UAB, UAB, UAB, UAB.*
- 11:00 V1 **356.08** Antipsychotic drug treatment restores impaired limbic system connectivity in schizophrenia. J. A. HADLEY*; D. M. WHITE; R. NENERT; M. S. BOLDING; K. M. VISSCHER; A. C. LAHTI. *Univ. of Alabama At Birmingham, Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham.*
- 8:00 V2 **356.09** Are NAA reductions etiological in neuropsychiatric disorders? P. S. ARIYANNUR; A. PEETHAMBARAN; E. BARRY; B. ANDREWS-SHIGAKI; A. BOSOMTWI; H. TANG; R. SELWYN; N. GRUNBERG; J. R. MOFFETT; M. A. NAMBOODIRI*. *USUHS, USUHS, USUHS, USUHS, USUHS.*
- 9:00 V3 **356.10** ● Performance discrepancies in patients with schizophrenia during two reward tasks. D. M. WHITE; K. B. AVSAR; R. E. WELLER; J. E. COX; M. D. WHELOCK; M. A. REID; J. A. HADLEY; A. C. LAHTI*. *Univ. Alabama, Univ. Alabama, Univ. Alabama.*
- 10:00 V4 **356.11** A study of frontostriatal circuitry gray and white matter in schizophrenia. J. J. LEVITT*; P. PELAVIN; T. BALLINGER; R. W. MCCARLEY; M. E. SHENTON. *Harvard Med. Sch., VA Boston HCS, Psychiatry, Brigham and Women's Hospital, Psychiatry Neuroimaging Lab, Harvard Med. Sch.*
- 11:00 V5 **356.12** ● Association of glutamate and N-acetylaspartate in schizophrenia before and after treatment with risperidone: A proton magnetic resonance spectroscopy study. M. A. REID*; N. V. KRAGULJAC; D. M. WHITE; N. L. HUTCHESON; M. D. WHELOCK; J. A. HADLEY; J. A. DEN HOLLANDER; A. C. LAHTI. *Univ. of Alabama at Birmingham.*
- 8:00 V6 **356.13** Stage specific abnormalities of glutamatergic metabolites and N-acetylaspartate in individuals with schizophrenia. T. NATSUBORI*; H. INOUE; O. ABE; Y. TAKANO; N. IWASHIRO; Y. AOKI; K. TAKEI; S. KOIKE; M. MURAKAMI; N. YAHATA; M. KATSURA; W. GONOI; H. SASAKI; H. TAKAO; K. KASAI; H. YAMASUE. *The Univ. of Tokyo, Grad. Sch. of Medicine, Univ. of Tokyo, Grad. Sch. of Medicine, Univ. of Tokyo, Hlth. Service Center, Univ. of Tokyo.*
- 9:00 V7 **356.14** ● Glutamate dysregulation in pediatric bipolar disorder: A 1H MRS study. E. M. SIKOGLU*; A. A. LISO; D. KENNEDY; J. KING; R. A. E. EDDEN; J. A. FRAZIER; C. M. MOORE. *UMASS Med. Sch., Kennedy Krieger Inst.*
- 10:00 V8 **356.15** Hyperactivity in a functional network involving voice-selective cortical regions during thought generation in hallucinating schizophrenia patients. K. M. LAVIGNE*; L. RAPIN; M. DOHEN; H. LÖEVENBRUCK; J. C. WHITMAN; P. D. METZAK; T. S. WOODWARD. *BC Mental Hlth. and Addiction Res. Inst., Univ. of British Columbia, Univ. du Quebec à Montréal, Grenoble Univ.*
- 11:00 V9 **356.16** Schizophrenia patients and unaffected siblings show reduced activation in the dorsolateral prefrontal cortex during the n-back working memory task using MEG. K. CLINE; F. CARVER; T. HOLROYD; J. APUD; D. R. WEINBERGER; R. COPPOLA*. *NIMH, NIMH, LIBD.*
- 8:00 V10 **356.17** Expression of schizophrenia susceptibility gene ZNF804A in human brain. H. COUSIJN*; S. L. EASTWOOD; M. WALKER; C. SHANNON WEICKERT; P. W. J. BURNET; P. J. HARRISON. *Univ. of Oxford, Univ. of New South Wales.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 V11 **356.18** Preliminary evidence of brain microstructural alterations in geriatric bipolar disorder using diffusion kurtosis imaging. A. GONENC*; N. K. MADURAI; M. C. MALLOY; D. G. HARPER; B. P. FORESTER. *McLean Hosp., Harvard Med. Sch., McLean Hosp.*
- 10:00 V12 **356.19** Gene expression profiling of oligodendrocytes in dorsolateral prefrontal cortex deep white matter in bipolar disorder and schizophrenia. S. A. MAUNEY*; C. PIETERSEN; J. GOLDSTEIN; T. PETRYSHEN; L. SEIDMAN; M. SHENTON; R. MCCARLEY; T. WOO. *McLean Hosp., Brigham and Women's Hosp., Harvard Med. Sch., Massachusetts Gen. Hosp., Beth Israel Deaconess Med. Ctr., Veterans Affairs Boston Healthcare Syst.*
- 11:00 V13 **356.20** Heterogeneity of prefrontal cortex pyramidal neurons: dopamine denervation elicits dendritic spine loss of pyramidal cells based on projection target. H. WANG*; A. DEUTCH. *Vanderbilt Univ. Med. Ctr.*
- 8:00 V14 **356.21** Increased expression of transforming growth factor beta-1 (TGF- β 1) mRNA in the amygdala of schizophrenic subjects. M. MARKOTA*; H. PANTAZOPOULOS; S. BERRETTA. *McLean Hosp., Harvard Med. Sch., McLean Hosp., Harvard Med. Sch.*
- 9:00 V15 **356.22** Neurobiological and genetic markers in schizophrenia: A theoretical replication using the allen institute for brain science online database. K. M. GALLANDER*; E. GAHTAN. *Humboldt State University, Humboldt State University.*
- 10:00 V16 **356.23** Mitochondrial effects of a putative DISC1 mutation, 37W, in schizophrenia. F. OGAWA*; E. L. V. MALAVASI; D. C. SOARES; D. J. PORTEOUS; J. K. MILLAR. *Univ. of Edinburgh.*
- 9:00 W2 **357.06** Impaired coupling of glycolytic enzymes and characterization of the EAAT2 interactome in schizophrenia. D. SHAN; D. MOUNT; S. MOORE; V. HAROUTUNIAN; J. H. MEADOR-WOODRUFF; R. E. MCCULLUMSMITH*. *Univ. Alabama-Birmingham, Mount Sinai Sch. of Med.*
- 10:00 W3 **357.07** Abnormalities of the ubiquitin-proteasome system in the superior temporal gyrus in schizophrenia. M. D. RUBIO*; V. HAROUTUNIAN; J. H. MEADOR-WOODRUFF. *Univ. of Alabama At Birmingham, Mount Sinai Sch. of Med.*
- 11:00 W4 **357.08** • Pre- and postsynaptic markers of cortical parvalbumin basket cell terminals in schizophrenia. J. R. GLAUSIER*; K. N. FISH; D. A. LEWIS. *Univ. Pittsburgh.*
- 8:00 W5 **357.09** • Cortical gene expression changes after a conditional knockout of the 67 kDa isoform of glutamate decarboxylase gene in parvalbumin-containing GABA neurons. D. D. GEORGIEV*; T. YOSHIHARA; Y. MINABE; D. A. LEWIS; T. HASHIMOTO. *Kanazawa Univ. Grad. Sch. of Med. Sci., Kanazawa Univ. Grad. Sch. of Med. Sci., Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 9:00 W6 **357.10** • Decreased expression of transcriptional regulatory factor Zif268 in the prefrontal cortex of subjects with schizophrenia. S. KIMOTO*; H. H. BAZMI; D. A. LEWIS. *Univ. of Pittsburgh.*
- 10:00 W7 **357.11** Decreased perineuronal net labeling and altered parvalbumin immunoreactivity in the dorsal lateral prefrontal cortex of subjects with schizophrenia. J. F. ENWRIGHT*, III; D. ARION; K. FISH; D. LEWIS. *Univ. of Pittsburgh Med. Ctr.*
- 11:00 W8 **357.12** • Expression profile of transcripts regulating GABA and glutamate inputs to pyramidal cells in the dorsolateral prefrontal cortex of subjects with schizophrenia. D. DATTA*; D. ARION; D. LEWIS. *Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 8:00 W9 **357.13** • Characterization of the factors affecting post-mortem brain tissue volume. L. MCCLEMENT; D. A. LEWIS*. *Univ. Pittsburgh.*
- 9:00 W10 **357.14** • Assessment of glial cell transcripts in human dorsolateral prefrontal cortex. A. A. CURLEY*; D. ARION; D. A. LEWIS. *Univ. Pittsburgh.*
- 10:00 W11 **357.15** Somatic deletions in brain DNA from an individual with schizophrenia. S. KIM*; M. WEBSTER. *Stanley Med. Res. Inst.*
- 11:00 W12 **357.16** Glutamatergic signaling in the hippocampus and anterior cingulate cortex in schizophrenia. C. MEYER*; W. LI; S. GHOSE; C. A. TAMMINGA. *UT Southwestern Med. Ctr.*
- 8:00 W13 **357.17** Genomic changes of GAD67 regulatory genes in postmortem hippocampus of unaffected first-degree relatives of schizophrenias (SZ) and bipolar disorders (BD). G. SHENG*; A. J. COLEMAN; F. M. BENES. *McLean Hosp.*
- 9:00 W14 **357.18** Examining learning and memory plasticity in hippocampal subfields in schizophrenia. W. LI*; B. POTTS; J. PEREZ; S. GHOSE; C. TAMMINGA. *UT Southwestern Med. Ctr.*
- 10:00 W15 **357.19** Kv3.1 but not kv3.2 potassium channel subunits are reduced in schizophrenia and normalized with antipsychotic drugs. M. YANAGI*; R. JOHO; B. POTTS; S. SOUTHCOTT; J. PEREZ; J. LISTER; W. LI; C. MEYER; K. GLEASON; S. GHOSE; C. TAMMINGA. *UT Southwestern Med. Ctr.*

POSTER

357. Molecular Outcomes in Tissue from Schizophrenia

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 V17 **357.01** Proteomic analysis of palmitoylated proteins in human brain. J. TUCHOLSKI*; J. H. MEADOR-WOODRUFF. *Univ. Alabama-Birmingham.*
- 9:00 V18 **357.02** Alterations of the myristoylated, alanine-rich C kinase substrate (MARCKS) in frontal cortex in Schizophrenia. A. L. PINNER; J. H. MEADOR-WOODRUFF*; V. HAROUTUNIAN. *Univ. Alabama at Birmingham, Mount Sinai Sch. of Med.*
- 10:00 V19 **357.03** Abnormal gene expression in pyramidal neurons within specific layers of acc in schizophrenia. M. S. SIMMONS*; S. D. YATES; V. HAROUTUNIAN; R. MCCULLUMSMITH; J. H. MEADOR-WOODRUFF. *UAB, The Mt. Sinai Sch. of Med.*
- 11:00 V20 **357.04** Increased expression of Eph receptors and their ligands, ephrins, in anterior cingulate cortex in schizophrenia. J. B. DRUMMOND*; K. WOOD; V. HAROUTUNIAN; J. H. MEADOR-WOODRUFF. *Univ. Alabama, Birmingham, Mount Sinai Sch. of Med.*
- 8:00 W1 **357.05** Glycosylation of GABA(A) receptor subunits in schizophrenia. T. M. MUELLER*; V. HAROUTUNIAN; J. MEADOR-WOODRUFF. *UAB, Mount Sinai Sch. of Med.*

- 11:00 W16 **357.20** Altered expression of TET and APOBEC3A and 3C in the parietal cortex of psychotic patients. A. GUIDOTTI*. *Univ. Illinois Chicago*.
- 8:00 W17 **357.21** Testosterone regulation of dopamine-related mRNAs in the adolescent male rat nigrostriatal pathway. T. PURVES-TYSON*; S. OWENS; K. DOUBLE; C. SHANNON WEICKERT. *Neurosci. Res. Australia, Univ. of New South Wales, Neurosci. Res. Australia, Univ. of New South Wales*.
- 9:00 W18 **357.22** Increased density of GABAergic neurons in white matter of orbitofrontal cortex in people with schizophrenia. S. J. FUNG*; D. JOSHI; C. SHANNON WEICKERT. *Schizophrenia Res. Inst., Neurosci. Res. Australia, Univ. of New South Wales*.
- 10:00 W19 **357.23** Induction of NADPH-oxidase (Nox2) expression may help to identify heterogeneity in pathways to interneuron pathology in schizophrenia. V. S. CATTS*; S. J. FUNG; K. M. ALLEN; S. G. FILLMAN; C. SHANNON WEICKERT. *Neurosci. Res. Australia, Schizophrenia Res. Inst., Univ. of New South Wales*.

POSTER

358. Biomarkers in Major Depressive Disorder

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 W20 **358.01** Evidence for microglial activation in anterior cingulate cortical white matter of depressed suicides. S. G. TORRES PLATAS*; C. CRUCEANU; M. MAHEU; A. RACHALSKI; G. TURECKI; N. MECHAWAR. *Douglas Mental Hlth. Univ. Institute, McGill Univ., McGill Group for Suicide Studies, Douglas Mental Hlth. Univ. Institute, McGill Univ., Douglas Mental Hlth. Univ. Institute, McGill Univ.*
- 9:00 X1 **358.02** Decreased somatostatin across cortical layers in sgacc of post-mortem human subjects with major depression. A. C. TRIPP*; D. LEWIS; E. SIBILLE. *Univ. of Pittsburgh Med. Ctr.*
- 10:00 X2 **358.03** Brain area-specific impairments of AKT signaling in depression and suicide. T. F. FRANKE*; S. HSIUNG; K. LIU; M. BAKALIAN; S. P. ELLIS; H. TAMIR; V. ARANGO. *NYU Sch. of Med., NYSPI, Columbia Univ.*
- 11:00 X3 **358.04** Evidence for alterations of the glial syncytium in mood disorders. A. MEDINA*, MD; R. C. THOMPSON; S. BURKE; W. BUNNEY; R. M. MYERS; A. SCHATZBERG; J. BARCHAS; H. AKIL; S. J. WATSON. *Univ. Michigan, Univ. of California, HudsonAlpha Inst. for Biotech., Stanford Univ., Cornell Univ.*
- 8:00 X4 **358.05** Human olfactory bulb neurogenesis in medicated and unmedicated depressed suicides. M. E. MAHEU*; J. A. DEVORAK; M. A. DAVOLI; G. TURECKI; N. MECHAWAR. *Douglas Mental Hlth. Univ. Inst., McGill Univ., McGill Univ.*
- 9:00 X5 **358.06** • An analysis of choroid plexus gene expression in major depressive disorder. C. A. TURNER*; R. C. THOMPSON; W. E. BUNNEY; A. F. SCHATZBERG; J. D. BARCHAS; R. M. MYERS; H. AKIL; S. J. WATSON, Jr. *Univ. Michigan, Univ. of California-Irvine, Stanford Univ., Cornell Univ., HudsonAlpha Inst. for Biotech.*

- 10:00 X6 **358.07** • Hippocampal volume and cell number in major depressive disorder. C. A. STOCKMEIER*; J. SIMPSON; G. MAHAJAN; J. OVERHOLSER; L. DIETER; N. HERBST; G. JURJUS; W. MAY; G. RAJKOWSKA; J. COBB. *Univ. Mississippi Med. Ctr., Univ. Mississippi Med. Ctr., Case Western Reserve Univ., Cleveland VA Med. Ctr., Univ. Mississippi Med. Ctr.*
- 11:00 X7 **358.08** Hippocampus in depression: A postmortem stereological study of hippocampal volume and cell number. F. CHEN; J. R. NYENGAARD; R. ROSENBERG*; K. DORPH-PETERSEN. *Ctr. For Psychiatric Res., Stereology and Electron Microscopy Laboratory, Aarhus Univ., Ctr. for Stochastic Geometry and Advanced Bioimaging, Aarhus Univ., Dept. of Psychiatry, Univ. of Pittsburgh*.
- 8:00 X8 **358.09** Transcriptome meta-analysis in major depression. E. SIBILLE*; X. WANG; Y. DING; J. PARRISH; H. OH; J. GUILLLOUX; D. A. LEWIS; G. C. TSENG. *Univ. Pittsburgh, Univ. de Paris-Sud XI*.
- 9:00 X9 **358.10** Real-time quantitative polymerase chain reaction (qPCR) validation for genes identified by meta-analysis of gene array studies in major depression. J. N. PARRISH*; X. WANG; Y. DING; J. GUILLLOUX; D. LEWIS; G. TSENG; E. SIBILLE. *Univ. of Pittsburgh, Univ. of Paris Sud XI*.
- 10:00 X10 **358.11** Anatomical characterization of cocaine and amphetamine related transcript (CART) gene transcription in the human hypothalamus and its relationship to psychiatric disorders. D. M. KROLEWSKI*; A. MEDINA; R. M. MYERS; A. SCHATZBERG; W. E. BUNNEY; J. J. D. BARCHAS; H. AKIL; S. J. WATSON. *Univ. of Michigan, HudsonAlpha Inst., Stanford Univ., Univ. of California, Weil Med. Col. of Cornell Univ.*
- 11:00 X11 **358.12** Neurotransmitters in the human brain with focus on the galanin system in locus coeruleus and the dorsal raphe nucleus. S. S. BARDE*; E. LE MAITRE; M. PALKOVITS; R. DIAZ-HEIJTZ; T. HOKFELT. *Karolinska Institutet, Neuromorphological and Neuroendocrine Res. Lab. of the Semmelweis Univ. and the Hungarian Acad. of Sci.*
- 8:00 X12 **358.13** Increased serotonin transporter-immunoreactive fibers in the anterior thalamus in subjects with major depressive disorder are associated with BDNF and FKBP5 genes. W. L. BONKALE*; S. L. SACHSENMAIER; R. C. JAMROZ; P. B. HICKS; K. A. YOUNG. *Texas A & M Univ. Syst. HSC, Central Texas VA HSC, Texas A & M Univ. Syst. HSC*.
- 9:00 X13 **358.14** Computed tomography brain morphology and their polysomnographic correlates in depression: A comparative study of patients of major depression, their first degree relatives and normal controls. S. LAVANIA*; A. H. KHAN. *Sagar Lavania, G R D Med. college*.
- 10:00 X14 **358.15** • Distribution of Gs α in lipid raft fractions from human platelets indicates the presence of major depressive disorder. J. S. SPROUSE; A. JACKSON; R. J. DONATI; L. TONELLO; M. COCCHI; M. M. RASENICK*. *Pax Neurosci., Univ. Illinois Coll Med., Illinois Col. of Optometry, LDeS, Jesse Brown VAMC*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 X15 **358.16** Regional cortical thinning in unmedicated subjects with major depressive disorder: A surface-based morphometry study. J. SPÄTI; J. BRAKOWSKI; J. HÄNGGI*; N. DÖRIG; M. GROSSE HOLTFOORTH; L. JÄNCKE; E. SEIFRITZ; S. SPINELLI. *Preclinical Lab. for Translational Res. into Affective Disorders, Clin. for Affective Disorders and Gen. Psychiatry, Psychiatric Univ. Hosp. Zurich, Switzerland, Clin. for Affective Disorders and Gen. Psychiatry, Psychiatric Univ. Hosp. Zurich, Switzerland., Univ. of Zurich, Dept. of Psychology, Univ. of Zurich, Switzerland., Div. Neuropsychology, Inst. of Psychology, Univ. of Zurich, Switzerland, Preclinical Lab. for Translational Res. into Affective Disorders, Clin. for Affective Disorders and Gen. Psychiatry, Psychiatric Univ. Hosp. Zurich, Switzerland.*
- 8:00 X16 **358.17** • Glucocorticoid receptor translocation is attenuated in olfactory neuroepithelial cells of patients with major depressive disorder. K. BORGMANN-WINTER*; S. JEFFERSON; A. MANCEUR; R. RAY; J. STEFANO; C. KOVACSICS; J. ST. LOUIS; O. BERTON; C. HAHN. *Univ. Pennsylvania.*
- 9:00 X17 **358.18** White matter tract integrity of anterior limb of internal capsule in major depression and type 2 diabetes. A. ZHANG*; O. AJILORE; L. ZHAN; J. GADELKARIM; S. YANG; A. LEOW; A. KUMAR. *Univ. of Illinois At Chicago, UCLA, Univ. of Illinois Chicago.*
- 10:00 X18 **358.19** Resting-state functional connectivity identifies targets for right-sided rTMS treatment of depression. D. M. NIELSON*; M. V. KNOPP; W. J. MYSIW. *Ohio State Univ., Ohio State Univ., Ohio State Univ.*
- 11:00 Y1 **358.20** Serum biomarkers in depression: Clinical trials. B. SZEWCZYK; M. C. AUSTIN*; M. SOWA KUCMA; M. SIWEK; D. DUDEK; K. STYCZEN; L. WITKOWSKI; G. NOWAK. *Inst. of Pharmacol. Polish Acad. of Sci., Univ. Mississippi Med. Ctr., Inst. of Pharmacol. Polish Acad. of Sci., Jagiellonian Univ. Collegium Medicum, Jagiellonian Univ. Collegium Medicum.*
- 8:00 Y2 **358.21** • Enhanced processing of aversive stimuli in orbitofrontal cortex in healthy first-degree relatives to patients with depression. J. MACOVEANU*; U. KNORR; O. PAULSON; G. KNUDSEN; H. SIEBNER; L. KESSING. *Danish Res. Ctr. for Magnetic Resonance, Ctr. for psychiatry Rigshospitalet, Neurobio. Res. Unit Rigshospitalet.*
- 9:00 Y3 **358.22** • Cingulate network dynamics and depression: From glutamate dysfunction to deep brain stimulation. J. P. RAMÍREZ MAHALUF*; H. S. MAYBERG; A. COMPTE. *IDIBAPS, Dept. of Psychiatry, Dept. of Neurol., Emory Univ. Sch. of Med.*
- 10:00 Y4 **358.23** Dose- and time-dependent modulation of mRNA expression of neuroproliferative/neuroplastic transcription factors in organotypic hippocampal slice cultures by selective and non-selective serotonin reuptake inhibitors. E. M. VALDIZAN*; V. I. VARGAS; B. MARTÍNEZ-VILLAYANDRE; A. PAZOS. *UC Inst. De Biomedicina Y Biotecnología IBBTEC (UC-CSIC-IDICAN), Inst. de Salud Carlos III.*
- 11:00 Y5 **358.24** ▲ Upregulation of serotonin 1b receptor expression in the human lower brainstem in major depression. A. TYLE; N. S. AMILINENI; D. N. SIMPSON; E. G. JONES; W. E. BUNNEY; H. AKIL; S. J. WATSON; I. A. KERMAN*. *Univ. of Alabama at Birmingham, Univ. of Michigan, Univ. of California, Univ. of California.*
- 8:00 Y6 **358.25** PET imaging of serotonergic system in monkeys: effects of maternal separation, and long-term chronic fluoxetine treatment during development. S. SHRESTHA*; J. LIOW; E. NELSON; D. PINE; R. INNIS. *NIH, Natl. Inst. of Mental Hlth., NIH.*

POSTER

359. Anxiety Disorders: Experimental Therapeutics

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 Y7 **359.01** ▲ The lyophilisate of *M. tomentosa* induces anxiolytic like-effects in male rats through modulation of GABA-A receptor complex. M. I. SOLLOZO DUPONT*; E. ESTRADA-CAMARENA; M. CARRO-JUÁREZ; C. LÓPEZ-RUBALCAVA. *Ctr. de Investigación y de Estudios Avanzados del IPN (CINVESTAV-IPN), Inst. Nacional de Psiquiatría, Univ. Autónoma de Tlaxcala.*
- 9:00 Y8 **359.02** Comparative studies of novel 2-mercaptobenzimidazole derivatives neuroreceptor mechanism of action. E. RYASKINA*; V. MIKHAIL. *FSBI "ZAKUSOV INSTITUTE OF PHARMACOLOGY RAMS.*
- 10:00 Y9 **359.03** Short term administration of fluoxetine produces anxiolytic effects in female rats during late diestrus via a mechanism that elevates brain concentrations of the neuroactive steroid allopregnanolone but does not alter extracellular 5-HT. J. M. SANTOS; A. J. DEVALL; K. LI; R. SETH; J. P. FRY; J. W. HONOUR; M. L. BRANDAO; T. A. LOVICK*. *Univ. of Sao Paulo Ribeirao Preto, Univ. of Birmingham, Univ. Col. London, Univ. Col. Hosp.*
- 11:00 Y10 **359.04** • New herbal treatment for anxiety in comparison to SSRI: High efficacy with minimum side-effects. R. DORON*; N. EINAT; A. WIENER; M. REHAVI. *The Open Univ. & Hadassah Col., Tel-Aviv Jaffa Academic Col., Tel-Aviv Univ., The Open Univ.*
- 8:00 Y11 **359.05** Gastrin-releasing peptide attenuates the expression and reconsolidation of fear memory in rats: Implications for a novel treatment for post traumatic stress disorder. J. PRESTI TORRES; C. CAYER; J. S. JAMES; P. KENT; C. MACKAY; H. ANSIMAN; Z. MERALI*. *Univ. of Ottawa Inst. of Mental Hlth. Res., Univ. of Ottawa Inst. of Mental Hlth. Res., Carleton Univ., Univ. Ottawa Inst. of Mental Hlth. Res.*
- 9:00 Y12 **359.06** • ADX71743, a potent and selective negative allosteric modulator of metabotropic glutamate receptor 7 (mGluR7). M. KALINICHEV; M. ROUILLIER; F. GIRARD; I. ROYER-URIOS; B. BOURNIQUE; T. FINN; D. CHARVIN; E. LE POUL; V. MUTEL; S. POLI; R. LUTJENS*. *Addex Therapeut., Addex Pharma SA.*
- 10:00 Y13 **359.07** Anxiolytic activity of a neurokinin isolated from the venom of a social wasp *Polybia paulista*. M. R. MORTARI*; K. G. MOREIRA; C. A. MOURAO; L. L. COUTO; J. C. SILVA; L. C. DOS ANJOS; J. C. GONÇALVES; F. M. MEDEIROS; L. P. SILVA. *Univ. of Brasília, EMBRAPA.*
- 11:00 Y14 **359.08** Melatonin MT₂ receptor as potential new target for anxiety. G. GOBBI*; R. OCHOA-SANCHEZ; Q. RAINER; S. COMAI; G. SPADONI; A. BEDINI; S. RIVARA; F. FRASCHINI; M. MOR; G. TARZIA. *McGill Univ., Univ. of Urbino "Carlo Bo", Univ. of Parma, Univ. of Milan.*

- 8:00 Y15 **359.09** • Direct involvement of the ventral hippocampus in neuropeptide S-induced anxiolysis. J. DINE*; I. A. IONESCU; J. STEPAN; Y. YEN; F. HOLLSBOER; R. LANDGRAF; M. EDER; U. SCHMIDT. *Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry.*
- 9:00 Y16 **359.10** Chronic fluoxetine treatment prevents serotonin 1B receptor-induced deficits in delayed alternation. N. A. SHANAHAN*; N. JAMNIA; S. C. DULAWA. *Univ. Chicago, Wittenberg Univ.*

POSTER

360. Amphetamines and MDMA: Toxicity

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 Y17 **360.01** Impairment of withholding a “pre-potent” response in rats with METH-induced neurotoxicity. J. SON*; L. LEAVITT; K. KEEFE. *Univ. of Utah, Univ. of Utah.*
- 9:00 Y18 **360.02** • Regulation of Arc mRNA expression in striatal efferent neuron subpopulations and disruption of Arc transcription by METH-induced neurotoxicity. M. L. BARKER-HALISKI*; K. A. KEEFE. *Univ. of Utah.*
- 10:00 Y19 **360.03** Methamphetamine-induced neurotoxicity diminishes phasic dopamine activity in the striatum of freely moving rats. C. D. HOWARD*; K. A. KEEFE; D. P. DABERKOW; E. RAMSSON; P. A. GARRIS. *Illinois State Univ., Univ. of Utah, Eastern Washington Univ., Grand Valley State Univ.*
- 11:00 Y20 **360.04** L-DOPA treatment restores impaired basal ganglia gene expression in rats with methamphetamine-induced neurotoxicity. K. A. KEEFE*; E. D. PASTUZY; K. OLDENBURGER; B. PELTON; M. L. BARKER-HALISKI. *Univ. Utah, Univ. Utah, Philipps-Universität Marburg, Univ. Utah.*
- 8:00 Z1 **360.05** Partial methamphetamine-induced striatal dopamine loss results in a change in circuitry mediating Arc-regulated response reversal learning. E. D. PASTUZY; K. A. KEEFE. *Univ. of Utah.*
- 9:00 Z2 **360.06** Evaluating the role of neuronal nitric oxide synthase-containing striatal interneurons in methamphetamine-induced dopamine neurotoxicity. A. N. FRICKS-GLEASON*; K. A. KEEFE. *Univ. of Utah, Univ. of Utah.*
- 10:00 Z3 **360.07** Glial reactivity in repeated methamphetamine exposure. D. M. FRIEND*; K. A. KEEFE. *Univ. of Utah, Univ. of Utah.*
- 11:00 Z4 **360.08** Adrenergic receptors modulate methamphetamine-induced hyperthermia and dopaminergic neurotoxicity in mice. A. S. DARVESH*; W. J. GELDENHUYS; T. J. JONES; R. T. CARROLL; C. J. VAN DER SCHYF; D. E. DLUZEN. *Northeast Ohio Med. Univ. (NEOMED).*
- 8:00 Z5 **360.09** Methamphetamine self-administration increases neuroinflammatory responses in the rat brain. A. L. PERSONS*; S. M. KOUSIK; S. M. GRAVES; T. C. NAPIER. *Rush Univ. Med. Ctr.*
- 9:00 Z6 **360.10** Single high dose administration of methamphetamine increases dopamine transporter, dopamine D2 receptor, and parkin levels in rat striatum. R. TRAINI*; B. A. KILLINGER*; M. M. SHAH; A. MOSZCZYNSKA. *Wayne State Univ.*
- 10:00 Z7 **360.11** A neurotoxic regimen of methamphetamine induces vascular epithelial growth factor expression in the rat striatum. S. J. O'DELL*; E. HINGCO; A. BALL; J. MARSHALL. *Univ. of California, Irvine, Univ. of California, Irvine, Univ. of California, Irvine.*
- 11:00 Z8 **360.12** Methamphetamine elicits PERK-mediated endoplasmic reticulum transcriptional responses in NG108-15 cells. M. ROBSON*; C. R. MCCURDY; R. R. MATSUMOTO. *West Virginia Univ., Univ. of Mississippi.*
- 8:00 Z9 **360.13** Does amphetamine or environmentally induced hyperthermia damage to peripheral tissues and organs as well as lipopolysaccharide release produce neurotoxicity? J. F. BOWYER*; R. E. PATTON; K. M. TRANTER; J. P. HANIG; M. S. LEVI. *NCTR/FDA, FDA, CDER/FDA, FDA/CBER/OCBQ.*
- 9:00 Z10 **360.14** Testing the pleiotrophin knockout mouse model of amphetamine-induced neurotoxicity with positron emission tomography imaging of striatal [18F]FDG uptake. G. HERRADON*; M. SOTO-MONTENEGRO; M. DESCO; E. GRAMAGE. *Lab. Farmacología, Facultad De Farmacia, Univ. CEU San Pablo, Lab. de Imagen Médica. Unidad de Medicina y Cirugía Experimental. Hosp. Gen. Gregorio Marañón, CIBER de Salud Mental (CIBERSAM), Dept. de Bioingeniería e Ingeniería Aeroespacial, Univ. Carlos III.*
- 10:00 Z11 **360.15** Ammonia mediates methamphetamine-induced elevations in extracellular glutamate. L. E. HALPIN*; B. K. YAMAMOTO. *Univ. of Toledo.*
- 11:00 Z12 **360.16** Binge 3,4-methylenedioxymethamphetamine exposure reduces seizure susceptibility in rats. S. A. COLLINS*; G. GUDELSKY; B. K. YAMAMOTO. *Univ. of Toledo Med. Ctr., Univ. of Cincinnati.*
- 8:00 Z13 **360.17** Serial exposure to stress and methamphetamine results in persistent alterations in the structure and function of the blood-brain barrier: role of cyclooxygenase. N. A. NORTHROP*; B. K. YAMAMOTO. *Univ. of Toledo Col. of Med.*
- 9:00 Z14 **360.18** Serial exposure to chronic unpredictable stress and 3,4-methylenedioxymethamphetamine (MDMA) decreases serotonin neurons in the interfascicular region of the dorsal raphe nucleus. R. NATARAJAN*; B. K. YAMAMOTO. *Univ. of Toledo.*
- 10:00 Z15 **360.19** SERT deficiency ameliorates 3,4-methylenedioxymethamphetamine (ecstasy)-induced hyperthermia, hyperactivity and neurotoxicity in rats. L. E. LIZARRAGA ZAZUETA*; A. B. CHOLANIANS; J. M. HERNDON; L. S. SERRINE; T. J. MONKS. *Col. of Pharmacy, Univ. of Arizona.*
- 11:00 Z16 **360.20** Activation of corticotropin-releasing factor (CRF)-containing neurons in neurotoxicity induced by MDMA in rats. R. TAO*; Z. MA; M. RUDACILLE. *Florida Atlantic Univ.*
- 8:00 AA1 **360.21** Studies on the effect of hypothermia on (±) 3,4-methylenedioxymethamphetamine (mdma) metabolism and disposition in rats and mice. M. MUELLER*; C. MALDONADO-ADRIAN; J. YUAN; U. MCCANN; G. A. RICAURTE. *Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

361. Stress and Addiction

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 AA2 **361.01** The impact of restraint, odorant and footshock stress on inhibitory synaptic plasticity in the ventral tegmental area. N. M. GRAZIANE*; N. M. GRAZIANE*; J. A. KAUSER. *Brown Univ.*
- 9:00 AA3 **361.02** Long lasting changes in inhibitory synaptic plasticity in the ventral tegmental area after stress. A. M. POLTER*; J. A. KAUSER. *Brown Univ.*
- 10:00 AA4 **361.03** Early life stress and prenatal nicotine exposure alter pyramidal and granule neurons in CA1, CA3, and DG of the developing rat hippocampus. M. C. GONDRE-LEWIS*; H. WANG. *Howard Univ. Col. of Med.*
- 11:00 AA5 **361.04** Basolateral amygdala excitability is modulated by adenosinergic signaling and is altered in a rodent model of early life stress that engenders increases in anxiety-like behavior and ethanol consumption. A. R. RAU*; O. J. ARIWODOLA; A. M. CHAPPELL; E. CARTER; J. L. WEINER. *Wake Forest Sch. of Med.*
- 8:00 AA6 **361.05** The effect of acute stress on monoamine oxidase A expression in human neuronal and glial cells. C. UDEMGBA; S. JOHNSON; J. M. WATSON; J. M. SULLIVAN; S. L. SWILLEY; J. H. MEYER; X. OU*. *Univ. Mississippi Med. Ctr., Univ. of Toronto.*
- 9:00 AA7 **361.06** Dorsal raphe excitatory drive on vta dopamine neurons. H. WANG*; S. ZHANG; R. CACHOPE; J. CHEER; M. MORALES. *IRP/NIDA/NIH, Univ. of Maryland.*
- 10:00 AA8 **361.07** Effects of chronic stress on behavioral responses to methamphetamine in female rats. E. M. ANDERSON*; L. MATUSZEWICH. *Northern Illinois Univ.*
- 11:00 AA9 **361.08** • Scanner stress tobacco smoking plasma cortisol differences in mu opioid (OPRM1)G118 allele carriers. E. F. DOMINO*; L. NI; M. FUJITA-HIRASAWA. *Univ. Of Michigan.*
- 8:00 AA10 **361.09** Blockade of melanocortin 4 receptors prevents stress-induced reinstatement of extinguished nicotine-seeking behavior in rats. J. C. ALEXANDER*; X. QI; L. W. CORRIE; Y. JI; R. M. BAUZO; H. YAMADA; A. W. BRUIJNZEEL. *Univ. of Florida, Univ. of Florida.*
- 9:00 AA11 **361.10** Repeated stress enhanced the reacquisition of nicotine self-administration after withdrawal in nicotine-dependent rats. G. YU*; H. CHEN; B. SHARP. *Univ. of Tennessee Hlth. Sci. Ctr.*
- 10:00 AA12 **361.11** Nicotine self-administration modulates local glutamate and GABA transmission in prelimbic cortex in response to stress. S. GONG*; G. YU; B. SHARP. *Univ. Tennessee.*
- 11:00 AA13 **361.12** Involvement of MAO, CRF and dynorphin in the escalation of nicotine intake. A. COHEN*; G. KOOB; O. GEORGE. *TSRI.*
- 8:00 AA14 **361.13** A novel mouse model of alcohol seeking triggered by cognitive stress. S. L. QUICK*; J. R. TAYLOR. *Yale Univ. Sch. Med.*
- 9:00 AA15 **361.14** Alcohol after a stressor has deleterious effects on memory and mood in female rats. J. L. GOMEZ*; V. N. LUINE. *Hunter Col., The Grad. Ctr.*

- 10:00 AA16 **361.15** ▲ Protracted withdrawal from ethanol and the enhanced responsiveness to mild stress: Regulation via the dynorphin/kappa opioid receptor system. K. GILLET; E. HARSHBERGER; G. R. VALDEZ*. *Grand Valley State Univ.*
- 11:00 AA17 **361.16** Past stress reduces later stress-induced reinstatement of alcohol seeking in rats. M. L. LOGRIP*; E. P. ZORRILLA. *The Scripps Res. Inst.*
- 8:00 AA18 **361.17** Effects of ethanol intake and chronic mild stress on dopamine D2 receptor levels in the male mouse brain. F. DELIS*; C. ROMBOLA; R. BELLEZZA; D. GRANDY; G. WANG; N. D. VOLKOW; P. K. THANOS. *Dept. of Pharmacology, Univ. of Ioannina, Behavioral Neuropharm. and Neuroimaging Lab, Med. Department, Brookhaven Natl. Lab., Dept. of Physiol. and Pharmacology, Oregon Hlth. and Sci. Univ., Lab. of Neuroimaging, Natl. Inst. on Alcohol Abuse and Alcoholism, NIH, Dept. of Psychology, Stony Brook Univ.*
- 9:00 BB1 **361.18** The brain response to stress and alcohol speaks: Family history, personality profile and gender all matter. M. ABU SHAKRA*; A. DAGHER; J. PRUESSNER; M. LEYTON; R. O. PIHL. *McGill Univ., Montreal Neurolog. Inst. and Hosp., McGill Univ., McGill Univ., McGill Univ.*
- 10:00 BB2 **361.19** Repeated cycles of chronic intermittent ethanol exposure produce brain region and time dependent alterations in CRF, CRFR1, and CRFR2 mRNA gene expression in C57BL/6J mice. H. C. BECKER; T. L. DOREMUS-FITZWATER*; M. P. OVERSTREET. *Med. Univ. of South Carolina, Binghamton Univ.*
- 11:00 BB3 **361.20** Chronic alcohol exposure differentially alters corticotropin releasing factor receptor localization in male versus female rats. T. A. RETSON*; J. B. HOEK; E. VAN BOCKSTAELE. *Thomas Jefferson Univ., Thomas Jefferson Univ., Thomas Jefferson Univ.*
- 8:00 BB4 **361.21** Binge drinking alters corticotropin-releasing factor (CRF) cells in infralimbic cortex in male and female adolescent rats. Y. LU*; W. VARGAS; C. KARANIKAS; H. N. RICHARDSON. *Univ. of Massachusetts Amherst, Univ. of Massachusetts Amherst.*

POSTER

362. CNS Depressants, Neuropeptides, and Behavior

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 BB5 **362.01** • Acute lead acetate administration induces sedation in mice. R. A. MAGAJI*; M. G. MAGAJI; F. M. SULEMAN; O. D. DARE. *AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA, AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA.*
- 9:00 BB6 **362.02** Widespread fluctuations in cortical arousal correlate with single unit activity changes in nucleus gigantocellularis of the medulla. D. P. CALDERON*; A. PROEKT; A. HUDSON; D. PFAFF. *The Rockefeller Univ., UCLA, The Rockefeller Univ.*
- 10:00 BB7 **362.03** Brain dynamics in arousal pathways during emergence from isoflurane anesthesia. A. E. HUDSON; D. P. CALDERON; D. W. PFAFF; A. PROEKT*. *UCLA, The Rockefeller University, The Rockefeller Univ.*
- 11:00 BB8 **362.04** Involvement of magnoflorine in the psychopharmacological effects of Sinomeni Caulis et Rhizoma in mice. H. LEE*; T. WOO; S. YOON; J. CHEONG. *Uimyung Res. Inst. For Neurosci.*

- 8:00 BB9 **362.05** Discriminative stimulus effects of dry cleaning fluid (tetrachloroethylene) intoxication in mice. K. L. SHELTON*. *Virginia Commonwealth Univ.*
- 9:00 BB10 **362.06** Oxytocin in the medial prefrontal cortex reduces anxiety in female rats. S. SABIHI*; B. LEUNER. *The Ohio State Univ.*
- 10:00 BB11 **362.07** Increased sensitivity to the hyperphagic effect of Nociceptin/Orphanin FQ after caloric restriction in female rats. C. CIFANI*; M. V. MICIONI DI BONAVENTURA; M. UBALDI; M. MASSI; R. CICCOCIOPPO. *Univ. of Camerino.*
- 11:00 BB12 **362.08** • Attenuation of highly palatable food, heroin and cocaine seeking by GSK1521498, a novel μ -opioid receptor antagonist, compared to naltrexone. C. GIULIANO*; T. W. ROBBINS; P. J. NATHAN; E. T. BULLMORE; B. J. EVERITT. *Univ. of Cambridge, Behavioral and Clin. Neurosci. Inst., Dept. of Psychiatry, Univ. of Cambridge, Clin. Unit Cambridge and Academic DPU, GlaxoSmithKline R&D, Clin. Unit Cambridge.*
- 8:00 BB13 **362.09** Peripheral delta and mu opioid receptors contribute to pain control and opioid-induced analgesia as assessed by Nav1.8-Cre conditional knockout. C. GAVERIAUX-RUFF*; C. NOZAKI; J. N. WOOD; B. L. KIEFFER. *IGBMC GIE CERBM, IGBMC Univ. de Strasbourg/CNRS/INSERM, IGBMC, Univ. Col. London, IGBMC GIE CERBM.*
- 9:00 BB14 **362.10** • ▲ Intranasal oxytocin restrictively improves emotion recognition for men with autism spectrum disorders. T. YAMADA*; H. OHTA; H. WATANABE; M. TANI; C. KANAI; T. OHNO; Y. TAKAYAMA; R. HASHIMOTO; A. IWANAMI; N. KATO. *Karasuyama Hosp. / Showa Univ. Sch. of Med.*
- 10:00 BB15 **362.11** • The role of Melanocortin 4 Receptor (MC4R) signaling in compulsive grooming. J. K. BRITT*; P. XU; B. A. GREUTER; B. LIM; M. LUTTER; A. A. PIEPER. *Univ. of Texas Southwestern Med. Ctr., Univ. of Texas Southwestern Med. Ctr., Stanford Univ., Univ. of Texas Southwestern Med. Ctr.*
- 11:00 BB16 **362.12** Depression/anxiety phenotyping of neuropeptide FF receptor type 2 transgenic mice. Y. LIN*; C. YANG; Y. CHEN; H. LI; J. CHEN. *Chang Gung Univ., Oregon Inst. of Technol.*
- 8:00 BB17 **362.13** Involvement of central CRF receptors in the anxiogenic, but not the anorectic effects of PACAP. R. DORE*; A. IEMOLO; P. COTTONE; V. SABINO. *Boston Univ.*
- 9:00 BB18 **362.14** Dark-phase hypoactivity phenotype of relaxin-3 and rxfp3 ko mice: Non-photic regulation of arousal and circadian rhythms? I. T. HOSKEN*; C. M. SMITH; A. L. GUNDLACH. *Florey Neurosci. Inst., Univ. of Melbourne.*
- 10:00 BB19 **362.15** Analyses of the facilitatory effect of orexin on eating and masticatory muscle activity in rats. T. TSUJI*; T. YAMAMOTO; S. TANAKA; S. BAKHSHISHAYAN; M. KOGO. *Kio Univ., Osaka Univ., Osaka Police Hosp.*
- 11:00 BB20 **362.16** Biased agonism of delta opioid receptors selective ligands *in vivo*. R. M. VAN RIJN*; J. N. DEFRIEL; J. L. WHISTLER. *Ernest Gallo Clin. and Res. Ctr., Ernest Gallo Clin. and Res. Ctr.*
- 8:00 CC1 **362.17** ▲ Neuroprotection of neurohypophyseal hormones on pentylenetetrazol-induced seizures in zebrafish. A. DONZELLI*; D. BRAIDA; R. MARTUCCI; L. PONZONI; A. PAULETTI; M. SALA. *Univ. Degli Studi Di Milano, CNR Inst. of Neurosci.*
- 9:00 CC2 **362.18** The galanin receptor agonist galnon mitigates the stimulatory effect of cocaine on locomotion. N. R. SCIOLINO*; J. L. GROVES-CHAPMAN; K. G. FREEMAN; G. L. EDWARDS; D. WEINSHENKER; P. V. HOLMES. *Univ. of Georgia, Univ. of Georgia, Emory.*
- 10:00 CC3 **362.19** Topographical differences in orexin neuronal activation: Binge-eating prone versus binge-eating resistant rats. K. A. RICHARDSON*. *Howard Univ. Col. of Med.*
- 11:00 CC4 **362.20** Central administration of the NPY2 antagonist BIIIE0246 modulates sexual behavior in the male rat. K. M. RAMOS-PRATTS*; J. L. BARRETO-ESTRADA. *Univ. of Puerto Rico Med. Sci. Campus.*
- 8:00 CC5 **362.21** Developmental changes in embryonic hypothalamic neurons during prenatal fat exposure. K. POON*; J. R. BARSON; S. E. FAGAN; S. F. LEIBOWITZ. *The Rockefeller Univ.*
- 9:00 CC6 **362.22** *In vivo* characterization of the dual orexin receptor antagonist DORA-12. L. YAO; A. RAMIREZ; S. HUSZAR; S. E. BROWNE*; C. J. WINROW; S. D. KUDUK; P. COLEMAN; R. HINCHLIFFE; S. RITTLE; A. GOTTER; S. FOX; T. MCDONALD; S. TYE; P. TANNENBAUM; J. USLANER; J. BRUNNER; S. GARSON; P. HUTSON; J. J. RENGIER; R. HODGSON. *Merck Res. Labs, Merck Res. Labs.*

POSTER

363. Cochlea: Cellular Properties

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 CC7 **363.01** An improved micro-dissection technique for collection of the cochlear hair cell tissue for molecular analyses. B. WANG*; B. HU. *Univ. At Buffalo, SUNY, Gen. Hosp. of PLA.*
- 9:00 CC8 **363.02** • Distribution of Calcium binding proteins in the human cochlear nucleus with aging. T. ROY*; S. SHARMA; D. BHARDWAJ; A. THAKAR; T. NAG. *All India Inst. Med. Sci., All India Inst. Med. Sci., All India Inst. of Med. Sci., All India Inst. of Med. Sci., All India Inst. of Med. Sci.*
- 10:00 CC9 **363.03** Activation of metabotropic glutamate receptors is sufficient to prevent deafness-induced changes in chick cochlear nucleus neurons. K. L. CARZOLI*; R. L. HYSOON. *Florida State Univ., Florida State Univ.*
- 11:00 CC10 **363.04** • Sodium-Potassium-Chloride-Cotransporter 1 (NKCC1) expression declines with age in the CBA/CaJ mouse cochlea. X. ZHU; J. P. WALTON; B. DING; R. D. FRISINA*. *Univ. of South Florida, Univ. of South Florida.*
- 8:00 CC11 **363.05** Auditory-vestibular interactions in the dorsal cochlear nucleus. E. WIGDERSON*; I. NELKEN; Y. YAROM. *Hebrew Univ., Hebrew Univ.*
- 9:00 CC12 **363.06** Infrared neural stimulation for cochlear implants: Radiant energy on targeted spiral ganglion neurons. S. RAJGURU*; A. MATIC; S. R. STOCK; C. RICHTER. *Univ. of Miami, Univ. of Miami, Northwestern Univ., Northwestern Univ., Northwestern Univ.*
- 10:00 CC13 **363.07** Targeting the somatostatin receptors as a therapeutic approach for the preservation and protection of the mammalian cochlea from excitotoxicity. V. RADOJEVIC*; Y. BRAND; S. LEVANO; D. BODMER. *Univ. Hospital, Clin. For Otorhinolaryngology, Dept. of Biomedicine.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 CC14 **363.08** Decellularized cochlea as a scaffold for stem cell regeneration. P. A. SANTI*; S. JOHNSON. *Univ. Minnesota Med. Sch.*
- 8:00 CC15 **363.09** Structure of the human dorsal cochlear nucleus. J. S. BAIZER*; N. I. WEINSTOCK; N. A. PAOLONE; J. NG; S. F. WITELSON. *Univ. at Buffalo, McMaster Univ.*
- 9:00 CC16 **363.10** The prevalence of mode-locked spike trains in the responses of cochlear nucleus neurons to periodic stimuli. C. SCHOLE*; W. S. RHODE; A. R. PALMER; S. COOMBES; C. J. SUMNER. *MRC Inst. of Hearing Res., Univ. of Wisconsin, Univ. of Nottingham.*
- 10:00 CC17 **363.11** A mutation in Ca2+ binding protein 2, expressed in cochlear inner hair cells, causes autosomal recessive hearing impairment. I. SCHRAUWEN*; S. HELFMANN; A. INAGAKI; F. WOLK; M. A. TABATABAIEFAR; M. M. PICHER; M. SOMMEN; C. ZAZO SECO; H. KREMER; A. DHEEDENE; C. CLAES; E. FRANSEN; M. H. CHALESHTORI; P. COUCKE; A. LEE; T. MOSER; G. VAN CAMP. *Univ. of Antwerp, The Translational Genomics Res. Inst. (TGen), Univ. of Göttingen Sch. of Med., Univ. of Iowa, Ahvaz Jundishapur Univ. of Med. Sci., Radboud Univ. Nijmegen Med. Ctr., Univ. of Ghent, Shahrekord Univ. of Med. Sci.*

POSTER

364. Auditory System: Networks

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 CC18 **364.01** Local field potential activity in primate A1 during auditory delayed matching-to-sample and operant conditioning task performance. B. N. ROSSI*; J. BIGELOW; A. POREMBA. *Univ. of Iowa.*
- 9:00 CC19 **364.02** Spatio-temporal dynamics of electrocorticographic (ECoG) activity during presentation of natural auditory stimuli. A. DE PESTERS*; P. BRUNNER; A. GUNDUZ; C. MEHRING; G. SCHALK. *Wadsworth Ctr., Albany Med. Col., Graz Univ. of Technol., Univ. of Florida, Imperial Col., Washington Univ. Sch. of Med., Rensselaer Polytechnic Inst., State Univ. of New York at Albany.*
- 10:00 CC20 **364.03** Induced c-Fos expression in the rat auditory pathway and limbic system following 22-kHz conspecific vocalization. L. OUDA*; J. SYKA. *Inst. of Exptl. Medicine, Acad. of Sci. of the Czech Republic.*
- 11:00 DD1 **364.04** Descending modulation of auditory sensitivity in the frog midbrain. A. PONNATH; H. E. FARRIS*. *Louisiana State Univ. HSC.*
- 8:00 DD2 **364.05** Memory for spectrotemporal features of auditory stimuli are represented in human hippocampus and planum temporale. S. KUMAR*; H. M. BONNICI; S. TEKİ; T. R. AGUS; D. PRESSNITZER; E. A. MAGUIRE; T. D. GRIFFITHS. *Newcastle Univ., Univ. Col. London, Ecole normale supérieure.*
- 9:00 DD3 **364.06** Evaluating the necessity of norepinephrine for experience-dependent plasticity during auditory cortical development. K. N. SHEPARD*; L. C. LILES; D. WEINSHENKER; R. C. LIU. *Emory Univ., Emory Univ.*
- 10:00 DD4 **364.07** fMRI correlates of auditory regularities in awake and anesthetized monkeys. L. UHRIG*; O. JOLY; D. JANSSEN; N. TANI; T. A. BEKINSCHTEIN; L. NACCACHE; S. DEHAENE; B. JARRAYA. *Inserm Avenir Bettencourt-Schueller, Neurospin CEA, Inserm Avenir Bettencourt-Schueller, Cognition and Brain Sci. Unit, Med. Res. Council, AP-HP, Groupe hospitalier Pitié-Salpêtrière, ICM Res. Ctr., INSERM Unicog, Collège de France, Neuromodulation unit, Dept. of Neurosurgery, Foch Hospital, Univ. of Versailles Saint-Quentin.*
- 11:00 DD5 **364.08** Modeling the mismatch negativity (MMN) in primary auditory cortex of the awake monkey. Y. I. FISHMAN*; M. STEINSCHNEIDER. *Albert Einstein Col. Med.*
- 8:00 DD6 **364.09** The spatial distribution of auditory attention after early visual deprivation. E. LERENS; L. RENIER; A. G. DE VOLDER*. *Catholique Univ. Louvain (UCL).*
- 9:00 DD7 **364.10** Neural circuits underlying stimulus-specific adaptation in mouse auditory cortex. I. CHEN*; F. HELMCHEN; H. LÜTCKE. *Brain Res. Institute, Univ. of Zurich.*
- 10:00 DD8 **364.11** Involvement of insular auditory cortex in negative affective ultrasonic vocal communication in rats. A. M. BENISON*; Z. SMITH; D. S. BARTH. *Univ. of Colorado.*
- 11:00 DD9 **364.12** Modified areal cartography in the cat auditory cortex following early and late onset deafness. C. WONG*; N. CHABOT; M. A. KOK; S. G. LOMBER. *The Univ. of Western Ontario, The Univ. of Western Ontario, The Univ. of Western Ontario.*
- 8:00 DD10 **364.13** Optogenetic stimulation of an inhibitory network enhances feedforward connectivity in auditory cortex. L. S. HAMILTON*; J. SOHL-DICKSTEIN; A. G. HUTH; S. BAO. *Univ. of California, Berkeley.*
- 9:00 DD11 **364.14** Biophysically-based models of local fields and ephaptic coupling in the auditory brain stem. J. H. GOLDWYN*; P. X. JORIS; M. MCLAUGHLIN; E. VERSCHOOTEN; J. RINZEL. *New York Univ., New York Univ., Univ. of Leuven, Univ. of California, Irvine.*
- 10:00 DD12 **364.15** Cultural applications of an auditory neurodynamics model. N. K. FLAIG*; J. KIM; E. W. LARGE; C. L. KRUMHANS. *Florida Atlantic Univ., Cornell Univ.*
- 11:00 DD13 **364.16** Our brains hear the world in the same way. C. M. POTES*; P. BRUNNER; A. GUNDUZ; G. SCHALK. *Wadsworth Center, NYS Dept. of Hlth., Univ. of Texas at El Paso, Albany Med. Col., Graz Univ. of Technol., Univ. of Florida, Wadsworth Ctr., Washington Univ. Sch. of Med., Rensselaer Polytechnic Inst.*
- 8:00 DD14 **364.17** Electrocorticographic (ECoG) activity characterizes the neural processes that realize visuomotor function in humans. W. G. COON*; A. GUNDUZ; P. BRUNNER; G. SCHALK. *Wadsworth Ctr., Univ. at Albany, Univ. of Florida, Albany Med. Col., Graz Univ. of Technol., Washington Univ., Rensselaer Polytechnic Inst.*
- 9:00 DD15 **364.18** Vesicular GABA transporter expression in the auditory cortex of macaque monkeys. L. A. DE LA MOTHE*; M. E. CAPOZZI; T. A. HACKETT. *Tennessee State Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*
- 10:00 DD16 **364.19** Population coding of sound level in primary auditory cortex. W. SUN; E. MARONGELLI; A. FERDOASH; D. L. BARBOUR*. *Washington Univ.*

- 11:00 DD17 **364.20** Encoding of simple and complex sounds by local field potentials in primate auditory cortex. J. BIGELOW*; B. ROSSI; I. ZDILAR; A. POREMBA. *Univ. of Iowa, Univ. of Iowa.*
- 8:00 DD18 **364.21** Intracellular recordings from the auditory cortex of awake, unrestrained mice. A. NELSON*; I. YOON; K. HAMAGUCHI; R. MOONEY. *Duke Univ.*
- 9:00 DD19 **364.22** • Projection class specificity of local microcircuit architecture in auditory cortex. J. MIDDLETON; C. ANDERSON; G. SHEPHERD; T. TZOUNOPOULOS*. *Univ. of Pittsburgh, Northwestern Univ.*
- 10:00 DD20 **364.23** Frequency selectivity throughout the auditory system. T. T. WELLS*; C. J. SUMNER. *MRC Inst. of Hearing Res.*
- 11:00 EE1 **364.24** Auditory steady-state responses in the acoustic-limbic circuitry: Lateral amygdala study. A. V. LOCKMANN*; L. B. FELIX; M. F. D. MORAES. *Univ. Federal De Minas Gerais, Univ. Federal de Viçosa, Univ. Federal De Minas Gerais.*
- 8:00 EE2 **364.25** Generation of intensity selectivity in the central auditory pathway. M. ZHOU*; H. W. TAO; L. I. ZHANG. *USC.*

POSTER

365. Auditory System: Modulation

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 EE3 **365.01** Modulation of auditory responses by behavioral state in mouse auditory cortex. A. G. GUSEV*; C. LIU; J. WEKSELBLATT; M. WEHR. *Univ. of Oregon.*
- 9:00 EE4 **365.02** Early social experience shapes tuning for vocalizations in the songbird auditory forebrain. J. M. MOORE*; S. M. N. WOOLLEY. *Columbia Univ.*
- 10:00 EE5 **365.03** Age-related changes in auditory processing of speech-like stimuli assessed at the population and cellular levels. A. PARTHASARATHY; E. L. BARTLETT*. *Purdue Univ., Purdue Univ.*
- 11:00 EE6 **365.04** Inhibitory shaping of binaural response properties in rat auditory cortex. M. KYWERIGA*; W. STEWART; C. CAHILL; M. S. WEHR. *Univ. of Oregon.*
- 8:00 EE7 **365.05** Developmental changes in intra-laminar auditory cortical connectivity. S. BANDYOPADHYAY; S. VISWANATHAN*; R. DENG; P. KANOLD. *Univ. of Maryland, HHMI.*
- 9:00 EE8 **365.06** State-dependent information processing in auditory thalamocortical network. S. SAKATA*. *SIPBS, Univ. of Strathclyde.*
- 10:00 EE9 **365.07** • Mouse insular auditory field receives projections from the ventral division of the medial geniculate body. M. TAKEMOTO; M. NISHIMURA; W. SONG*. *Grad Sch. of Life Sci.*
- 11:00 EE10 **365.08** Neurons in primary auditory cortex and the medial lateral belt auditory area of anaesthetized marmosets are sensitive to interaural level differences for natural vocalizations. L. L. LUI*; V. DUBAJ; M. G. P. ROSA; R. RAJAN. *Monash Univ.*
- 8:00 EE11 **365.09** Time course of contrast gain control in ferret auditory cortex. B. WILLMORE*; N. C. RABINOWITZ; J. W. H. SCHNUPP; A. J. KING. *Oxford Univ., New York Univ.*

- 9:00 EE12 **365.10** Perineuronal nets and GABAergic cells in guinea pig inferior colliculus. N. L. FOSTER*; J. G. MELLOTT; C. S. SOWICK; B. R. SCHOFIELD. *Northeast Ohio Med. Univ.*
- 10:00 EE13 **365.11** Auditory attention during a natural cocktail party in common marmosets. C. R. TOARMINO*; C. T. MILLER. *UC San Diego.*
- 11:00 EE14 **365.12** Changing the sensory representation of pure tones by attention in primary auditory cortex. M. N. O'CONNELL*; A. FALCHIER; C. E. SCHROEDER; P. LAKATOS. *Nathan Kline Instit, City Col. CUNY, Columbia Univ. Col. of Physicians and Surgeons.*
- 8:00 EE15 **365.13** Generation of spike latency tuning by thalamocortical circuits in auditory cortex. L. MESIK*; Y. ZHOU; H. TAO; L. ZHANG. *Zilkha Neurogenetic Inst., USC, USC, USC.*
- 9:00 EE16 **365.14** Effects of cooling of the auditory cortex on neuronal activity in the inferior colliculus in rats. J. POPELAR*; D. SUTA; M. JILEK; K. PYSANENKO; T. CHUMAK; J. SYKA. *Inst. of Exptl. Med. AS CR.*
- 10:00 EE17 **365.15** Responses of marmoset frontal cortex neurons during a natural vocal behavior: Antiphonal calling. A. W. THOMAS*; K. GORDON; L. DE LA MOTHE; C. MILLER. *UC San Diego, Tennessee State Univ.*
- 11:00 EE18 **365.16** Bayesian modeling of human performance in an auditory-categorization task. A. M. GIFFORD*; Y. E. COHEN; A. STOCKER. *Univ. of Pennsylvania.*
- 8:00 EE19 **365.17** Context affects the responses of marmoset frontal cortex neurons during natural vocal communication. C. T. MILLER*; A. THOMAS; K. GORDON; L. DE LA MOTHE. *UCSD, Tennessee State Univ.*
- 9:00 EE20 **365.18** Frequency-specific connectivity in the macaque auditory cortex. B. H. SCOTT*; P. A. LECCESE; M. FUKUSHIMA; M. MULLARKEY; K. S. SALEEM; M. MISHKIN; R. C. SAUNDERS. *NIMH.*
- 10:00 FF1 **365.19** Electron microscopic identification of auditory cortical synapses onto GABAergic and non-GABAergic cells in the inferior colliculus. K. T. NAKAMOTO*; J. G. MELLOTT; J. KILLIUS; M. E. STOREY-WORKLEY; C. S. SOWICK; B. R. SCHOFIELD. *Northeast Ohio Med. Univ.*
- 11:00 FF2 **365.20** A specific deficit in central auditory processing in mouse model of developmental and autoimmune disorders. L. A. ANDERSON; J. MATTLEY; J. F. LINDEN*. *Univ. Col. London, Univ. Col. London.*

POSTER

366. Auditory System: Representation, Organization and Plasticity

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 FF3 **366.01** Change-related and Off response of P50M. M. NISHIHARA*; K. INUI; T. USHIDA; R. KAKIGI. *Aichi Med. Univ., Natl. Inst. for Physiological Sci., Aichi Med. Univ.*
- 9:00 FF4 **366.02** Optogenetic manipulation of the songbird premotor nucleus HVC. T. F. ROBERTS*; M. MURUGAN; K. A. TSCHIDA; R. MOONEY. *Duke Univ. Med. Ctr.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 FF5 **366.03** Behavioral paradigm to measure the lower limit of pitch for complex harmonic sounds in macaques. O. JOLY*; S. BAUMANN; C. POIRIER; A. THIELE; T. D. GRIFFITHS. *Inst. of Neurosci.*
- 11:00 FF6 **366.04** Independent component analysis of event-related EEG: Implications for the sensorimotor mu rhythm in speech processing. A. BOWERS; T. SALTUKLAROGU*; A. HARKRIDER. *Univ. of Arkansas, Univ. Tennessee.*
- 8:00 FF7 **366.05** Alpha-band activity reflects trade-off between temporal preparedness and cognitive load for speech in noise. A. WILSCH*; M. J. HENRY; B. MAESS; J. OBLESER. *Max Planck Inst. For Human Cognitive and Brain Sci.*
- 9:00 FF8 **366.06** Multiple gamma rhythms and interlaminar synchrony in A1. S. LEE*; M. AINSWORTH; M. WHITTINGTON; N. KOPELL. *Boston Univ., Univ. of Newcastle Univ.*
- 10:00 FF9 **366.07** Auditory activity on two separate time scales in the SC of an echolocating bat. M. J. WOHLGEMUTH*, III; C. F. MOSS. *Univ. of Maryland, Univ. of Maryland.*
- 11:00 FF10 **366.08** A quantitative analysis of the dynamics of acoustic communication during the courtship ritual of *Drosophila melanogaster*. P. COEN*; A. J. WEINSTEIN; Y. DENG; M. MURTHY. *Princeton Univ., Princeton Univ., Princeton Univ.*
- 8:00 FF11 **366.09** MEG measures of sentence comprehension. R. E. MILLMAN*; G. PRENDERGAST. *York Neuroimaging Centre, Univ. of York.*
- 9:00 FF12 **366.10** Binaural spectral processing in mouse inferior colliculus. X. BIE*; D. L. OLIVER. *Univ. of Connecticut Hlth. Ctr.*
- 10:00 FF13 **366.11** Population calcium imaging of learned vocal representations in the song nucleus HVC. W. PEH*; T. F. ROBERTS; R. MOONEY. *Duke Univ.*
- 11:00 FF14 **366.12** Auditory receptive field estimation with bandpass noise. N. M. LEDBETTER*; H. SUN; E. Y. WALKER; D. L. BARBOUR. *Washington Univ.*
- 8:00 FF15 **366.13** Robust speech recognition using sequential spike code. P. B. SCHAFER; D. Z. JIN*. *Pennsylvania State Univ.*
- 9:00 FF16 **366.14** Functional organization of higher-order auditory areas in human temporal lobe. P. HULLETT*; N. MESGARANI; C. SCHREINER; E. CHANG. *Univ. of California, San Francisco, UCSF, UCSF, UCSF.*
- 10:00 FF17 **366.15** Tuning to interaural time difference in human auditory cortex. S. A. MCLAUGHLIN*; G. C. STECKER. *Univ. of Washington.*
- 11:00 FF18 **366.16** Neural dynamics of novel auditory-motor map learning. A. B. HERMAN*; D. HARRELL; J. HOUDE; S. NAGARAJAN. *UCSF, Florida Atlantic Univ., UCSF.*
- 8:00 FF19 **366.17** Organization of human auditory cortex: Response patterns elicited by simple and complex sounds on Heschl's gyrus and posterior lateral superior temporal gyrus. M. STEINSCHNEIDER*; K. NOURSKI; H. OYA; H. KAWASAKI; M. HOWARD. *Albert Einstein Med. Col., Univ. of Iowa.*
- 9:00 FF20 **366.18** Visual influences on neurons in voice-sensitive cortex. C. PERRODIN*; C. KAYSER; N. K. LOGOTHETIS; C. I. PETKOV. *Max Planck Inst. for Biol. Cybernetics, Brain and Mind Institute, Western Univ., Univ. of Manchester, Newcastle Univ.*
- 10:00 GG1 **366.19** Laminar differences in functional organization of the mouse primary auditory cortex. D. E. WINKOWSKI*; P. O. KANOLD. *Univ. Maryland, Univ. Maryland.*
- 11:00 GG2 **366.20** Parcellating human and monkey primary auditory cortex with fMRI pattern classification. C. I. PETKOV*; K. KRUMBHOLZ; P. DECHENT; D. VOIT; M. SCHOENWIESNER. *Newcastle Univ., MRC Inst. of Hearing Res., Univ. Med. Goettingen, Biomed. NMR Res. GmbH, Max-Planck-Institute for Biophysical Chemistry, Univ. of Montreal.*
- 8:00 GG3 **366.21** Detection of tone in noise in rat auditory cortex. I. NELKEN*; I. HERSHENHOREN. *Hebrew Univ.*
- 9:00 GG4 **366.22** Neuronal representation of temporal regularity associated with pitch perception in macaque auditory cortex. Y. KIKUCHI*; S. KUMAR; S. BAUMANN; T. OVERATH; T. D. GRIFFITHS; C. I. PETKOV. *Newcastle Univ. Med. Sch., Wellcome Trust Ctr. for Neuroimaging, Univ. Col. London, Ear institute, Univ. Col. London.*
- 10:00 GG5 **366.23** The representation of vocalizations in the mouse auditory system. J. A. GARCIA-LAZARO; N. A. LESICA*. *UCL.*
- 11:00 GG6 **366.24** Inhibitory synaptic plasticity creates unique stimulus representations in multilayered feed forward networks. T. VOGELS*; W. GERSTNER. *EPFL - LCN, EPFL.*
- 8:00 GG7 **366.25** Organization of human auditory cortex: Response latencies on Heschl's gyrus and posterior lateral superior temporal gyrus. K. V. NOURSKI*; M. STEINSCHNEIDER; H. OYA; H. KAWASAKI; M. A. HOWARD, III. *The Univ. of Iowa, Albert Einstein Col. of Med.*

POSTER

367. Auditory System: Responses and Modulation

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 GG8 **367.01** Nonselective response enhancement in A1 is prevented by scopolamine. E. CARPENTER-HYLAND*; A. VAZDARJANOVA; D. BLAKE. *Georgia Hlth. Sci. Univ.*
- 9:00 GG9 **367.02** Single-unit responses to amplitude modulated tones and noise in the auditory cortex of aged macaque monkeys. J. A. OVERTON*; G. H. RECANZONE. *UC Davis, Ctr. for Neurosci.*
- 10:00 GG10 **367.03** Plasticity of mature thalamocortical synapses is gated by adenosine dependent inhibition of glutamate release and released by muscarinic receptor activation. J. A. BLUNDON*; I. BAYAZITOV; R. CHASSEN; S. S. ZAKHARENKO. *St Jude Children's Res. Hosp.*
- 11:00 GG11 **367.04** Dual cholinergic actions on transmission in auditory granule cells. D. B. YAEGER*; L. O. TRUSSELL. *Oregon Hlth. and Sci. Univ., Oregon Hlth. and Sci. Univ.*
- 8:00 GG12 **367.05** Tectothalamic inhibitory neurons in the inferior colliculus receive converged axosomatic excitatory inputs from multiple sources. T. ITO*; D. L. OLIVER. *Univ. of Fukui, Univ. of Fukui, UConn Hlth. Ctr.*

- 9:00 GG13 **367.06** Topographical recordings of speech auditory brainstem responses to an ecological /ba/ stimulus. L. BELLIER*; R. LABOISSIÈRE; M. MAZZUCA; A. CACLIN; H. THAI-VAN. *Lyon Neurosci. Res. Ctr., Edouard Herriot Hosp.*
- 10:00 GG14 **367.07** Sensory modulation in misophonia. M. EDELSTEIN*; D. BRANG; V. S. RAMACHANDRAN. *UCSD.*
- 11:00 GG15 **367.08** Adaptation is a key mechanism for mismatch response generation in rats as revealed using dynamic causal modeling. F. JUNG*; A. O. DIACONESCU; H. ENDEPOL; R. GRAF; M. TITTEMEYER; K. E. STEPHAN. *Max Planck Inst. For Neurolog. Res., Inst. for Biomed. Engineering, Univ. of Zürich & ETH Zürich.*
- 8:00 GG16 **367.09** ▲ Inhibition of atrial natriuretic peptide degradation improves hearing. A. B. CLARKE; G. J. TRACHTE; J. L. FITZAKERLEY*. *Univ. Minnesota Med. Sch.*
- 9:00 GG17 **367.10** ● Aldosterone increases the protein expression of Na-K-Cl cotransporter (NKCC1) via an ubiquitination mechanism. B. DING; R. D. FRISINA; X. ZHU; D. FRISINA*, SR; J. P. WALTON. *Univ. of South Florida, Univ. of South Florida, Univ. of South Florida.*
- 10:00 GG18 **367.11** Spatial and nonspatial processing in the primary auditory cortex of awake behaving macaque monkeys. C. NG*; D. GRAY; J. OVERTON; G. RECANZONE. *Univ. of California.*
- 11:00 GG19 **367.12** Ottos Abstract. O. ALBRECHT; F. MAYER; A. KLUG*. *Univ. of Colorado Sch. of Med., Univ. of Colorado.*
- 8:00 GG20 **367.13** How short can a vowel be and still be recognized? A comparison between cortical neurons and human listeners. B. GOURÉVITCH*; C. SUIED; D. PRESSNITZER; F. OCCELLI; J. EDELINE. *CNPS Lab, UMR8195 CNRS, Univ. Paris-Sud, Equipe Audition, DEC, Ecole normale supérieure.*
- 9:00 HH1 **367.14** Dopamine modulation of sensory representations in prefrontal cortex. I. CARCEA*; N. ZAIKA; R. C. FROEMKE. *NYU Med. Ctr., NYU Med. Ctr., NYU Med. Ctr.*
- 10:00 HH2 **367.15** Nicotinic activation and sound evoked neural activity converge to elevate ERK activation in auditory cortex. H. D. KAWAI; M. LA; H. KANG; Y. HASHIMOTO; R. LAZAR; R. METHERATE*. *Soka Univ., Univ. California, Irvine.*
- 11:00 HH3 **367.16** Diffuse expression of oncomodulin modulates intracellular calcium levels. D. D. SIMMONS*; S. K. DEVANA. *UCLA.*
- 8:00 HH4 **367.17** Cortical process of compensatory and following vocal responses to pitch errors in voice auditory feedback. H. LIU*; Z. CHEN; W. LI; P. LIU. *Dept. Rehabil. Medicine, The First Affiliated Hospital, Sun Yat-Sen Univer.*
- 9:00 HH5 **367.18** ● Responses to the binaural sound cues in MLd of chicken. I. FUKUI*; H. OHMORI. *Dept. of Physiol. and Neurology, Fac. of Medicine, Kyoto Univ.*
- 10:00 HH6 **367.19** Neuronal responses to gap-in-noise in the right and left auditory cortices in the rat. D. SUTA*; K. PYSANENKO; J. SYKA. *Inst. of Exp Med.*
- 11:00 HH7 **367.20** Audiomotor responses in EEG recordings of rhythmic drumming. M. D. SCHALLES*; J. A. PINEDA. *Univ. California San Diego.*

- 8:00 HH8 **367.21** Active listening modulates high gamma oscillations in the auditory cortex of awake behaving rats. P. VIANNEY*; D. IANCU; J. WELSH. *Federal Univ. of Rio Grande Do Norte, Oregon Hlth. Sci. Univ., Seattle Children's Res. Inst.*
- 9:00 HH9 **367.22** Task-dependent spatial responses in auditory cortex of common marmosets. E. D. REMINGTON*; X. WANG. *Johns Hopkins Univ. Sch. of Med.*
- 10:00 HH10 **367.23** Spatiotemporal field potential profiles of inhibitory responses in auditory core regions. Y. KAJIKAWA*; C. E. SCHROEDER. *Nathan Kline Inst., Columbia Univ.*
- 11:00 HH11 **367.24** Effects of NMDA receptor blockade on neuronal dynamics, stimulus processing and event-related potential generation in primary auditory cortex of the awake macaque. A. Y. FALCHIER*; P. LAKATOS; D. C. JAVITT; C. E. SCHROEDER. *Nathan Kline inst, Nathan Kline inst, Columbia Univ., Columbia Univ.*
- 8:00 HH12 **367.25** Responses to auditory stimuli vary between rostral and caudal regions in the central nucleus of the inferior colliculus. M. STRAKA*; D. SCHENDEL; S. J. SCHMITZ; L. SAJEVIC; P. T. LEE; J. NELSON; H. H. LIM. *Univ. of Minnesota.*
- 9:00 HH13 **367.26** Modulation of sensory responses in the auditory cortex by locomotion. D. A. MCCORMICK*; M. MCGINLEY. *Yale Univ. Sch. Med.*

POSTER

368. Auditory System: Behavior and Modeling

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 HH14 **368.01** Time course variability of sound evoked synaptic inputs in inferior colliculus (IC) of mouse. M. ONO*; D. OLIVER. *Univ. of Connecticut Hlth. Ctr.*
- 9:00 HH15 **368.02** Functional topography of thalamocortical and intracortical inputs to layers 4 and 6b. C. C. LEE*; K. IMAIZUMI. *LSU Sch. of Vet. Med.*
- 10:00 HH16 **368.03** ▲ Sound-evoked response properties of parvalbumin- and calretinin-expressing interneurons in auditory cortex. A. HARTMAN; M. S. WEHR*. *Univ. Oregon.*
- 11:00 HH17 **368.04** Representation of sound sequences in the auditory dorsal stream after sensorimotor learning in the rhesus monkey. D. ARTCHAKOV*; M. ORTIZ; P. KUSMIEREK; D. CUI; J. W. VANMETER; I. P. JÄÄSKELÄINEN; M. SAMS; J. P. RAUSCHECKER. *Georgetown Univ., Aalto Univ. Sch. of Sci., Max Planck Inst. for Biol. Cybernetics, Georgetown Univ.*
- 8:00 HH18 **368.05** The bidirectionality in music-to-language transfer effects. S. A. HUTKA*; G. BIDELMAN; S. MORENO. *Rotman Res. Inst., Univ. of Toronto.*
- 9:00 HH19 **368.06** ● The representation of vowel formant frequencies in rat auditory cortex. C. HONEY; J. M. NOUR; J. W. SCHNUPP*. *Oxford Univ., Oxford Univ.*
- 10:00 HH20 **368.07** A Bayesian neural model of sound source azimuth localization based on temporal cues. V. BENICHOX*; M. STIMBERG; R. BRETTE. *Equipe Audition/dec/Ecole Normale Supérieure.*
- 11:00 II1 **368.08** Breaking down the cortical representation of speech in the local field potential and multi-unit activity. N. DING; J. Z. SIMON; S. A. SHAMMA; S. V. DAVID*. *Univ. of Maryland, Oregon Hlth. & Sci. Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 II2 **368.09** Capturing with EEG the neuronal entrainment and coupling underlying sensorimotor integration while moving to the beat. S. NOZARADAN*; I. PERETZ; A. MOURAUX. *Lab. of Neurophysiology, Ions, UCL, Brussels.*
- 9:00 II3 **368.10** Cortical dynamics and subcortical morphology predict rapid adaptation to changing spectro-temporal cues. M. SCHARINGER*; M. J. HENRY; J. ERB; J. OBLESER. *Max-Planck Inst.*
- 10:00 II4 **368.11** Intracortical, horizontal connections contribute to cortical receptive fields and coordinate gamma oscillations across cortical space. M. JESCHKE*; F. W. OHL. *Dpt. Systems Physiol. of Learning, Leibniz Inst. For Neurobio., Otto-von-Guericke Univ. Magdeburg.*
- 11:00 II5 **368.12** Population neural coding of natural sounds in macaque auditory cortex. M. FUKUSHIMA*; R. C. SAUNDERS; D. A. LEOPOLD; M. MISHKIN; B. B. AVERBECK. *NIH/NIMH.*
- 8:00 II6 **368.13** Noradrenergic gating of long-term cortical synaptic plasticity. A. MARTINS*; R. C. FROEMKE. *Skirball Inst. of Biomolecular Med., PhD Programme in Exptl. Biol. and Biomedicine (PDBEB), Ctr. for Neurosciences and Cell Biology, Univ. of Coimbra.*
- 9:00 II7 **368.14** Perceptual adaptation to degraded speech: Tuning in cortical and subcortical brain structures. J. ERB*; M. J. HENRY; F. EISNER; J. OBLESER. *Max Planck Inst. for Human Cognitive & Brain Sci., Max Planck Inst. for Psycholinguistics.*
- 10:00 II8 **368.15** Neural oscillatory activity of phantom tone perception. P. DEGUZMAN*; D. FEIN; J. DIAS; L. C. PARRA. *City Col. of New York.*
- 11:00 II9 **368.16** • Enhanced thalamocortical activity secondary to thalamic reticular nucleus activation: A computational model. A. WILLIS; D. LLANO*. *Univ. of Illinois At Urbana-Champaign.*
- 8:00 II10 **368.17** Neural coding of auditory temporal sequences in a songbird operant behavior. Y. LIM*; B. SHINN-CUNNINGHAM; T. J. GARDNER. *Boston Univ., Boston Univ.*
- 9:00 II11 **368.18** Fast auditory responses in dorsal premotor cortex of the rhesus monkey. P. KUSMIEREK*; J. P. RAUSCHHECKER. *Georgetown Univ., Georgetown Univ.*
- 10:00 II12 **368.19** Modulation of temporal coding in the superior paraolivary nucleus. D. M. SLOAN*; A. S. BERREBI. *West Virginia University, West Virginia University.*
- 11:00 II13 **368.20** Differentially recruited brain areas for familiar and unfamiliar segments of a progressively presented musical sequence. B. M. GREEN*; J. SALMI; I. JÄÄSKELÄINEN; M. SAMS; J. RAUSCHHECKER. *Georgetown Univ. Med. Ctr., Aalto University, Sch. of Sci.*
- 8:00 II14 **368.21** Slow frequency modulation entrains neural delta oscillations and determines human listening behavior. M. J. HENRY; J. OBLESER*. *Max Planck Inst. For Human Cognitive and Brain Sci.*
- 9:00 II15 **368.22** Mapping spatial and functional organization of local neuronal populations in deep layers of core auditory cortex using high-density multi-electrode arrays. I. DELGADO RUZ; J. SOLLINI; S. R. SCHULTZ; P. T. CHADDERTON*. *Imperial Col. London.*
- 10:00 II16 **368.23** Glycine occludes GABAergic inhibition in the avian sound localization pathway. M. J. FISCHL*; S. R. WEIMANN; M. G. KEARSE; R. M. BURGER. *Lehigh Univ.*
- 11:00 II17 **368.24** Listening to an audio drama activates parallel processing streams for speech and non-speech sounds. R. BOLDT; S. MALINEN; M. SEPPÄ; P. TIKKA; P. SAVOLAINEN; R. HARI; S. CARLSON*. *Brain Res. Unit, O.V. Lounasmaa Laboratory, Sch. of Science, Aalto Univ., Advanced Magnetic Imaging Centre, O.V. Lounasmaa Laboratory, Sch. of Science, Aalto Univ., Dept. of Motion Picture, Television and Production Design, Sch. of Art and Design, Aalto Univ., Nexstim Ltd, Univ. Helsinki Inst. Biomed.*
- 8:00 II18 **368.25** Categorical speech representation in the auditory cortex. J. ALHO; B. GREEN; P. MAY; M. SAMS; H. TIITINEN; J. RAUSCHHECKER; I. P. JÄÄSKELÄINEN*. *Aalto Univ., Lab. of Integrated Neurosci. and Cognition, Interdisciplinary Program in Neuroscience, Georgetown Univ. Med. Ctr.*
- 9:00 II19 **368.26** WITHDRAWN
- 10:00 II20 **368.27** Early differential activation reflecting the identification of relevant versus irrelevant auditory stimuli in a complex auditory scene. M. L. GAMBLE*; M. G. WOLDORFF. *Duke Univ.*
- 11:00 JJ1 **368.28** Tracking natural auditory object learning in single cortical neurons. D. P. KNUDSEN*; T. Q. GENTNER. *UC San Diego, UC San Diego.*
- 8:00 JJ2 **368.29** • Selective attention to natural auditory streams in single cortical neurons of the European starling. E. CAPORELLO*; T. Q. GENTNER. *UC San Diego, UC San Diego, UC San Diego.*
- 9:00 JJ3 **368.30** Representing the learned statistics of auditory sequences in single unit responses. J. T. KIGGINS*; T. Q. GENTNER. *UC San Diego, UC San Diego, UC San Diego, UC San Diego.*

POSTER

369. Multisensory Processing: Temporal Factors

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 JJ4 **369.01** Neural basis of lag-adaptation effect. T. SONE*; K. AMANO; T. TAKEDA. *The Univ. of Tokyo, JST.*
- 9:00 JJ5 **369.02** The study of synchrony judgment mechanism using multisensory brain activity. K. OKA*; K. AMANO; Y. UNO; T. SONE; T. TAKEDA. *The Univ. Of Tokyo, JST.*
- 10:00 JJ6 **369.03** Neural responses in the rat parietal cortex during a multisensory decision-making task. D. NUNES RAPOSO*; J. P. SHEPPARD; A. K. CHURCHLAND. *Cold Spring Harbor Lab., Champalimaud Neurosci. Programme, Watson Sch. of Biol. Sci.*
- 11:00 JJ7 **369.04** Plasticity in multisensory temporal processing after cochlear implantation. B. D. MANGUS*; J. KRUEGER FISTER; R. A. STEVENSON; S. W. SHEFFIELD; A. J. HEDLEY-WILLIAMS; R. H. GIFFORD; R. F. LABADIE; M. T. WALLACE. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*
- 8:00 JJ8 **369.05** • Effects of multisensory training on pitch perception of a pulse oximeter. J. SCHLESINGER*; R. STEVENSON; M. WALLACE. *Vanderbilt Univ. Med. Ctr.*
- 9:00 JJ9 **369.06** Bayesian cue calibration relies on the multisensory percept. A. ZAIDEL*; W. MA; D. ANGELAKI. *Washington Univ. Sch. of Med., Baylor Col. of Med.*

- 10:00 JJ10 **369.07** Auditory, visual, and audiovisual responses to speech and non-speech recorded directly from the temporal lobe. A. E. RHONE*; H. OYA; B. MCMURRAY; R. A. REALE; K. V. NOURSKI; H. KAWASAKI; M. A. HOWARD, III. *Univ. of Iowa, Univ. of Iowa Hosp. and Clinics, Univ. of Wisconsin.*
- 11:00 JJ11 **369.08** ● Abnormal audio-visual integration in schizophrenia: An MEG study. I. NAKAMURA*; Y. HIRANO; S. HIRANO; T. UENO; N. OHARA; S. KATSUKI; Y. ODA; R. TSUCHIMOTO; S. KANBA; T. ONITSUKA. *Kyushu Univ. Neuropsychiatry, Clin. Neurosci. Division, Lab. of Neuroscience, Dept. of Psychiatry, Boston VA Healthcare System, Brockton Div. and Harvard Med. Sch.*
- 8:00 JJ12 **369.09** Disrupted spectral and directional cortical connectivity explain impairment in an object motion discrimination task during egomotion in a patient with a left occipital lobe infarct. L. M. VAINA*; K. D. RANA; F. BUONANNO; M. S. HÄMÄLÄINEN. *Boston Univ., Harvard Med. School, Massachusetts Gen. Hosp., Harvard Med. School, Massachusetts Gen. Hosp.*
- 9:00 JJ13 **369.10** The effect of temporal prediction error on weight perception. H. KAMBARA*; D. SHIN; Y. KOIKE. *Tokyo Inst. Technol., JST, CREST.*
- 10:00 JJ14 **369.11** Multisensory integration effects to continuous, natural audiovisual speech with high temporal resolution. M. J. CROSSE*; E. C. LALOR. *Trinity Col. Dublin.*
- 11:00 JJ15 **369.12** Multisensory perceptual integration of real and imagined stimuli. C. C. BERGER*; H. H. EHRSSON. *Karolinska Institutet, Karolinska Institutet.*
- 8:00 JJ16 **369.13** Olfactory responsive taste cells in the Nucleus of the Solitary Tract in awake, behaving rats. O. D. ESCANILLA*; P. M. DI LORENZO. *Binghamton Univ.*
- 9:00 KK1 **369.14** ▲ Sense of body ownership facilitates the integration of visuotactile signals originating from our own body. A. OKABAYASHI*; S. YAMAMOTO. *Natl. Inst. of Advanced Industrial Sci. and Technol., Tokyo Med. and Dent. Univ.*
- 10:00 KK2 **369.15** ● Perceptual grouping over time within and across auditory and tactile modalities. I. LIN*; M. KASHINO. *NTT Communication Sci. Labs.*
- 11:00 KK3 **369.16** Neural mechanisms underlying a crossmodal temporal illusion in visual area MT. H. KAFALIGONUL*; T. D. ALBRIGHT; G. R. STONER. *Salk Inst., Salk Inst.*
- 8:00 KK4 **369.17** The multisensory plasticity of superior colliculus neurons is blocked by cortical deactivation. B. E. STEIN*; J. XU; B. A. ROWLAND; L. YU. *Wake Forest Univ. Sch. Med.*
- 9:00 KK5 **369.18** Multisensory integration and dynamic ranges in the superior colliculus of the awake cat. L. KENISTON*; B. STEIN; J. VAUGHAN; B. ROWLAND; T. PERRAULT. *Wake Forest Univ. Sch. of Med.*
- 10:00 KK6 **369.19** Dark-rearing alters the cortical influences on multisensory superior colliculus neurons. L. YU*; J. XU; B. ROWLAND; B. STEIN. *Wake Forest Univ. Sch. of Med.*
- 11:00 KK7 **369.20** Multisensory-unisensory differences in habituation in the superior colliculus of the alert cat. T. J. PERRAULT*, Jr.; L. P. KENISTON; J. W. VAUGHAN; B. A. ROWLAND; B. E. STEIN. *Wake Forest Univ. Sch. of Med.*
- 8:00 KK8 **369.21** Independent, but otherwise normal, experiences with auditory and visual information is not sufficient for the maturation of multisensory integration capabilities. J. XU*; L. YU; T. STANFORD; B. ROWLAND; B. STEIN. *Wake Forest Univ. Sch. of Med.*
- 9:00 KK9 **369.22** Temporal profiles of multisensory integration in the awake cat superior colliculus. B. A. ROWLAND*; T. J. PERRAULT, Jr.; L. P. KENISTON; J. W. VAUGHAN; B. E. STEIN. *Wake Forest Univ. Sch. of Med.*
- 10:00 KK10 **369.23** Minimal experience with cross-modal cues is sufficient for the instantiation of multisensory integration capabilities in superior colliculus neurons. R. L. MILLER*; B. A. ROWLAND; B. E. STEIN. *Wake Forest Univ. Sch. of Med.*

POSTER

370. Eye Movements and Perception

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 KK11 **370.01** Reversible loss of visual sensitivity in the rhesus monkey following ivermectin activation of a modified glycine channel expressed in the primary visual cortex. W. LERCHNER*; A. HOROVITZ; R. C. SAUNDERS; B. J. RICHMOND. *NIH.*
- 9:00 KK12 **370.02** Non-retinal modulation of cortical excitability during active vision. A. BARCZAK*; D. A. ROSS; A. FALCHIER; P. LAKATOS; C. E. SCHROEDER. *Nathan S. Kline Inst. For Psychiatric Res., New York Univ. Sch. of Med., Columbia Univ. Col. of Physicians & Surgeons.*
- 10:00 KK13 **370.03** Anticipatory remapping of stimulus information in the lateral intraparietal area (LIP). K. MIRPOUR*; J. W. BISLEY. *UCLA, Jules Stein Eye Institute, David Geffen Sch. of Med., UCLA, Dept. of Psychology and the Brain Res. Inst., UCLA.*
- 11:00 KK14 **370.04** The contribution of retinal and non-retinal sources to area V1's responses to microsaccades: Implications for visual stability and microsaccadic suppression. S. MARTINEZ-CONDE*; X. G. TRONCOSO; A. NAJAFIAN JAZI; J. OTERO-MILLAN; S. L. MACKNIK. *Barrow Neurolog. Inst., Barrow Neurolog. Inst., Caltech, Arizona State Univ., Univ. of Vigo.*
- 8:00 KK15 **370.05** Mechanisms for the temporal summation of transsaccadic motion signals. B. T. DUNKLEY*; J. C. DESSING; J. D. CRAWFORD. *York Univ.*
- 9:00 KK16 **370.06** Perisaccadic response modulations in area V4 of the macaque monkey. S. KLINGENHOEFER*; M. WITTENBERG; T. WACHTLER; F. BREMMER. *Philipps-University, Ludwig-Maximilians-University.*
- 10:00 KK17 **370.07** Comparison of visual responses observed in single unit activity and local field potentials in the primate Superior Colliculus. T. IKEDA*; S. E. BOEHNKE; R. A. MARINO; B. J. WHITE; D. P. MUNOZ. *Queen's Univ.*
- 11:00 KK18 **370.08** Response variability of frontal eye field neurons modulates with sensory input and saccade preparation but not visual salience. B. PURCELL*; P. WEIGAND; R. HEITZ; J. COHEN; J. SCHALL. *Vanderbilt Univ., Harvard Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 KK19 **370.09** Towards the system-level understanding of conscious visual perception: A study with electrocorticogram recording in monkeys under continuous flash suppression. K. TAKAURA*; N. TSUCHIYA; M. SAKAGAMI; N. FUJII. *Grad Univ., RIKEN BSI, Monash Univ., JST, BSI in Tamagawa Univ.*
- 9:00 KK20 **370.10** Intrinsic frontal alpha and occipital gamma oscillations predict express saccades and antisaccade errors. J. P. HAMM*; K. A. DYCKMAN; J. A. CIARROCHI; J. E. MCDOWELL; B. A. CLEMENTZ. *Univ. of Georgia, Univ. of Georgia.*
- 10:00 LL1 **370.11** Topological differences in shape transformed apparent motion disrupt visual object continuity revealed by zebrafish optokinetic response. Z. LIU*; M. MA. *Inst. Biophysics, CAS, Inst. of Biophysics, CAS.*
- 11:00 LL2 **370.12** A model of perisaccadic target flash mislocalization when a background stimulus is present continuously before, during and after a saccade. J. R. POLA*. *SUNY Col. Optometry.*
- 8:00 LL3 **370.13** Neural correlates of human self-motion remapping. T. P. GUTTELLING*; L. P. J. SELEN; W. P. MEDENDORP. *Radboud Univ. Nijmegen.*
- 9:00 LL4 **370.14** Throwing a spotlight on the perception of a human hand-object action via eye tracking. N. NATRAJ*; A. M. BORGHI; A. FLUMINI; B. PRILUTSKY; Y. M. PELLA; L. WHEATON. *GEORGIA INSTITUTE OF TECHNOLOGY, Univ. of Bologna.*
- 10:00 LL5 **370.15** Quantifying the relationship between perceptual and motor variability. D. B. LISTON*; A. GODINEZ; L. S. STONE. *NASA Ames Res. Ctr., San Jose State Univ.*
- 11:00 LL6 **370.16** Assessing the influence of allocentric spatial cues on memory-guided head free gaze shifts. R. A. MARINO*; X. YAN; D. CRAWFORD. *York Univ., York Univ.*
- 8:00 LL7 **370.17** • Infantile nystagmus: When is visual acuity extracted? A. H. WEISS*; J. PHILLIPS; J. P. KELLY. *Seattle Children's Hosp., Univ. of Washington, Seattle Children's Hosp., Univ. of Washington.*
- 11:00 LL11 **371.04** Projections to the brainstem from the macaque caudal ventrolateral prefrontal cortex. G. LUPPINO*; M. GERBELLA; S. TONELLI; S. ROZZI; E. BORRA. *Univ. of Parma Dept Neurosci., Italian Inst. of Technol.*
- 8:00 LL12 **371.05** Anatomical evidence for overlap of neck and oculomotor control systems in the ventral premotor cortex. I. BILLIG*; P. L. STRICK. *Univ. Pittsburgh, Res. Service, VAMC, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 9:00 LL13 **371.06** Role of the midline deep cerebellar nuclei in maintaining the state of misalignment in non-human primates with strabismus. A. C. JOSHI; V. E. DAS*. *Col. of Optometry, Univ. of Houston.*
- 10:00 LL14 **371.07** Understanding the response of granular layer interneurons through mossy fiber response. P. M. BLAZQUEZ*; G. KIM. *Washington Univ., Washington Univ.*
- 11:00 LL15 **371.08** Assessing the role of hox4 in the acquisition of velocity sensitivity in neurons of the horizontal oculomotor network. C. L. GROVE*; L. MA; M. LEE; S. J. SYLVESTER; K. DAIE; R. G. BAKER; E. AKSAY. *NYU Sch. of Med., Weill Cornell Med. Col.*
- 8:00 LL16 **371.09** Gaze holding in healthy subjects. G. BERTOLINI*; A. A. TARNUTZER; E. KHOJASTEH; I. OLASAGASTI; K. P. WEBER; C. J. BOCKISCH; D. STRAUMANN; S. MARTI. *Dept. of Neurology, Univ. Hosp. Zurich, Dept. of Otorhinolaryngology, Head and Neck Surgery, Univ. Hosp. Zurich, Dept. of Ophthalmology, Univ. Hosp. Zurich.*
- 9:00 LL17 **371.10** Gaze holding in patients with late-onset cerebellar degeneration. A. A. TARNUTZER*; G. BERTOLINI; E. KHOJASTEH; I. OLASAGASTI; K. P. WEBER; C. J. BOCKISCH; D. STRAUMANN; S. MARTI. *Univ. Hosp. Zurich, Univ. Hosp. Zurich, Univ. Hosp. Zurich.*

POSTER

371. Eye Movement Control: Cerebellum and Final Motor Pathway

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 LL8 **371.01** Functional magnetic resonance imaging (MRI) with selective zonal analysis suggests that differential compartmental medial rectus (MR) contractility augments vertical duction. J. L. DEMER*; R. A. CLARK. *Jules Stein Eye Inst.*
- 9:00 LL9 **371.02** Are there subgroups of rectus motoneurons related to fiber type and layer in the cat? M. O. BOHLEN; S. WARREN; M. J. MUSTARI; P. J. MAY*. *Univ. Mississippi Med. Ctr., Univ. of Washington.*
- 10:00 LL10 **371.03** ▲ Sparing of neurons in the primate trochlear (CN4) nucleus after unilateral neurectomy (NX). S. S. GOLLAPUDI*; Y. HOWARD; V. POUKENS; H. GHAZARIAN; D. S. ZEE; X. JING; J. TIAN; R. TAMARGO; J. L. DEMER. *UCLA, Johns Hopkins Med. Sch., UCLA, Johns Hopkins Med. Sch., Johns Hopkins Univ.*

POSTER

372. Saccades: Behavioral Studies

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 LL18 **372.01** • Baseball players have good ability in eye movements and not in visual perception. Y. UCHIDA*; D. KUDOH; T. HIGUCHI; K. KANOSUE. *Waseda Univ., Juntendo university, Sch. of Med., Waseda university, Waseda university.*
- 9:00 LL19 **372.02** The random walk paradigm for eliciting inhibition of return. S. A. JONES*; D. A. WESTWOOD. *The Sch. of Hlth. and Human Performance, Dalhousie Univ., Dalhousie Univ.*
- 10:00 LL20 **372.03** Saccade-related beta-band desynchronization in the subthalamic nucleus of Parkinson's disease patients during successful antisaccades and error trials. A. YUGETA*; W. D. HUTCHISON; R. CHEN. *Univ. of Toronto, Toronto Western Res. Inst.*
- 11:00 MM1 **372.04** Immediate feedback makes eye movements efficient. P. VERGHESE*; S. GHAGHAEI. *Smith Kettlewell Eye Res. Inst.*
- 8:00 MM2 **372.05** Vigor of saccades changes as a function of positive and negative reward rate prediction error. T. REPPERT*; R. SHADMEHR. *Johns Hopkins Univ.*

- 9:00 MM3 **372.06** Visual and post-saccadic potentiation of ocular counter roll gain results in near-stabilization of retinal images. R. B. GEARY*; H. S. YING; K. IRSCH. *Johns Hopkins Wilmer Eye Inst., Wilmer Ophthalmological Institute, Johns Hopkins Univ. Sch. of Med.*
- 10:00 MM4 **372.07** Vestibular contributions to saccadic target selection. K. HALFWERK; L. P. J. SELEN; B. D. CORNEIL; W. MEDENDORP*. *Radboud Univ. Nijmegen, Western Univ.*
- 11:00 MM5 **372.08** Short-term saccadic adaptation evoked by random errors is based on differential contributions of changes in saccade velocity and duration. M. A. JUNKER*; P. DICKE; P. THIER. *Hertie Inst. For Clin. Brain Res.*
- 8:00 MM6 **372.09** The cost of waiting: Impulsivity and vigor of saccades. J. E. CHOI*; R. SHADMEHR. *Johns Hopkins Univ.*
- 9:00 MM7 **372.10** Evidence that fixational saccades are exploratory eye movements, like large saccades. S. CLAUDIO*; J. QUINET; A. MONTAGNINI; L. GOFFART; G. MASSON. *Inst. Neurosci. De La Timone.*
- 10:00 MM8 **372.11** Microsaccades correct fixation errors due to blinks. F. COSTELA*; J. OTERO-MILLAN; M. MCCAMY; S. L. MACKNIK; X. G. TRONCOSO; A. NAJAFIAN; S. MARTINEZ-CONDE. *Barrow Neurolog. Inst., Arizona State Univ., Univ. of Vigo, Caltech.*
- 11:00 MM9 **372.12** Microsaccade endpoints reflect peripheral shape representations. A. IGNASHCHENKOVA*; C. CHEN; Z. M. HAFED. *Werner Reichardt Ctr. For Integrative Neurosci. (CIN).*
- 8:00 MM10 **372.13** Microsaccade production during saccade cancellation in a stop-signal task. J. D. SCHALL*; D. C. GODLOVE. *Vanderbilt Univ.*
- 9:00 MM11 **372.14** Study of blink perturbations on stimulation-evoked eye movements. H. KATNANI*; N. GANDHI; J. VAN OPSTAL. *Univ. of Pittsburgh, Univ. of Pittsburgh, Donders Inst. for Brain, Cognition, and Behaviour.*
- 10:00 MM12 **372.15** Reward expectation and ocular mechanics predict the peak velocities of horizontal saccades. L. Y. HUNG; L. L. CHEN*; K. KOSEK. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr.*
- 11:00 MM13 **372.16** Several factors, beside target probability, account for the effects of spatial expectancy on saccadic latencies. J. BUTLER*; F. CRISTINO; G. D'AVOSSA. *Bangor Univ.*
- 8:00 MM14 **372.17** Saccades toward a transient moving visual target in the inexperienced rhesus monkey. J. QUINET; L. GOFFART*. *Inst. de Neurosciences de la Timone, CNRS.*
- 9:00 MM15 **372.18** Enhancement of spatial learning by microstimulation of the supplementary eye field. X. LU*. *VA Med. Center, Minneapolis, Univ. of Minnesota, Juntendo Univ.*
- 10:00 MM16 **372.19** An eye-tracking study of visual-spatial problem solving strategies. J. L. STEVENSON*; K. R. HART; K. A. WILLIAMS. *Ursinus Col., Ursinus Col., Ursinus Col.*
- 11:00 MM17 **372.20** ● Attention, oscillations and eye-movement control. M. BAUER*; C. KLUGE; G. BARNES; R. J. DOLAN. *Wellcome Trust Ctr. Neuroimaging UCL, Univ. Magdeburg.*

- 8:00 MM18 **372.21** Changes in saccadic reaction time while maintaining neck flexion in children. K. KUNITA*; K. FUJIWARA; T. KIYOTA; K. ANAN. *Fac. of Sports & Human, Sapporo Intl. Univ., Grad. Sch. of Med. Sciences, Kanazawa Univ., Fac. of Humanities, Sapporo Intl. Univ.*

- 9:00 MM19 **372.22** Fmri studies of voluntary eye movements to cyclopean targets. D. GURLER*; M. BOLDING; M. WARD; J. DENHOLLANDER; P. GAMLIN. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham.*

POSTER

373. Saccades: Neural Circuitry and Models

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 MM20 **373.01** Suppression of neural activity in the posterior parietal cortex during gaze anchoring. M. A. HAGAN*; B. PESARAN. *New York Univ.*
- 9:00 NN1 **373.02** Effects of Dopamine receptor manipulations on dorsolateral prefrontal circuitry involved in prepotent response inhibition and maintenance of abstract rules. S. VIJAYRAGHAVAN*; K. SKOBLENICK; S. EVERLING. *Western Univ., University of Western Ontario, Univ. of Western Ontario.*
- 10:00 NN2 **373.03** Laminar recordings in lateral PFC during variable visual tasks. M. M. FABISZAK*; B. PESARAN. *New York Univ.*
- 11:00 NN3 **373.04** An overrepresentation of target space in the frontal eye field during saccadic eye movements. M. ZIRNSAK; B. NOUDOOST; N. A. STEINMETZ; K. Z. XU; T. MOORE*. *Stanford Univ., Stanford Univ. Sch. of Med.*
- 8:00 NN4 **373.05** Saccadic response characteristics of lateral cerebellar cortex neurons. V. PREVOSTO*; R. T. RAGHAVAN; M. A. SOMMER. *Duke Univ., Duke Univ., Duke Univ.*
- 9:00 NN5 **373.06** Saccadic responses of Purkinje cells in the oculomotor vermis exhibit highly idiosyncratic eye position dependencies. D. ARNSTEIN*; A. M. FRIEMANN; P. W. DICKE; P. THIER. *Hertie Inst. For Clin. Brain Res.*
- 10:00 NN6 **373.07** Evidence for an excitatory input from the intermediate to superficial layer of the rodent superior colliculus. N. GHITANI*; C. VOKOUN; M. JACKSON; M. BASSO. *Univ. of Wisconsin, Univ. of California.*
- 11:00 NN7 **373.08** Polarized spread of activity in the rostro-caudal axis of the superficial layer of the rat superior colliculus revealed using voltage imaging. P. O. BAYGUINOV; M. B. JACKSON; M. A. BASSO*. *Univ. of Wisconsin, Semel Inst. for Neurosci. and Human Behavior.*
- 8:00 NN8 **373.09** Target-distractor competition in superior colliculus associated with curved reach trajectories. R. M. MCPEEK*; J. SONG. *SUNY Optometry, Brown Univ.*
- 9:00 NN9 **373.10** The functional contribution of the frontal eye fields to activity in the intermediate superior colliculus. T. R. PEEL*; S. G. LOMBER; B. D. CORNEIL. *Western Univ., Western Univ.*
- 10:00 NN10 **373.11** Temporal control of sequential eye movements by basal ganglia. N. BHUTANI*; S. RAMAKRISHNAN; A. MURTHY. *Natl. Brain Res. Ctr., Ruhr Univ., Indian Inst. of Sci.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 NN11 **373.12** Evidence for the central mesencephalic reticular formation playing a role in the near triad. A. K. HORN-BOCHTLER*; M. O. BOHLEN; S. WARREN; P. J. MAY. *Inst. of Anat. and Cell Biol. I, LMU, Univ. Mississippi Med. Ctr., Univ. Mississippi Med. Ctr.*
- 8:00 NN12 **373.13** Simultaneous measurement of visual response modulation across cortical layers in area V4 during covert attention and saccade preparation. N. A. STEINMETZ*; T. MOORE. *Stanford Univ., Howard Hughes Med. Inst. and Stanford Univ.*
- 9:00 NN13 **373.14** Perisaccadic remapping in area MT: An attention-sensitive memory trace. T. YAO*; S. TREUE; B. S. KRISHNA. *German Primate Ctr.*
- 10:00 NN14 **373.15** Optogenetically-induced behavioral and functional network changes in primates. A. GERITS*; R. FARIVAR; B. R. ROSEN; L. L. WALD; E. S. BOYDEN; W. VANDUFFEL. *Neuro-And Psychophysiology, Athinoula A. Martinos Ctr. for Biomed. Imaging, Dept. of Radiology, Harvard Med. Sch., Media Lab, Synthetic Neurobio. Group, Massachusetts Inst. of Technol., McGovern Institute, Dept. of Brain and Cognitive Sciences, Massachusetts Inst. of Technol., Dept. of Biol. Engineering, Massachusetts Inst. of Technol.*
- 11:00 NN15 **373.16** The frontal eye fields are necessary for bottom-up, cue-induced influences on microsaccades. T. R. PEEL; Z. M. HAFED; S. G. LOMBER; B. D. CORNEIL*. *Western Univ., Univ. of Tuebingen, Western Univ.*
- 8:00 NN16 **373.17** Modeling the decomposition of retinotopic representations into 3-d eye and head movement commands. M. DAEMI*; J. CRAWFORD; G. KEITH. *Ctr. For Vision Res., York Univ., York Univ., York Univ., Ctr. for Vision Res.*
- 9:00 NN17 **373.18** Fragile or robust? The signal-dependent noise principle in saccadic optimal control. S. R. ANDERSON; P. DEAN; J. PORRILL*. *Univ. of Sheffield.*
- 10:00 NN18 **373.19** Predicting rhesus monkey eye movements during natural image search. R. KUO; K. KORDING; M. A. SEGRAVES*. *Northwestern Univ., Feinberg Sch. of Medicine, Northwestern Univ.*
- 11:00 NN19 **373.20** Effects of TMS over parietal cortex on visual feature memory for saccade and reach planning. D. C. CAPPADOCIA*; K. GHARAVI; J. C. DESSING; M. VESIA; J. D. CRAWFORD. *York Univ., York Univ., York Univ., Univ. of Waterloo.*
- 8:00 NN20 **373.21** EEG signals related to free-movements and cued-movement in saccadic eye movements. A. FUNASE*; A. CICHOCKI; I. TAKUMI. *Nagoya Inst. Technol., RIKEN, Nagoya Inst. of Technol.*
- 9:00 OO1 **373.22** Effects of TMS to frontal eye fields on saccade generation and BOLD signal. I. G. CAMERON*; J. M. RIDDLE; M. D'ESPOSITO. *Univ. of California, Berkeley.*
- 10:00 OO2 **373.23** Characterizing network interactions in EEG sources during saccade tasks. L. CHUKOSKIE*; T. MULLEN; J. R. BODENHAMER; W. T. BROCKLEHURST; C. LAM; M. WEDEEN; J. TOWNSEND; M. A. WESTERFIELD. *Univ. of California, San Diego (UCSD), Univ. of California, San Diego (UCSD), Univ. of California, San Diego (UCSD), Univ. of California, San Diego (UCSD), Univ. of California, San Diego (UCSD).*
- 11:00 OO3 **373.24** Spatiotemporal cortical activation related to natural and simulated saccadic eye movements. Y. C. CHANG; S. KHAN; S. TAULU; E. N. BROWN; M. S. HAMALAINEN; S. TEMEREANCA*. *Martinos Center, Massachusetts Gen. Hosp., Elekta Neuromag Oy, Harvard Med. Sch., Martinos Ctr, Harvard Med. Sch.*
- 8:00 OO4 **373.25** ● Putative saccade-related area in cingulate cortex identified by resting-state fMRI in macaques. S. BABAPOOR-FARROKHRAN*; K. JOHNSTON; S. EVERLING. *Western Univ., Western University, Robarts research institute, Western University, Robarts research institute.*

POSTER

374. Smooth Eye Movements: Pursuit and OKR

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 OO5 **374.01** Continuous visuospatial updating in superior colliculus neurons during smooth pursuit eye movements depends on behavioral relevance of target location. S. DASH*; X. YAN; H. WANG; J. D. CRAWFORD. *Ctr. For Vision Research, York Univ.*
- 9:00 OO6 **374.02** Information processing in MST parafoveal neurons during smooth pursuit adaptation. S. ONO*; M. J. MUSTARI. *Univ. of Washington.*
- 10:00 OO7 **374.03** Properties of the noise correlation between single unit activity in area MT and smooth pursuit eye movements. J. LEE*; S. G. LISBERGER. *Univ. of California, San Francisco, Howard Hughes Med. Inst.*
- 11:00 OO8 **374.04** Mechanisms of neural integration in the oculomotor brainstem for smooth pursuit eye movements. M. JOSHUA*; S. G. LISBERGER. *UCSF, Duke Univ.*
- 8:00 OO9 **374.05** Priming for smooth pursuit involves motor, but not sensory circuitry. S. J. HEINEN*; E. POTAPCHUK. *Smith-Kettlewell Eye Res. Inst., Smith-Kettlewell Eye Res. Inst.*
- 9:00 OO10 **374.06** Differential effects of stimulus past history for displacement and velocity during predictive vertical pursuit. A. MARSHALL*; R. ACKERLEY; G. BARNES. *Univ. of Manchester, Univ. of Gothenburg.*
- 10:00 OO11 **374.07** Neural networks implementing the visuomotor transformation for smooth pursuit. T. MURDISON*; G. LECLERCQ; G. BLOHM. *Queen's Univ., Canadian Action and Perception Network (CAPnet), Univ. catholique de Louvain.*
- 11:00 OO12 **374.08** Upright vs. supine smooth pursuit eye movements: A robust oblique effect regardless of the direction of gravity. L. S. STONE*; D. L. TOMKO; R. ERSHEID; L. WONG; D. B. LISTON. *NASA/Ames Res. Ctr., NASA, Dell Services Federal Government, San Jose State Univ., NASA.*
- 8:00 OO13 **374.09** Dynamics of vergence eye movements during 3D stereoscopic stimulation. P. MATTHIEU*; P. NEVEU; A. PRIOT; C. ROUMES. *Inst. De Recherche Biomédicale Des Armées.*
- 9:00 OO14 **374.10** Dancing eyes: The opening of the optokinetic feedback loop. Y. M. HUANG*; C. CHEN; C. J. BOCKISCH; D. STRAUMANN. *Neurol. Department, Zurich Univ. Hosp., Ophthalmology Dept., Zurich Univ. Hosp., ENT Dept., Zurich Univ. Hosp.,*

- 10:00 OO15 **374.11** Tracking the footstep illusion: Effects of transient contrast-induced perceived-velocity perturbations on smooth pursuit. L. MADELAIN*; A. MONTAGNINI; G. S. MASSON. *Ureca - Univ. Lille 3, Inst. de Neurosciences de la Timone UMR 7289 CNRS & Aix-Marseille Univ.*
- 11:00 OO16 **374.12** Post-microsaccadic enhancement of slow control. C. CHEN*; Z. M. HAFED. *Werner Reichardt Ctr. For Integrative Neurosci.*
- 8:00 OO17 **374.13** Eye movements in cerebral palsied and premature children. C. EGO*; J. ORBAN DE XIVRY; M. NASSOGNE; D. YUKSEL; P. LEFEVRE. *Univ. catholique de Louvain, Univ. catholique de Louvain, Cliniques universitaires Saint-Luc, Cliniques universitaires Saint-Luc.*

POSTER

375. Spinal Cord Processing

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 OO18 **375.01** Noxious stimulation activates neurons in the lateral medulla. W. PANNETON*; Q. GAN; M. ARIEL. *St Louis Univ.*
- 9:00 OO19 **375.02** Effects of spinal P/Q- and R-type voltage sensitive calcium channels blockers on formalin-evoked flinching and spinal dorsal horn c-Fos expression. T. TERASHIMA*; Q. XU; T. TAKASUSUKI; S. YAMAGUCHI; T. L. YAKSH. *UCSD, UCSD, Dokkyo Med. Univ.*
- 10:00 OO20 **375.03** Parvalbumin-positive neurons provide axo-axonic inputs to tactile afferents in the mouse dorsal horn. R. J. CALLISTER*; S. SIKANDER; C. M. KINNON; K. A. BOYLE; M. WATANABE; D. I. HUGHES; B. A. GRAHAM. *Univ. of Newcastle, Univ. of Glasgow, Hokkaido Univ. Sch. of Med.*
- 11:00 PP1 **375.04** Functional connectivity of lamina I local-circuit neurons. B. V. SAFRONOV*; L. L. LUZ; P. SZUCS. *IBMC.*
- 8:00 PP2 **375.05** Spatio-temporal imaging of spinal activities in the rat model of pain hypersensitivity. K. MIYOSHI*; T. FUKUOKA; K. NOGUCHI. *Hyogo Col. Med.*
- 9:00 PP3 **375.06** Rostrocaudal and mediolateral organization of activity evoked by focal stimulation within the spinal dorsal horn as visualized by voltage-sensitive-dye imaging in parasagittal and horizontal slices. M. MIZUNO; A. M. STRASSMAN*. *Beth Israel Deaconess Med. Ctr.*
- 10:00 PP4 **375.07** Connectivity and pharmacology of low-threshold mechanoreceptive C-fibers in the spinal dorsal horn. S. D. HONSEK*; R. P. SEAL; J. SANDKÜHLER. *Med. Univ. of Vienna, Univ. of Pittsburgh.*
- 11:00 PP5 **375.08** Developmental regulation of voltage-gated Na⁺ and voltage-independent K⁺ channel expression in the rat superficial dorsal horn. M. L. BLANKENSHIP; D. E. COYLE; M. L. BACCIE*. *Univ. Cincinnati.*
- 8:00 PP6 **375.09** Inward-rectifying potassium currents modulate pacemaker activity within the newborn rat superficial dorsal horn. J. LI*; M. BLANKENSHIP; M. BACCIE. *Univ. Cincinnati, Univ. of Cincinnati.*
- 9:00 PP7 **375.10** Site- and state-dependent inhibition of pruritogen-responsive spinal neurons by scratching. E. E. CARSTENS*; M. IODI CARSTENS; M. TOMINAGA; T. AKIYAMA. *Univ. California Davis, Univ. California Davis.*
- 10:00 PP8 **375.11** Bombesin-responsive superficial dorsal horn neurons non-selectively respond to pruritic and noxious stimuli in the mouse. T. AKIYAMA*; M. TOMINAGA; M. CARSTENS; E. CARSTENS. *Univ. California, Davis.*
- 11:00 PP9 **375.12** ● *In vivo* pruritic synaptic responses elicited by cutaneous 5-HT application in the superficial spinal dorsal horn of adult rats. D. UTA*; T. ANDOH; K. IMOTO; H. FURUE. *Natl. Inst. For Physiological Sci., Grad. Sch. of Med. and Pharmaceut. Sciences, Univ. of Toyama, The Grad. Univ. for Advanced Studies.*
- 8:00 PP10 **375.13** Cross-sensitization of histamine-independent scratching behavior and sensory neurons: Role of substance P and gastrin releasing peptide in spinal itch transmission. M. TOMINAGA*; T. AKIYAMA; A. DAVOODI; M. NAGAMINE; K. BLANSIT; A. HORWIZ; M. CARSTENS; E. CARSTENS. *Juntendo Univ. Inst. For Envrn. and Gender Specific Med., UC Davis.*
- 9:00 PP11 **375.14** Blockade of p38 MAPK phosphorylation reduces sigma-1 receptor induced mechanical allodynia in mice and CCI rats: involvement of NO/ROS signaling pathway. J. LEE*; J. MOON; S. CHOI; S. KANG; S. KWON; H. CHOI; S. LEE; D. ROH; H. HAN; A. BEITZ. *Seoul Natl. Univ., Kyung Hee Univ., Univ. of Minnesota.*
- 10:00 PP12 **375.15** Reactive oxygen species (ROS) modulate AMPA receptor phosphorylation and cell-surface localization in concert with pain-related behavior. D. Z. LEE; J. M. CHUNG*; K. CHUNG; M. KANG. *Univ. of TX Med. Br.*
- 11:00 PP13 **375.16** Co-expression of serine racemase with NR1 in superficial dorsal horn and its involvement with neuropathic pain behaviors. K. YUGE*; T. FUKUSHIMA; S. TANAKA; R. KONNO; H. YUICHI. *Dokkyo Univ. Sch. of Med., Int Univ. Hlth. & Welf, Ctr. Med. Sci.*
- 8:00 PP14 **375.17** NMDA receptor driven postsynaptic currents are critical for the generation of slow oscillating currents following reduced glutamate transporter activity in spinal cord dorsal horn. C. TONG*; A. B. MACDERMOTT. *Columbia Univ., Columbia Univ.*
- 9:00 PP15 **375.18** Enhancement by interleukin-1 β of AMPA and NMDA receptor-mediated currents in adult rat spinal superficial dorsal horn neurons. T. LIU*; X. CHEN; D. ZHANG; C. JIANG; T. FUJITA; E. KUMAMOTO. *The First Affiliated Hosp. of Nanchang Univ., the first affiliated hospital of Nanchang Univ., Fac. of Med.*
- 10:00 PP16 **375.19** Long-term endogenous control of hyperalgesia by spinal neuropeptide Y. W. FU*; B. SOLWAY; S. BOSE; G. CORDER; R. DONAHUE; B. TAYLOR. *Univ. of Kentucky, Tulane Univ. Hlth. Sci. Ctr.*
- 11:00 PP17 **375.20** Oxytocin modulates the membrane excitability of adult rat spinal substantia gelatinosa neurons in a biphasic manner. C. JIANG; T. FUJITA; N. XU; A. MATSUSHITA; S. OHTSUBO; T. LIU; E. KUMAMOTO*. *Dept Physiol, Saga Med. Sch.*
- 8:00 PP18 **375.21** Effects of cineole on spontaneous excitatory synaptic transmission in adult rat spinal substantia gelatinosa neurons. N. XU; T. FUJITA*; C. JIANG; A. MATSUSHITA; S. OHTSUBO; T. YASAKA; K. MIZUTA; T. LIU; E. KUMAMOTO. *Dept. Physiol., Fac. Med., Saga Univ.*
- 9:00 PP19 **375.22** Regulation of pain by nicotinic acetylcholine receptor (nAChR) agonist on arthritis model. K. SUNG; P. KIM; J. HWANG; S. LEE*. *Hanyang Univ., Univ. of Sangmyung.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 PP20 **375.23** Nociceptive spinal cord transmission is modulated by N-acyl phosphatidylethanolamine (NAPE). J. PALECEK*; V. NERANDZIC. *Inst. of Physiol., Inst. of Physiology, Acad. of Sci., Fac. of Science, Charles Univ.*
- 11:00 QQ1 **375.24** Modulation of nociceptive processing by PAR2 receptors at the spinal cord level. P. MRÓZKOVÁ*; J. PALECEK. *Inst. of Physiology, Acad. of Sci., Fac. of Science, Charles Univ., Inst. of Physiology, Acad. of Sci.*
- 8:00 QQ2 **375.25** Agmatinase and arginine decarboxylase mRNA levels in rodent spinal cord and DRG: A quantitative PCR study. S. A. SCHNELL*; P. B. BRAUN; L. VULCHANOVA-HART; M. RIEDL; R. SPELTZ-PAIZ; G. L. WILCOX; C. A. FAIRBANKS. *Univ. Minnesota, Univ. Minnesota, Univ. Minnesota, Univ. Minnesota.*
- 9:00 QQ3 **375.26** Amylin affects pain-related behaviors associated with the formalin test. C. S. POTES; M. PONTES; A. C. PESTANA; F. L. NETO*. *Ctr. of Med. Research, Fac. of Med. of Porto, IBMC - Inst. for Mol. and Cell Biol.*
- 10:00 QQ4 **375.27** Role of free fatty acid receptor GPR40 in mouse models of inflammatory and neuropathic pain. T. KURIHARA; P. KARKI; T. ASADA; T. NAGAYAMA*; M. YOSHIMURA; K. ARITA; A. MIYATA. *Kagoshima Univ., Kagoshima Univ., Atsuchi Neurosurgical Hosp., Kumamoto Hlth. Sci. Univ.*

POSTER

376. Pain Models: Behavior

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 QQ5 **376.01** The development of behavioral hypersensitivities in β -catenin conditional activation mice, a rodent model of degenerative disc disease. E. Y. CHANG*; B. VO; V. N. TRINH; D. CHEN; Z. D. LUO. *Univ. of California, Irvine, Rush Univ.*
- 9:00 QQ6 **376.02** The mechanical stress into the intervertebral disc generates the sensory signals and impaired behavioral patterns. E. PARK*; S. MOON; H. SEO; H. CHUNG; H. HAN. *Korea Univ. Col. of Med.*
- 10:00 QQ7 **376.03** Exploratory behavior impairment as an objective measurement of nociception in preclinical pain models. C. Z. ZHU*; T. NGUYEN; C. ZHONG; J. MIKUSA; A. LEWIS; D. GAUVIN; C. D. MILLS; C. LEE; A. W. BANNON; S. K. JOSHI. *Abbott Labs.*
- 11:00 QQ8 **376.04** • Investigation of alternation performance in cross-maze as a novel and objective method to detect pain-related cognitive impairment in rodents. J. W. BROWN*; L. LEWIS; L. E. RUETER; T. W. BANNON; M. ZHANG; S. K. JOSHI. *Abbott.*
- 8:00 QQ9 **376.05** Sensory, motor, cognitive and affective characterization of aging C57B male mice. M. MILLECAMPs*; S. ECHEVERRY; X. QUN SHI; J. ZHANG; L. S. STONE. *McGill Univ., McGill Univ.*
- 9:00 QQ10 **376.06** Illusory touch can reduce phantom pain when illusory movement does not: An alternative version of the mirror therapy. L. SCHMALZL*; C. RAGNÖ; H. EHRSSON. *Dept. of Neuroscience, Karolinska Inst., Arm Prosthesis Unit, Red Cross Hosp.*
- 10:00 QQ11 **376.07** Environmental enrichment ameliorates the effects of early life pain in mice. W. F. STERNBERG*; R. DEHORITY; T. EDWARDS, Jr; R. KAZINKA; J. MCCLURE; E. STEINER. *Haverford Col.*
- 11:00 QQ12 **376.08** Maturation changes in chronic pain following nerve injury in the rat. G. A. BARR*; B. A. WINKELSTEIN. *Children's Hosp. of Philadelphia, Perelman Sch. of Medicine, Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 8:00 QQ13 **376.09** • High throughput behavioral assessment of analgesic compounds for neuropathic pain. H. S. HAIN*; S. F. DAVIS; A. HU; V. V. ISTOMIN; M. C. IWUNZE; P. LORELLO; S. A. MALEKIANI; E. V. SABATH; V. ALEXANDROV; T. HANANIA. *PsychoGenics.*
- 9:00 QQ14 **376.10** • The comparison between aerobic exercises and morphine treatment for chronic back pain. W. F. HOEFER*; G. C. ROSSI. *Long Island University-Post.*
- 10:00 QQ15 **376.11** • Knockout rat models for pain research. K. M. GAMBER*; R. HENRY; L. LITTLE; A. CHAMBERS; A. MCCOY; G. ZHAO; D. JI; X. CUI; E. WEINSTEIN. *Sigma Advanced Genet. Engin. Labs.*
- 11:00 QQ16 **376.12** Ultrasonic signals differentiate between algogenic and pruritic stimuli injected in the rat cheek. J. BORZAN*; B. P. TURNQUIST; F. A. CARTERET; T. V. HARTKE; S. N. RAJA. *Johns Hopkins Univ., Bethel Univ., Johns Hopkins Univ.*
- 8:00 QQ17 **376.13** • Comparison of evoked and non-evoked endpoints in a rodent pain model and potential relevance to non-evoked human pain. D. L. LI; M. P. JOHNSON; J. D. KENNEDY*. *Eli Lilly and Co., Eli Lilly and Co.*
- 9:00 QQ18 **376.14** Comparison of a traditional stimulus evoked pain response assay with pain suppressed locomotor behavior in the rat. M. L. MEHALICK*; M. M. MORGAN. *Washington State Univ.*
- 10:00 QQ19 **376.15** Inhaled chlorine inhibits locomotion in mice - methodological and pharmacological investigations. T. J. NESS*; J. LYNCH HILL; C. DEWITTE; S. DORAN; S. MATALON. *Univ. Alabama Birmingham, UAB.*
- 11:00 QQ20 **376.16** Burrowing as a non-reflex behavioral readout for analgesic action in a rat model of knee joint rheumatoid arthritis. K. RUTTEN*; K. SCHIENE; T. PASQUALON; T. CHRISTOPH. *Grünenthal, GmbH.*
- 8:00 RR1 **376.17** Pharmacological validation of a refined burrowing paradigm for analgesic efficacy in a rat model of knee joint rheumatoid arthritis. K. RUTTEN; A. ROBENS; T. M. TZSCHENTKE*; T. CHRISTOPH. *Gruenenthal GmbH.*
- 9:00 RR2 **376.18** Spontaneous burrowing behaviour in mice and its application as an outcome measure of the global impact of chronic pain in the collagen antibody-induced arthritis (CAIA) model. A. DELANEY*; D. B. BAS; C. I. SVENSSON. *Karolinska Institutet.*
- 10:00 RR3 **376.19** Effects of mu opioid receptor agonists on pain-stimulated and pain-depressed behaviors in rats. A. ALTARIFI*; S. S. NEGUS*. *Virginia Commonwealth Univ.*
- 11:00 RR4 **376.20** • Effects of monoamine reuptake inhibitors on pain-stimulated and pain-depressed behaviors in rats. S. S. NEGUS*; M. B. ROSENBERG. *Virginia Commonwealth Univ.*
- 8:00 RR5 **376.21** Role of toll-like receptor 4 (tlr4) in pain-depressed behavior in rats. M. LEITL*; S. NEGUS. *Virginia Commonwealth Univ.*
- 9:00 RR6 **376.22** Dissociable effects of the FAAH inhibitors PF3845 and URB597 on acute pain-stimulated and pain-depressed behavior in rats. A. J. KWILASZ*; S. NEGUS. *VIRGINIA COMMONWEALTH UNIVERSITY, Virginia Commonwealth Univ.*

- 10:00 RR7 **376.23** Thermal place preference in rats with peripheral neuropathic pain. M. FRANEK*; G. LEA; K. SALTE; S. VACULIN. *Charles University, 3rd Fac. of Med.*
- 11:00 RR8 **376.24** Investigating the impact of repeated testing in the place escape avoidance paradigm. A. HARRIS*; C. T. MCNABB; P. N. FUCHS*. *The Univ. of Texas At Arlington.*
- 8:00 RR9 **376.25** Test chamber valence influences noxious evoked place escape/avoidance behavior. C. T. MCNABB*; A. L. HARRIS; P. N. FUCHS. *Univ. of Texas At Arlington.*
- 9:00 RR10 **376.26** Characterization of nociceptive responses to bee venom-induced inflammation in neonatal rats. M. LI; S. WANG*; G. LIM; J. CHEN; J. MAO. *The First Affiliated Hosp. of Chinese PLA Gen. Hosp., MGH Ctr. for Translational Pain Res., Mass Gen. Hosp., Harvard Med. Sch., Inst. for Biomed. Sci. of Pain.*
- 10:00 RR11 **376.27** Sex differences in antinociception using a model of pain-suppressed behavior. R. M. CRAFT*; R. HEUTINK; A. SPRADLIN. *Washington State Univ.*
- 11:00 RR12 **376.28** Sex differences in neuropathic pain: Investigations using a graded model of allodynia and possible neuroimmune contributors. L. NICOTRA; L. C. LORAM*; P. E. ROLAN; M. R. HUTCHINSON. *Univ. Adelaide, Univ. Colorado, Univ. Adelaide.*
- 8:00 RR13 **376.29** ● Stress-induced modification of noxious heat sensitivity in the AXB-BXA recombinant inbred mice lines is gender-dependent and genetically controlled. M. MASHREGI*; D. FROIMOVITCH; D. TICHAUER; E. SOLEIMANNEJAD; Z. SELTZER. *Univ. of Toronto.*
- 9:00 RR14 **376.30** Androstadienone-related stress-induced analgesia in the mouse via exposure to males. J. S. MOGIL*; R. E. SORGE; L. J. MARTIN; K. A. ISBESTER; W. F. STERNBERG. *McGill Univ., Haverford Coll.*
- 8:00 RR19 **377.05** Visualization of an active ensemble of cortical neurons *in vivo* using a novel activity-dependent promoter E-SARE. T. KAWASHIMA*; K. KITAMURA; K. OHKI; K. SUZUKI; M. NONAKA; S. KAMIJO; S. TAKEMOTO-KIMURA; M. KANO; H. OKUNO; H. BITO. *Univ. of Tokyo Grad. Sch. of Med., Univ. of Tokyo Grad. Sch. of Med., Kyushu Univ. Grad. Sch. of Med. Sci.*
- 9:00 RR20 **377.06** Long-range corticocortical inputs to motor cortical area from retrosplenial cortex. N. YAMAWAKI*; G. M. G. SHEPHERD. *Northwestern Univ.*
- 10:00 SS1 **377.07** Short-afferent inhibition during movement preparation in an index finger flexion task. M. J. ASMUSSEN*; M. F. JACOBS; K. G. H. LEE; C. M. ZAPALLOW; A. J. NELSON. *Univ. of Waterloo.*
- 11:00 SS2 **377.08** ▲ Automated reconstruction of the mouse barrel cortex at single neuron resolution. V. YE*; C. HUANG; M. GINGER; A. FRICK; T. CELIKEL. *The Univ. of Southern California, Neurocentre Magendie, Inserm.*
- 8:00 SS3 **377.09** Individual learning performance on whisker-dependent tactile discrimination tasks of wistar rats. A. C. KUNICKI*; E. MORYA; R. FUENTES; M. NICOLELIS. *Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Duke Univ., Duke Univ., Duke Univ., Duke Univ.*
- 9:00 SS4 **377.10** Theta-burst transcranial magnetic stimulation to modify somatosensory evoked potentials and spinal reflexes from the lower limb. C. M. ZAPALLOW*; D. A. E. BOLTON; M. J. ASMUSSEN; M. F. JACOBS; K. G. H. LEE; A. J. NELSON. *Univ. of Waterloo, Univ. of Waterloo.*
- 10:00 SS5 **377.11** Pre-stimulus alpha and gamma oscillations systematically predict detection of vibrissal deflections in head-posted mice. D. L. PRITCHETT*; J. H. SIEGLE; R. C. CLARY; J. FEATHER; H. FARROW; C. I. MOORE. *MIT, Brown Univ.*
- 11:00 SS6 **377.12** The influence of continuous theta-burst stimulation over the primary somatosensory cortex on temporal order judgement perception. K. LEE*; M. F. JACOBS; M. J. ASMUSSEN; C. M. ZAPALLOW; M. TOMMERDAHL; A. J. NELSON. *Univ. of Waterloo, Univ. of Waterloo, Univ. of North Carolina at Chapel Hill.*
- 8:00 SS7 **377.13** Long-range inputs to motor cortex from ventrolateral parietal cortical areas. B. A. SUTER*; G. M. G. SHEPHERD. *Dept Physiology, Feinberg Sch. Med., Northwestern Univ.*
- 9:00 SS8 **377.14** Parietal short intracortical inhibition observed through triple pulse transcranial magnetic stimulation. R. W. PAINE; M. HALLETT*. *NINDS/NIH.*
- 10:00 SS9 **377.15** Cell type-specific inhibitory inputs to dendritic and somatic compartments of parvalbumin-expressing neocortical interneuron. H. HIOKI*; S. OKAMOTO; M. KONNO; H. KAMEDA; J. SOHN; E. KURAMOTO; F. FUJIYAMA; T. KANEKO. *Kyoto Univ. Grad. Sch. of Med., Teikyo Univ. Sch. of Med., CREST, JST.*
- 11:00 SS10 **377.16** Corticocortical connections between the hindlimb region of the primary somatosensory cortex and the secondary motor cortex in mice. S. MANITA*; T. SUZUKI; M. ODAGAWA; M. INOUE; M. E. LARKUM; M. MURAYAMA. *RIKEN, Brain Sci. Inst., Dept of Biol. Information, Tokyo Inst. of Technol., Neurosci. Res. Ctr. Campus Mitte, Charité Universitätsmedizin Berlin.*
- 8:00 SS11 **377.17** ● Cooperative heterosynaptic interaction of spike timing-dependent plasticity in the developing barrel cortex. C. ITAMI*; F. KIMURA. *Saitama Med. Univ., Osaka Univ.*

POSTER

377. Somatosensory: Local Circuitry

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 RR15 **377.01** Laminarly orthogonal excitation of fast spiking and low threshold spiking interneurons in mouse motor cortex. A. APICELLA; I. R. WICKERSHAM; G. M. SHEPHERD*. *Northwestern Univ., MIT.*
- 9:00 RR16 **377.02** Representations of menthol and cold stimuli in the mouse neocortex. Y. TAKASHIMA*; P. L. BEUKEMA; A. L. BARTH. *Carnegie Mellon Univ.*
- 10:00 RR17 **377.03** Differential processing of sensory input by neighbouring layer 2 pyramidal neurons in whisker barrel cortex revealed by immediate-early-gene expression. J. JOUHANNEAU*; M. BRECHT; A. L. BARTH; J. F. A. POULET. *Dept. of Neuroscience, Max-Delbrück Ctr. for Mol. Med. (MDC), Neurosci. Res. Ctr. and Cluster of Excellence NeuroCure, Charité-Universitätsmedizin Berlin, Bernstein Ctr. for Computat. Neuroscience, Humboldt Univ. of Berlin, Dept. of Biol. Sci. and Ctr. for the Neural Basis of Cognition Carnegie Mellon Univ.*
- 11:00 RR18 **377.04** Effects of closed loop inhibitory feedback during active tactile exploration. J. SCHROEDER; G. TELIAN; J. T. RITT*. *Boston Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 SS12 **377.18** Combinatorial patterns of gene expression define new classes of cortical parvalbumin interneurons in the mouse somatosensory cortex. J. P. ROSSIER*; A. URBAN; A. BERNARD; Q. PERRENOUD; S. A. SORENSEN; T. GALLOPIN; M. HAWRYLYCZ; E. LEIN. *ESPCI PARIS, Allen Inst. for Brain Sci.*
- 10:00 SS13 **377.19** Feedback inhibition is preserved in layer 2/3 of primary somatosensory cortex following altered sensory experience. G. ALBIERI*; G. T. FINNERTY. *KHP Ctr. For Neurodegeneration, King's Col. London.*
- 11:00 SS14 **377.20** Preprodynorphin-producing neocortical interneurons constitute a subpopulation of somatostatin-expressing neurons. J. SOHN*; H. HIOKI; S. OKAMOTO; T. KANEKO. *Kyoto Univ. Grad. Sch. of Med.*
- 8:00 SS15 **377.21** Chronic functional ultrasound imaging of the rat brain through a thinned skull. A. URBAN*; E. MACE; G. MONTALDO; C. DEMENE; L. MARTINEZ; M. FINK; J. ROSSIER; M. TANTER. *Lab. De Neurobiologie, Inst. Langevin, ESPCI ParisTech, CNRS, INSERM, Paris, France.*
- 9:00 SS16 **377.22** Correlation of anatomical and resting state functional interactions within primary somatosensory cortex of monkeys. Z. WANG*; R. M. FRIEDMAN; L. CHEN; L. NEGYESSY; A. W. ROE. *Inst. of Neurosci., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Hungarian Acad. of Sci., Semmelweis Univ. Med. Sch.*

POSTER

378. Spinal Cord Injury: Plasticity II

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 SS17 **378.01** Retained effect of FES-assisted arm and leg cycling after incomplete spinal cord injury. R. ZHOU*; R. WONG; S. CHONG; A. KABORE; Y. KINYOGO; V. MUSHAHWAR. *Univ. of Alberta.*
- 9:00 SS18 **378.02** Functional neurophysiological assessment of the trunk muscles in individuals with spinal cord injury. D. G. TERSON DE PALEVILLE*; M. CHOPRA; D. A. ATKINSON; D. LORENZ; S. ASLAN; C. TOLFO; S. J. HARKEMA. *Univ. of Louisville, Frazier Rehab Inst.*
- 10:00 SS19 **378.03** • Recovery of trunk after spinal cord injury. G. F. FORREST*; A. RAMANUJAM; E. JOHNSEN; E. GARBARINI; D. PIERCE; S. HARKEMA. *Kessler Fndn. Res. Ctr., Kessler Fndn., Kessler Foundati, Univ. of Louisville.*
- 11:00 SS20 **378.04** Impaired task-dependent modulation of corticospinal drive after human spinal cord injury. K. L. BUNDAY*; M. A. PEREZ. *Univ. of Pittsburgh.*
- 8:00 TT1 **378.05** Crossed facilitation of corticospinal drive in muscles above and below human spinal cord injury. K. L. BUNDAY; A. P. CARUSO*; M. A. PEREZ. *Univ. of Pittsburgh.*
- 9:00 TT2 **378.06** • Testing spinal cord circuitries with MMR, is a complete spinal cord injury truly complete? M. M. SABBABI*; F. OVAK BITTAR; S. UZUN. *Texas Woman's Univ., Texas Electrophysiology Services.*
- 10:00 TT3 **378.07** • Diurnal and day-to-day variations in corticospinal excitability for the ankle dorsiflexor tibialis anterior muscle. J. A. BRANGACCIO*; J. M. SNIFFEN; A. K. THOMPSON. *Helen Hayes Hosp., State Univ. of New York at Stony Brook, Helen Hayes Hosp., Wadsworth Center, NYS Dept. Hlth., Neurolog. Institute, Columbia Univ., State Univ. of New York at Albany.*
- 11:00 TT4 **378.08** • Operant conditioning of the ankle dorsiflexor motor evoked potential (MEP) in people with and without CNS damage: Changes MEP size and silent period. L. TENTEROMANO*; A. J. AMSTERDAM; J. BRANGACCIO; J. SNIFFEN; A. THOMPSON. *Helen Hayes Hosp., State Univ. of New York at Stony Brook, Wadsworth Center, NYS Dept. Hlth., Neurolog. Institute, Columbia Univ., State Univ. of New York at Albany.*
- 8:00 TT5 **378.09** Task dependent modulation of the silent period to transcranial magnetic stimulation in the tibialis anterior muscle in healthy humans. J. M. SNIFFEN*; J. A. BRANGACCIO; A. K. THOMPSON. *Stony Brook Univ., Helen Hayes Hosp., Helen Hayes Hosp., NYS Dept. Hlth., Neurolog. Institute, Columbia Univ., State Univ. of New York at Albany.*
- 9:00 TT6 **378.10** Preserved foot motor cortex in spinal cord injury patients: An fNIRS study. K. L. M. KOENRAADT; J. E. DUYSSENS*; N. VAN DEN HURK-KITSLAAR; I. J. VAN NES; H. RIJKEN; N. L. W. KEIJERS. *Sint Maartenskliniek, Dept of Kinesiology (faber), Sint Maartenskliniek.*
- 10:00 TT7 **378.11** • Changes in M1 cortical excitability and intracortical inhibition induced by tDCS during resting and active states. X. ZHANG*; F. VAN DEN BERG; N. WENDEROTH. *K U Leuven, Neural Control of Movement Lab.*
- 11:00 TT8 **378.12** The after effects of anodal tDCS in cortical excitability and intracortical inhibition during resting and active states in elderly. F. VAN DEN BERG*; X. ZHANG; S. BERBEN; K. CUYPER; R. MEESEN; S. SWINNEN; N. WENDEROTH. *KU Leuven, Hasselt Univ., ETH.*
- 8:00 TT9 **378.13** Effects of transcranial direct current stimulation on ankle motor skill performance: Motor cortex vs. cerebellar stimulation. S. MADHAVAN*; B. SHAH. *Univ. of Illinois At Chicago.*
- 9:00 TT10 **378.14** Investigation of intensity-dependent changes following continuous theta-burst stimulation to the human primary motor cortex. M. F. JACOBS*; M. J. ASMUSSEN; K. G. H. LEE; C. M. ZAPALLOW; W. R. STAINES; A. J. NELSON. *Univ. of Waterloo.*
- 10:00 TT11 **378.15** Activation of the spinal locomotor network using exteroceptive stimulation allows the re-expression of locomotor pattern in chronic spinalized adult rats. O. ALLUIN*; H. DELIVET-MONGRAIN; S. ROSSIGNOL. *Univ. of Montreal.*
- 11:00 TT12 **378.16** Diffusion tensor imaging is sensitive to neuronal stem cell treatments. M. B. JIRJIS*; S. N. KURPAD; B. D. SCHMIT. *Marquette Univ., Med. Col. of Wisconsin.*
- 8:00 TT13 **378.17** ▲ Complex neural plasticity in an intersegmental cutaneous pain reflex after spinal cord injury. P. S. MALONE*; J. S. TIDWELL; J. M. WHITE; H. LEE; K. E. TANSEY. *Emory Univ., Emory Univ., Emory Univ., Shepherd Ctr., Emory Univ., Georgia Inst. of Technol., Atlanta VA Med. Ctr.*
- 9:00 TT14 **378.18** Central projection patterns of segmental cutaneous pain afferents in the rat spinal cord. H. LEE*; J. S. TIDWELL; J. M. WHITE; P. S. MALONE; K. E. TANSEY. *Emory Univ., Emory Univ., Shepherd Ctr., Emory Univ., Georgia Inst. of Technol., Emory Univ., Atlanta VA Med. Ctr.*
- 10:00 TT15 **378.19** Rehabilitation and plasticity from real-time neurofeedback using MEG. S. T. FOLDES*; D. J. WEBER; G. SUDRE; J. L. COLLINGER. *Univ. of Pittsburgh, Carnegie Mellon Univ., Univ. of Pittsburgh, VA Pittsburgh Healthcare Syst.*

- 11:00 TT16 **378.20** Spatially distributed sequential stimulation improves fatigue resistance in plantar flexors. D. SAYENKO*; M. R. POPOVIC; K. MASANI. *Toronto Rehabil. Inst., Univ. of Toronto.*
- 8:00 TT17 **378.21** Effects of patterned TMS onto motor network activity as revealed by simultaneous TMS-fMRI. T. HANAKAWA*; Y. SHIROTA; T. TANAKA; M. HAMADA; H. SHITARA; S. OHMINAMI; S. TANAKA; Y. TERAU; M. HONDA; R. HANAJIMA; Y. UGAWA. *Natl. Ctr. Neurol. & Psych., JST, Univ. of Tokyo, Nagoya Inst. Tech., Fukushima Med. Univ.*
- 9:00 TT18 **378.22** A neonatal SCID mouse model for studying functional recovery in descending projections after spinal cord injury. F. M. LAMBERT*; J. BOULLAND; M. ZÜCHNER; J. C. GLOVER. *Dpt of Physiology, Inst. of Basic Med. Sciences, Univ. of Oslo, Dept of Neurosurg.*

POSTER

379. Cerebellum: Behavior and Plasticity

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 TT19 **379.01** Lesions to the posterior cerebellar midline impair the executive control of attention as measured by the Attention Network Test. T. MOBERGET*; L. T. WESTLYE; S. ANDERSSON; A. HELDAL; B. DUE-TØNNESSEN; T. LUNDAR; T. ENDESTAD. *Univ. of Oslo, Univ. of Oslo, Oslo Univ. Hosp. HF – Rikshospitalet, Oslo Univ. Hosp. HF – Rikshospitalet.*
- 9:00 TT20 **379.02** Correlated changes in granular and molecular layer plasticity induced by mossy fiber theta-burst patterns. F. PRETORI; L. CONGI; J. MAPELLI; D. GANDOLFI; K. RAMAKHRISHNAN; L. MAPELLI; M. PAGANI; F. BLANDINI*; E. U. D'ANGELO. *IRCCS C.Mondino, Univ. of Pavia, Univ. of Modena, Neurolog. Inst. C.Mondino.*
- 10:00 UU1 **379.03** Cerebellar degeneration alters the generalization of motor memories. M. D. HARRAN*; S. PEKNY; R. SHADMEHR. *Johns Hopkins Univ.*
- 11:00 UU2 **379.04** Probing the contribution of the fronto-cerebellar system to rapid visual attention: A TMS and EEG study. C. P. ARASANZ*; T. A. SCHWEIZER; R. STAINES. *Univ. of Waterloo, Univ. of Toronto, Univ. of Waterloo.*
- 8:00 UU3 **379.05** Automated Parcellation of the Human Cerebellum. D. CROCETTI*; S. MOSTOFISKY. *Kennedy Krieger Institute.*
- 9:00 UU4 **379.06** Effects of continuous theta burst stimulation over the cerebellar vermis on saccade adaptation are counteracted by NMDA receptor antagonist. P. COLAGIORGIO*; S. COLNAGHI; G. KOCH; S. RAMAT; M. VERSINO; E. D'ANGELO. *Univ. Di Pavia, IRCCS Natl. Neurolog. Inst. C. Mondino, IRCCS Fondazione Santa Lucia.*
- 10:00 UU5 **379.07** Disruption of right cerebellum with rTMS blocks predictive language processing. E. LESAGE; B. E. MORGAN; A. C. OLSON; A. S. MEYER; R. C. MIAL*. *Univ. of Birmingham, Max Planck Inst. for Psycholinguistics, Univ. of Birmingham.*
- 11:00 UU6 **379.08** Functional MRI of the human cerebellum reveals overlapping representations of individual digits and the hand. W. VAN DER ZWAAG*; R. MARTUZZI; R. KUSTERS; O. BLANKE; R. GRUETTER; J. P. MARQUES. *Univ. De Lausanne, EPFL.*
- 8:00 UU7 **379.09** Effects of continuous theta burst stimulation over the cerebellar vermis on double-step saccade adaptation. S. RAMAT*; S. COLNAGHI; P. COLAGIORGIO; E. D'ANGELO; G. KOCH; M. VERSINO. *Universita' Di Pavia, IRCCS Natl. Neurolog. Inst. C. Mondino, IRCCS Fondazione Santa Lucia.*
- 9:00 UU8 **379.10** Modulation of spino-olivo-cerebellar pathways in awake rats by the midbrain periaqueductal grey. T. C. WATSON*; B. M. LUMB; R. APPS. *Univ. of Bristol.*
- 10:00 UU9 **379.11** Preliminary voxel-based lesion-symptom mapping in cerebellar stroke patients: Motor vs. cognitive outcomes. C. J. STOODLEY*; J. P. MACMORE; N. MAKRI; J. C. SHERMAN; J. D. SCHMAHMANN. *American Univ., Massachusetts Gen. Hosp., Athinoula A. Martinos Ctr. for Biomed. Imaging.*
- 11:00 UU10 **379.12** Theoretical study on importance of a post-training period for memory transfer in cerebellar motor learning. T. YAMAZAKI*; S. NAGAO. *The Univ. of Electro-Communications, RIKEN Brain Sci. Inst.*
- 8:00 UU11 **379.13** Bi-hemispheric model of the cerebellum with realistic climbing fiber input. R. PINZON-MORALES; Y. HIRATA*. *Chubu Univ. Col. of Engin.*
- 9:00 UU12 **379.14** • Time properties of complex-spike linked single trial plasticity in the cerebellum. Y. YANG*; S. G. LISBERGER. *Duke Univ.*
- 10:00 UU13 **379.15** Movement preparation prior to ballistic targeted movements of the wrist in ataxia. J. M. WILSON*; L. ADAMS; A. KELSEY; N. PRINCE; C. SURECK; C. D. MACKINNON. *Northwestern Univ.*
- 11:00 UU14 **379.16** Beyond motor learning: The cerebellum optimizes perception by updating predictions about the statistics of our sensory environment. M. J. ROTH; M. SYNOFZIK; A. LINDNER*. *Hertie Inst.*
- 8:00 UU15 **379.17** Brain changes associated with postural training in patients with cerebellar degeneration: a voxel-based morphometry study. R. G. BURCIU*; N. FRITSCH; O. GRANERT; L. SCHMITZ; N. SPÖNEMANN; J. KONCZAK; N. THEYSOHN; M. GERWIG; T. VAN EIMEREN; D. TIMMANN. *Univ. of Duisburg-Essen, Christian Albrechts Univ., Univ. of Minnesota, Univ. of Duisburg-Essen.*
- 9:00 UU16 **379.18** Do regional cerebellar volumes explain individual differences in sensorimotor function? J. A. BERNARD*; R. D. SEIDLER. *Univ. Michigan.*
- 10:00 UU17 **379.19** Locomotor deficits after spatially restricted knock-down of Connexin 36 in the inferior olive of juvenile rats. J. R. MUELLER*; M. KRIEBEL; H. VOLKMER; P. THIER. *Hertie Inst. for Clin. Brain Res., NMI.*
- 11:00 UU18 **379.20** The burst size of olivary wavelets depends on the amplitude of the subthreshold oscillation. M. T. DE JEU*; J. R. DE GRUIJL; C. I. DE ZEEUW; P. BAZZIGALUPPI. *Erasmus MC, Netherlands Inst. for Neurosci.*
- 8:00 UU19 **379.21** Shedding light on climbing fiber mediated feed-forward inhibition in the cerebellum. P. J. MATHEWS*; K. LEE; Z. PENG; C. R. HOUSER; T. S. OTIS. *Univ. of California Los Angeles.*
- 9:00 UU20 **379.22** Selective disruption of spatial orientation in two mouse models of cerebellar degeneration. J. TUMA*; J. CENDELIN; F. VOZEH. *Fac. of Med. In Pilsen, Charles Univ., Fac. of Med. In Pilsen, Charles Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

380. Basal Ganglia: Systems Physiology II

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 VV1 **380.01** Globus pallidus deep brain stimulation disrupts information flow through the pallidum by GABAergic inhibition. A. NAMBU*; S. CHIKEN. *Natl. Inst. Physiol. Sci., The Grad Univ. for Adv. Studies.*
- 9:00 VV2 **380.02** Neuronal ensembles in the striatum differentially encode locomotion and context. H. G. YAMIN*; E. A. STERN; D. COHEN. *Bar Ilan Univ., Bar Ilan Univ., Massachusetts Gen. Hosp.*
- 10:00 VV3 **380.03** Differential reward coding in the dorsolateral and ventromedial part of the primate caudate. K. NAKAMURA*. *Kansai Med. Univ.*
- 11:00 VV4 **380.04** • NMDA receptor antagonism prevents the inversion of dopamine responses in striatal medium spiny neurons in Parkinsonian monkeys. A. SINGH*; L. F. POTTS; K. J. BURKE; J. S. WHITHEAR; B. DYAVAR SHETTY; S. M. PAPA. *Yerkes Natl. Primate Res. Center, Emory University, Emory Univ. Sch. of Med.*
- 8:00 VV5 **380.05** Bursts and pauses of medium spiny neurons are modulated by dopamine in the Parkinsonian monkey. S. UTHAYATHAS*; A. SINGH; L. F. POTTS; S. M. PAPA. *Emory Univ., Emory Univ.*
- 9:00 VV6 **380.06** A new scale for assessing levodopa-induced dyskinesias in the non-human primate model of Parkinson's disease. L. F. POTTS*; S. UTHAYATHAS; A. SINGH; B. DYAVAR SHETTY; J. S. WHITHEAR; S. M. PAPA. *Emory Univ.*
- 10:00 VV7 **380.07** Firing of striatal neurons in Parkinson's disease patients. S. M. PAPA*; A. SINGH; J. S. WHITHEAR; L. F. POTTS. *Emory Univ., Emory Univ.*
- 11:00 VV8 **380.08** Lack of correlation between progressive emergence of motor cortex-basal ganglia synchrony in the high beta/low gamma frequency range and motor deficits in rodent models of Parkinson's disease. N. I. NOVIKOV*; E. BRAZHNIK; A. V. CRUZ; N. M. ILIEVA; C. M. GERBER; A. J. MCCOY; J. R. WALTERS. *NIH NINDS.*
- 8:00 VV9 **380.09** Dorsal raphe neuronal activity in an animal model of Parkinson's disease and L-dopa-induced dyskinesia. K. B. DUPRE*; C. DELAVILLE; E. BRAZHNIK; N. NOVIKOV; J. R. WALTERS. *NIH NINDS.*
- 9:00 VV10 **380.10** Action-related neuronal activity in the globus pallidus of macaques reflects multiple aspects of goal-directed behavior. Y. SAGA; M. HASHIMOTO; L. TREMBLAY; J. TANJI; E. HOSHI*. *Tokyo Metropol. Inst. of Med. Sci., Ctr. de Neurosci. Cognitive, UMR5229 CNRS 67, Tamagawa Univ. Brain Sci. Inst., Tohoku Univ. Brain Sci. Ctr., CREST, JST.*
- 10:00 VV11 **380.11** Bilateral and multisensory integration in striatal microcircuits. R. REIG*; G. SILBERBERG. *Karolinska Institutet, Karolinska Institutet.*
- 11:00 VV12 **380.12** Sustained tonic excitation and suppression of activity on pedunculo-pontine tegmental nucleus neurons in behaving monkeys. K. OKADA*; Y. KOBAYASHI. *Osaka Univ., Osaka Univ., Ctr. for Information and Neural Networks, PRESTO, Japan Sci. and Technol. Agency (JST).*
- 8:00 VV13 **380.13** The primate nigrothalamic pathway signals stable values of visual objects. M. YASUDA*; O. HIKOSAKA. *Natl. Eye Inst.*
- 9:00 VV14 **380.14** Opposite effects of caudate head and tail inactivation on flexible and stable value-guided behavior. H. KIM*; O. HIKOSAKA. *NIH, NEI, LSR.*
- 10:00 VV15 **380.15** Dopaminergic modulation of corticostriatal transmission in monkeys. Y. MA; Y. SMITH; T. WICHMANN*. *Emory Univ. Sch. Med., Emory Univ. Sch. Med.*
- 11:00 VV16 **380.16** Basal ganglia fMRI responses during skilled manual motor tasks in the non-human primate. K. NELISSEN*; P. DE MAZIÈRE; W. VANDUFFEL. *K.U.Leuven Med. Sch., 2Massachusetts Gen. Hospital, Harvard Med. School, Athinoula A. Martinos Ctr. for Biomed. Imaging.*
- 8:00 VV17 **380.17** • Interactions of subthalamic nucleus antidromic action potentials and intrinsic oscillators. E. B. MONTGOMERY JR*; H. HUANG; B. L. GUTHRIE; H. C. WALKER; R. L. WATTS. *Univ. Alabama At Birmingham.*
- 9:00 VV18 **380.18** Dopamine D1 and D2 receptors differently modulate information processing through the basal ganglia. S. CHIKEN*; C. OHTA; A. SATO; T. SASAKA; M. KUROKAWA; A. NAMBU. *Natl. Inst. For Physiological Sci., Grad. Univ. for Advanced Studies, Tokyo Metropolitan Univ., Kitasato Univ. Sch. of Med., Natl. Inst. for Basic Biol.*
- 10:00 VV19 **380.19** Investigating the role of striatal subcircuits in the performance of action sequences using optogenetics. F. TECUAPETLA*; X. JIN; J. ALMEIDA; S. Q. LIMA; R. COSTA. *Champalimaud Ctr. for Unknown, The Salk Inst. for Biol. Studies.*
- 11:00 VV20 **380.20** Complex limb and cue signals and interactions in primate globus pallidus neurons. J. W. MINK*; C. J. HALL; T. NICHOLSON. *Univ. Rochester Med. Ctr., Univ. Rochester Med. Ctr., Univ. Rochester Med. Ctr.*
- 8:00 WW1 **380.21** Open- and closed-loop components of cortico-striatal circuits with prefrontal cortex. A. C. BOSTAN*; R. P. DUM; P. L. STRICK. *Univ. of Pittsburgh, Res. Service, VA Med. Ctr.*
- 9:00 WW2 **380.22** Striatopallidal neurons attenuate motor activity through the phasic response pattern in the basal ganglia. H. SANO*; S. CHIKEN; K. KOBAYASHI; A. NAMBU. *Natl. Inst. for Physiol. Sci., Fukushima Med. Univ.*
- 10:00 WW3 **380.23** Striatal processing of cortical neuronal avalanches. A. KLAUS*; D. PLENZ. *Natl. Inst. of Mental Hlth., Karolinska Inst.*
- 11:00 WW4 **380.24** Gating of spontaneous and amygdala-evoked activity of nucleus accumbens neurons by the lateral habenula. M. TSE*; C. M. STOPPER; S. B. FLORESCO. *Univ. British Columbia, Univ. of British Columbia.*
- 8:00 WW5 **380.25** Electrophysiological characteristics of identified striatal interneurons *in vivo*. A. SHAROTT*; N. DOIG; N. MALLETT; P. J. MAGILL. *MRC Anatom. Neuropharm. Unit, Univ. of Michigan.*
- 9:00 WW6 **380.26** GPi is involved at multiple task levels in selection and inhibition of competing motor behaviors. I. STATNIKOVA*; J. W. MINK. *Univ. Rochester, Univ. Rochester.*

POSTER

381. Voluntary Movement: Neuroimaging

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 WW7 **381.01** Motor system injury and function provide insight into pre-therapy arm motor status. E. BURKE*; L. DER-YEGHIAIAN; J. RILEY; J. SEE; A. MCKENZIE; V. LE; S. C. CRAMER. *UC Irvine, Chapman Univ.*
- 9:00 WW8 **381.02** Parkinson's disease and brain representations for learning and recalling internal models. J. N. SANES*; P. BÉDARD. *Brown Univ.*
- 10:00 WW9 **381.03** ● Effective connectivity in voluntary movement modulated by transcranial magnetic stimulation (TMS). J. KIM*; J. KO; C. JANG; J. LEE; H. PARK. *Yonsei Univ.*
- 11:00 WW10 **381.04** Brain potentials evoked by interruption of motor intention prior to movement initiation. H. FUKUDA*; O. HIWAKI. *Hiroshima City Univ.*
- 8:00 WW11 **381.05** ● Motor demand dependent activation of ipsilateral motor cortex. K. PIROG REVILL; L. SHUSTER; B. HINES; C. STOECKEL; M. PARSONS; C. M. BUETEFISCH*. *Georgia State University/Georgia Inst. of Technol., West Virginia Univ., West Virginia Univ., Univ. Med. Ctr. Hamburg-Eppendorf, Cleveland Clin., Emory Univ.*
- 9:00 WW12 **381.06** Flexibility of functional brain networks during extended learning. D. S. BASSETT*; N. F. WYMBBS; M. A. PORTER; P. J. MUCHA; S. T. GRAFTON. *Univ. of California Santa Barbara, Univ. of California Santa Barbara, Univ. of Oxford, Univ. of North Carolina.*
- 10:00 WW13 **381.07** Electrophysiological correlates of observing typical and atypical functional grasping. C. PUN*; T. N. WELSH; K. F. VALYEAR; S. FERBER. *Univ. of Toronto, Univ. of Missouri.*
- 11:00 WW14 **381.08** Reference frames for grasping movements: An fMRI repetition suppression study. S. MONACO*; F. LEONÉ; V. N. BUCHHOLZ; I. TONI; K. FIEHLER; D. Y. P. HENRIQUES; P. W. MEDENDORP. *York Univ., Inst. for Brain, Cognition and Behaviour, Univ. of Giessen, Exptl. Psychology.*
- 8:00 WW15 **381.09** Task-free electrocorticography mapping of the motor cortex. M. VANSTEENSEL*; M. G. BLEICHNER; L. T. DINTZNER; E. J. AARNOUTSE; F. S. S. LEIJTEN; D. HERMES; N. F. RAMSEY. *UMC Utrecht-Rudolf Magnus Inst.*
- 9:00 WW16 **381.10** 4D EEG: Temporal and spatial mapping of EEG signals. F. C. VAN DER HELM*; A. C. SCHOUTEN; J. YAO; J. P. A. DEWALD. *Delft Univ. of Technol., Northwestern Univ.*
- 10:00 WW17 **381.11** ● Functional somatotopy across multiple cortical regions revealed using a model of complex visuomotor task. D. A. CUNNINGHAM*; J. HOU; J. R. CAREY; G. H. YUE; A. MACHADO; E. B. PLOW. *Cleveland Clin., Univ. of Minnesota, Kessler Fndn. Res. Ctr., Cleveland Clin., Cleveland Clin.*
- 11:00 WW18 **381.12** Enhanced frontal EEG alpha power revealed by voluntary sequence selection task. Y. KAKIMOTO*; T. SAITOH; N. TAKEDA; Y. NISHIYAMA; O. ARAKI. *Tokyo Univ. of Sci.*
- 8:00 WW19 **381.13** Reproducibility of corticomuscular coherence: A comparison between static and perturbed tasks. F. CAMPFENS*; A. C. SCHOUTEN; M. J. A. M. VAN PUTTEN; H. VAN DER KOOIJ. *Univ. Twente, Delft Univ. of Technol., Medisch Spectrum Twente.*
- 9:00 WW20 **381.14** Decoding coordinate representation of human sensory-motor cortex from fMRI activity patterns. Y. FUJIWARA*; S. TOMATSU; K. KITA; N. HAGURA; G. GOWRISHANKAR; R. OSU; S. KAKEI; J. IZAWA. *ATR, Tokyo Metropolitan Inst. of Med. Sci., Japan Society for the Promotion of Sci. (JSPS), Univ. Col. London, Natl. Inst. of Information and Communication Technol.*
- 10:00 XX1 **381.15** Visual and somatosensory reliability in tool-use motor control. J. C. MIZELLE*; A. OPARAH; L. WHEATON. *Georgia Tech., DVA, Duke Univ.*
- 11:00 XX2 **381.16** Functional anatomy of motor and pain processes in cortical and subcortical networks. S. COOMBES*; G. MISRA. *Univ. of Florida.*
- 8:00 XX3 **381.17** White matter organization in relation to bimanual performance in healthy subjects: Exploring the added value of Diffusion Kurtosis as compared to Diffusion Tensor Imaging. J. GOOIJERS*; A. LEEMANS; S. P. SWINNEN; K. CAEYENBERGHS. *KU Leuven, Univ. Med. Ctr. Utrecht.*
- 9:00 XX4 **381.18** Neural correlates of motor action selection in older adults. J. C. STEWART*; X. TRAN; S. C. CRAMER. *Univ. of California, Irvine.*
- 10:00 XX5 **381.19** Distinct functional contribution of contra- and ipsilateral posterior parietal cortex for reach planning. P. BERNIER*; S. T. GRAFTON. *Univ. De Sherbrooke, Univ. of California Santa Barbara.*
- 11:00 XX6 **381.20** Switching hand movement frequencies requires additional cortical resources: An fNIRS study. N. L. W. KEIJSERS; K. L. M. KOENRAADT; B. M. MEDDELER; J. A. VAN OPSTAL*; J. E. DUYSENS. *Sint Maartensskliniek, Radboud Univ. Nijmegen, Donders Inst. Brain Cogn. Behaviour, Dept. Biophysics, Fac. of Kinesiology and Rehabil. Sciences, K. U. Leuven.*
- 8:00 XX7 **381.21** Brain activity during observation (active and passive) and mental imagery of different postural tasks. W. TAUBE*; M. KELLER; M. MOUTHON; H. HOOGEWOUD; C. LEUKEL; J. ANNONI. *Univ. of Freiburg, Hôpital Cantonal.*
- 9:00 XX8 **381.22** Disentangling causality of corticomuscular coherence within the sensorimotor loop. A. C. SCHOUTEN*; S. F. CAMPFENS. *Delft Univ. Tech., Univ. Twente.*
- 10:00 XX9 **381.23** Decoding movement type and direction in the human brain. S. FABBRI*; L. STRNAD; A. CARAMAZZA; A. LINGNAU. *Univ. of Trento, Western Univ., Harvard Univ.*
- 11:00 XX10 **381.24** Preparatory activity of human sensory-motor network represents types of forthcoming sequential finger movement. I. NAMBU*; N. HAGURA; S. HIROSE; M. KAWATO; E. NAITO. *Nagaoka Univ. of Technol., Natl. Inst. of Information and Communications Technol., Univ. Col. London, ATR Computat. Neuroscience Labs., The Japan Society for the Promotion of Sci., Osaka Univ.*
- 8:00 XX11 **381.25** Grasping with a twist: Decoding action intentions in the human brain using fMRI. T. D. MCADAM*; J. P. GALLIVAN; D. A. MCLEAN; J. C. CULHAM. *Western Univ., Western Univ., Queen's Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 XX12 **381.26** Acute adaptation to enhanced visual feedback causes transient shifts in parietal-frontal circuits related to motor performance. D. E. VAILLANCOURT*; C. POON; D. CORCOS; E. CHRISTOU; S. COOMBES. *Univ. of Florida, Univ. of Illinois at Chicago, Univ. of Florida.*
- 10:00 XX13 **381.27** How do chimpanzees understand others' actions? Brain activation, white matter connectivity, and behavior. E. E. HECHT*; L. E. DAVIS; D. A. GUTMAN; L. A. PARR. *Emory Univ., Emory Univ., Emory Univ., Emory Univ., Emory Univ.*
- 11:00 XX14 **381.28** Changes in effective connectivity for mirror visual feedback in stroke patients. S. H. SALEH*; H. BAGCE; S. ADAMOVIĆ; E. TUNIK. *New Jersey Inst. of Technol., Univ. of Med. and Dent.*
- 11:00 YY2 **382.08** Effects of perinatal lead (Pb) exposure on the neuroendocrine control of puberty onset and estrous cyclicity. K. E. BURRIS; M. J. WEISER; R. J. HANDA; C. D. FORADORI*. *Auburn Univ. Col. of Vet. Med., DSM Nutritional Products, Univ. of Arizona, Col. of Med. – Phoenix.*
- 8:00 YY3 **382.09** Activation of medial preoptic area neurons is associated with stress-induced increase in luteinizing hormone secretion in female rats. R. E. SZAWKA*; R. O. L. SILVA; M. P. BERNUCI; C. R. FRANCI; J. A. ANSELMO-FRANCI. *Univ. Federal De Minas Gerais (UFMG), Univ. de São Paulo, Univ. de São Paulo.*
- 9:00 YY4 **382.10** GPR54-dependent stimulation of luteinizing hormone secretion by neurokinin B in prepubertal rats. P. GRACHEV*; X. LI; Y. LIN; M. HU; R. P. MILLAR; S. L. LIGHTMAN; K. T. O'BYRNE. *Sch. of Medicine, King's Col. London, Univ. of Edinburgh, Univ. of Pretoria, Fac. of Hlth. Sciences, Univ. of Cape Town, Univ. of Bristol.*
- 10:00 YY5 **382.11** Phenotypic characterization of RFamide-related peptide 3 (RFRP-3) and GPR147 neurons in mice. M. C. POLING*; A. S. KAUFFMAN. *UC San Diego.*
- 11:00 YY6 **382.12** Stereologic analysis of estrogen receptor alpha, gper and progesterone receptor in the hypothalamus of female rhesus macaques: Regulation by aging and estrogen. M. M. NAUGLE*; L. T. NGUYEN; C. X. TRAN; A. C. GORE. *Univ. of Texas At Austin, Univ. of Texas At Austin, Univ. of Texas At Austin.*
- 8:00 YY7 **382.13** Critical role of estrogen receptor alpha but not beta in mediating estrogen negative feedback using conditional promoter transgenics. R. Y. CHEONG*; R. PORTEOUS; I. M. ABRAHAM; A. E. HERBISON. *Univ. of Otago.*

POSTER

382. HPG Axis: GnRH Neurons and Gonadotropins - Neural Control I

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 XX15 **382.01** Ventromedial hypothalamic glucose sensing neurons are sexually dimorphic and inhibited by 17 β -estradiol. A. M. SANTIAGO*; Z. SHENG; J. G. POTIAN; D. J. CLEGG; V. H. ROUTH. *New Jersey Med. Sch., UT Southwestern Med. Ctr.*
- 9:00 XX16 **382.02** Distribution and sequence of Gonadotropin inhibitory hormone and its potential role as a molecular link between feeding and reproductive systems in the Pekin duck. G. S. FRALEY*; E. COOMBS; E. GEROMETTA; Q. LI; P. SHARP; I. CLARKE. *Hope Col., Hope Col., Monash Univ., Roslin Inst.*
- 10:00 XX17 **382.03** The maintenance of reproductive status in pekin drakes requires both red and blue wavelengths of light: Elationship to opsin-related proteins in the hypothalamus. R. J. HAAS*; S. KANG; P. J. SHARP; M. BAKST; W. J. KUENZEL; G. S. FRALEY. *Hope Col., Univ. of AK, Univ. of Edinburgh, United States Dept. of Agr.*
- 11:00 XX18 **382.04** Investigating gonadal steroid hormone feedback in a mouse model of polycystic ovarian syndrome. A. M. MOORE; M. PRESCOTT; R. E. CAMPBELL*. *Univ. Otago, Ctr. Neuroendocrinol.*
- 8:00 XX19 **382.05** Altered hypothalamic gonadal steroid hormone receptor expression in a mouse model of polycystic ovarian syndrome. R. E. CAMPBELL; M. PRESCOTT; S. S. CONSTANTIN*; A. M. MOORE. *Univ. of Otago, Univ. of Otago, Univ. of Otago.*
- 9:00 XX20 **382.06** The effects of unilateral or bilateral section of the vagus nerve to cyclic rats on spontaneous ovulation depend on the hours and the day of surgery. P. M. EVERARDO; M. G. GUZMÁN; D. P. BENÍTEZ; E. BONILLA; M. CRUZ; A. FLORES; R. DOMÍNGUEZ*. *FES Zaragoza UNAM.*
- 10:00 YY1 **382.07** Does ovarian dopamine involved in the regulation of ovarian function and spontaneous ovulation in the adult rat? B. VENEGAS MENESES*; J. F. PADILLA; C. E. JUÁREZ; J. L. MORÁN PERALES; C. MORÁN RAYA; A. HANDAL SILVA; N. H. ROSAS-MURRIETA; R. DOMÍNGUEZ CASALÁ. *Benemerita Univ. Autónoma De Puebla, Benemerita Univ. Autónoma de Puebla, FES Zaragoza UNAM.*

POSTER

383. Steroids and Plasticity

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 YY8 **383.01** ● Hippocampus-synthesized estrogen and androgen rapidly modulate LTP and dendritic spines. S. KAWATO*; Y. HOJO; H. MUKAI; Y. OOISHI. *Univ. of Tokyo.*
- 9:00 YY9 **383.02** G protein-coupled estrogen receptor 1 (GPER1) is anatomically positioned to mediate synaptic plasticity in the mouse hippocampus. E. M. WATERS*; L. I. THOMPSON; P. PATEL; A. GONZALES; Z. YE; E. J. FILARDO; D. J. CLEGG; K. T. AKAMA; B. S. MCEWEN; T. A. MILNER. *Rockefeller Univ., Weill Cornell Med. Col., Brown Univ., UT Southwestern.*
- 10:00 YY10 **383.03** Post-translational modifications of extranuclear estrogen receptor α in the hippocampus. N. TABATADZE*; T. SMEJKALOVA; C. S. WOOLLEY. *Northwestern Univ.*
- 11:00 YY11 **383.04** Infusion of an aromatase inhibitor into the hippocampus acutely suppresses kainic acid-induced seizures in rats. S. M. SATO*; A. F. MCCOLLUM; M. J. MAGDA; R. M. MAY; C. S. WOOLLEY. *Northwestern Univ.*
- 8:00 YY12 **383.05** Androgens increase survival of adult born neurons in the hippocampus via a cell non-autonomous mechanism that requires the androgen receptor. D. K. HAMSON*; S. R. WAINWRIGHT; J. TAYLOR; B. A. JONES; N. V. WATSON; L. A. M. GALEA. *Univ. of British Columbia, Univ. of British Columbia, Simon Fraser Univ.*

- 9:00 YY13 **383.06** Ovarian hormone levels modulate antidepressant-induced cell proliferation in the dentate gyrus. M. M. ROES*; M. FOISY; M. Y. M. CHAN; S. E. LIEBLICH; L. A. M. GALEA. *Univ. of British Columbia*.
- 10:00 YY14 **383.07** Effects of 17 β -estradiol on zinc content of hippocampal mossy fibers through the estrous cycle and in ovariectomized adult rats. E. PADILLA*; V. BELTRÁN-CAMPOS; S. MONTES; G. L. QUIRANTE; A. DÍAZ-RUIZ; C. RÍOS; S. DÍAZ-CINTRA. *Inst. Neurol. Inst. Nacional de Neurología y Neurocirugía*.
- 11:00 YY15 **383.08** Interactive effects of cortisol and cytokines: Association with hippocampal volume and cognitive function. K. D. SUDHEIMER*; R. O'HARA; D. SPIEGEL; B. POWERS; H. KRAEMER; E. NERI; M. WEINER; A. HARDAN; J. HALLMAYER; F. DHABHAR. *Stanford Univ., Univ. of California, San Francisco, Stanford Univ.*
- 8:00 YY16 **383.09** Effects of androgen on dendritic spine plasticity in the adult male rat hippocampus. C. E. PARRATT; A. MENDELL; H. E. SCHARFMAN; N. J. MACLUSKY*. *Univ. of Guelph, The Nathan Kline Inst. for Psychiatric Res., New York Univ. Langone Med. Ctr.*
- 9:00 YY17 **383.10** • Ovarian hormones rescue neurogenesis by dampening brain inflammation. A. A. MOUIHATE*. *Kuwait Univ.*
- 10:00 YY18 **383.11** Presynaptic neurotransmission in HVC neurons is potently inhibited by androgens in the adult male zebra finch. C. J. SALDANHA*; L. A. TREMERE; D. J. BAILEY; R. PINAUD. *American Univ., NORTHWESTERN UNIVERSITY, ST. NORBERT COLLEGE*.
- 11:00 YY19 **383.12** The anabolic steroid 17 α -methyltestosterone modulates cancer-related proteins in the hypothalamic GT1-7 cell line. M. E. SANTIGO GASCOT; F. MARTÍNEZ RIVERA; J. PÉREZ LASPIUR; Y. RODRÍGUEZ PÉREZ; J. SOSA; J. L. BARRETO ESTRADA*. *Univ. Puerto Rico, Med. Sci. Campus, Univ. Puerto Rico, Med. Sci. Campus, Univ. del Este*.
- 8:00 YY20 **383.13** Membrane androgen receptors and oxidative stress: Neuroprotection vs. neurotoxicity in dopaminergic neurons. B. ABBASSI; C. SU; M. SINGH; R. L. CUNNINGHAM*. *Univ. of North Texas Hlth. Sci. Ctr., Univ. North Texas Hlth. Sci. Ctr.*
- 9:00 ZZ1 **383.14** Combined effects of testosterone and dehydroepiandrosterone on cortical thickness. T. NGUYEN*; J. MCCracken; S. DUCHARME; K. BOTTERON; A. C. EVANS; S. KARAMA. *McGill Univ., Univ. of California in Los Angeles, McGill Univ., Washington Univ., McGill Univ.*
- 10:00 ZZ2 **383.15** Expression of the plasma-membrane associated g protein-coupled receptor, gpr30, in the brain of the goldfish, *carassius auratus*. T. M. SZABO*; J. WHITE. *Delaware State Univ., Delaware State Univ.*
- 11:00 ZZ3 **383.16** Rapid effects of estrogen receptor activation on signaling pathways & ER α phosphorylation in murine hypothalamic cells. J. R. RAINVILLE*; T. E. GURLEY, III; S. C. KELLY; E. R. LANDERS; N. VASUDEVAN. *Tulane Univ.*
- 8:00 ZZ4 **383.17** ▲ Rapid signaling responses to selective estrogen receptor activation in murine hypothalamic cells. A. JUSTEN; V. VALSARAJ; J. RAINVILLE; N. VASUDEVAN*. *Tulane Univ., Tulane Univ., Tulane Univ.*
- 9:00 ZZ5 **383.18** Role of GPR30 activation in anxiety in male and female mice. S. M. CLARK*; D. A. HART; M. NILGES; K. J. POLLARD; H. G. MEJIA MORALES; N. VASUDEVAN. *Tulane Univ., Tulane Univ., Tulane Univ.*
- 10:00 ZZ6 **383.19** Adult-onset thyroid conditions, cognition, and anxiety in the male C57BL/6 mouse. J. BATTLE*; A. BURAS; T. WONG; J. CHAWLA; M. REES; N. VASUDEVAN. *Tulane University, Tulane University*.
- 11:00 ZZ7 **383.20** Estrogen-induced plasticity in glutamatergic inputs to Kiss1 neurons in the mouse. C. M. MERKLEY*; R. FRAZAO; L. M. COOLEN; D. J. CLEGG; C. F. ELIAS; M. N. LEHMAN. *Univ. of Michigan, Univ. of Texas Southwestern Med. Ctr., Univ. of Michigan*.
- 8:00 ZZ8 **383.21** • Development of allopregnanolone as a therapeutic for Parkinson's disease in neurotoxin symptomatic and idiopathic mouse models. J. WANG*; S. ADEOSUN; X. HOU; B. ZHENG; C. STOCKMEIER; I. PAUL; X. OU; S. BIGLER; R. SMEYNE; R. BRINTON; H. MELROSE; J. LEWIN. *Univ. Mississippi Med. Cent, Univ. Mississippi Med. Cent, Univ. Mississippi Med. Cent, Univ. Mississippi Med. Cent, Univ. Mississippi Med. Cent, St. Jude Children's Res. Hosp., Univ. of Southern California, Mayo Clin. Jacksonville*.
- 9:00 ZZ9 **383.22** Octodon degus exhibit sex-dependent shifts across puberty in a biomarker for prenatal steroid hormone exposure. D. B. MCQUADE*; E. STANSKY; J. POWER. *Skidmore Col., Skidmore Col.*

POSTER

384. Sexual Differentiation

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 ZZ10 **384.01** CREB-CBP interactions play a role in sexually dimorphic estradiol neuroprotection. D. N. BRYANT*; D. M. DORSA. *Oregon Hlth. & Sci. Univ., Univ. of Wisconsin-Eau Claire*.
- 9:00 ZZ11 **384.02** The organizational and aromatization hypotheses apply to rapid, non-classical hormone action: neonatal masculinization eliminates rapid estradiol action in female hippocampal neurons. J. MEITZEN*; P. G. MERMELSTEIN. *Univ. of Minnesota*.
- 10:00 ZZ12 **384.03** Neonatal exposure to 17 α -ethinylestradiol alters the calbindin-immunoreactive cell aggregates in the preoptic area of the mice. M. YOKOSUKA*; H. ADACHI; T. NAKADA; T. SAITO. *Nippon Vet & Life Sci. Univ.*
- 11:00 ZZ13 **384.04** Developmental expression of ER α in SNB target muscle is upregulated by castration and confers estrogen-sensitivity to SNB motoneuron dendrites. L. M. RUDOLPH*; D. R. SENGELAUB. *Indiana Univ.*
- 8:00 ZZ14 **384.05** The suppression of estrogen receptor alpha (ER α) in the mouse bed nucleus of the stria terminalis by testicular hormones is rapidly reversible and aromatase-dependent. D. A. KELLY*; N. G. FORGER. *Univ. of Massachusetts, Univ. of Massachusetts, Georgia State Univ.*
- 9:00 ZZ15 **384.06** Epigenetic modifications during brain sexual differentiation. N. GHAHRAMANI*; T. NGUN; P. CHEN; S. KRISHNAN; S. MUIR; T. TESLAA; H. BARSEGHYAN; F. AVANESYAN; M. PELLEGRINI; A. ARNOLD; G. DE VRIES; N. FORGER; E. VILAIN. *UCLA, UCLA, UCLA, UCLA, UMass*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 ZZ16 **384.07** Expression of methylation-dependent and -independent masculinization and feminization genes in the preoptic area (POA) during sexual differentiation of the rat brain. B. M. NUGENT*; M. M. MCCARTHY. *Univ. of Maryland, Sch. of Med., Univ. of Maryland, Sch. of Med.*
- 11:00 ZZ17 **384.08** Microglia are essential to prostaglandin production and sexual differentiation of the preoptic area. K. M. LENZ*; M. M. MCCARTHY. *Univ. of Maryland Sch. of Med.*
- 8:00 ZZ18 **384.09** Epigenetic modification of the vasopressin promoter corresponds to the sex difference in expression within the rat amygdala. R. M. FORBES-LORMAN*; T. P. LODUCA; A. P. AUGER; C. J. AUGER. *UW-Madison.*
- 9:00 ZZ19 **384.10** DISC1 knockdown in the rat amygdala alters expression of genes conferring risk for schizophrenia. H. J. WHITE*; H. M. JESSEN; D. C. GOODING; C. J. AUGER; A. P. AUGER. *Univ. of Wisconsin Madison.*
- 10:00 ZZ20 **384.11** The importance of maternal touch on hypothalamic gene expression and neonatal weight gain. S. L. KIGAR*; M. N. EDELMANN; C. H. DEMERS; A. P. AUGER. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*
- 11:00 AAA1 **384.12** Down, but not out: Partial elimination of androgen receptor in the brain fails to affect anxiety. C. CHEN*; J. L. BRUMMET; C. L. JORDAN; S. M. BREEDLOVE. *Michigan State Univ.*
- 8:00 AAA2 **384.13** Species differences in androgen receptor expression in the preoptic and anterior hypothalamic areas of the adult male rats and mice. M. R. JAHAN*; K. KOKUBU; C. MATSUO; R. FUJINAGA; A. YANAI; T. WATANABE; M. N. ISLAM; K. SHINODA. *Yamaguchi Univ. Grad. Sch. of Med.*
- 9:00 AAA3 **384.14** Sex-differential, developmentally-dependent gene expression patterns in fetal and adult human brain. D. M. WERLING*; N. N. PARIKSHAK; D. H. GESCHWIND. *UCLA, UCLA, UCLA.*
- 10:00 AAA4 **384.15** The effects of organizational gonadal hormones on the ontogeny of sex differences in stress responsive brain regions using CRH, GR, MR and GABAergic markers. A. D. GREEN*; T. S. PERROT. *Dalhousie Univ.*
- 11:00 AAA5 **384.16** ▲ Egg-laying zebra finch exhibiting complete masculine plumage: A histological analysis of its neural song system. X. CUI; Y. ITOH; B. A. SCHLINGER; L. SALWICZEK; A. CHAO; W. E. GRISHAM*. *UCLA, UCLA, UCLA, UCLA.*
- 8:00 AAA6 **384.17** Kiss1 gene is needed for defeminization of sexual behavior in rats. S. NAKAMURA; Y. UENOYAMA; K. IKEGAMI; J. TOMIKAWA; T. GOTO; C. TAMURA; M. SAMBO; M. HIRABAYASHI; K. MAEDA; H. TSUKAMURA*. *Nagoya Univ., Natl. Inst. for Physiological Sci., JST ERATO, Nakauchi Stem Cell and Organ Regeneration Project.*
- 9:00 AAA7 **384.18** Hypothalamic Kiss1: A developmental study in Steroidogenic factor 1 knockout mice. T. BUDEFELD*; S. TOBET; G. MAJDIC. *Vet. Faculty/University of Ljubljana, Dept. of Biomed. Sciences, Colorado State Univ., Med. School, Univ. of Maribor.*
- 10:00 AAA8 **384.19** Bisphenol A does not modify the development of a sexually dimorphic pool of motor neurons, but significantly alters their soma size in adulthood. B. A. JONES; L. S. WAGNER; C. GERSON; N. V. WATSON*. *Simon Fraser Univ.*
- 11:00 AAA9 **384.20** Sex-specific epigenetic disruption and behavioral changes following low-dose *in utero* Bisphenol A exposure. M. KUNDAKOVIC*; K. GUDSNUK; F. P. PERERA; R. L. MILLER; F. A. CHAMPAGNE. *Columbia Univ., Columbia Univ.*

POSTER

385. Social Behavior III: Gene Expression and Other Variables

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 AAA10 **385.01** Social transitions cause rapid behavioral, endocrine, and transcriptional changes in the brain of an African cichlid fish. K. P. MARUSKA*; A. NEBOORI; L. BECKER; A. ZHANG; R. D. FERNALD. *Stanford Univ.*
- 9:00 AAA11 **385.02** Evolutionary convergence of gene modules regulating social systems. L. A. O'CONNELL*; B. M. GOETZ; A. J. MOORE; S. M. PHELPS; T. SZÉKELY; B. C. TRAINOR; H. A. HOFMANN. *Univ. of Texas At Austin, Univ. of Georgia, Univ. of Bath, Univ. of California-Davis.*
- 10:00 AAA12 **385.03** Social interactions reduce fear in fish. A. S. MATHURU*; J. HUANG; R. CHENG; C. KIBAT; T. B. PENNEY; A. SCHIRMER; S. J. JESUTHASAN. *Neurosci. Res. Partnership, Biomed. Sci. Inst., Natl. Univ. of Singapore, Biomed. Sci. Inst.*
- 11:00 AAA13 **385.04** ▲ Differential signal modulation in response to social environment: Prospective mates and competitors drive enhancement of distinct signal features in the electric fish, *Brachyhyppopomus gauderio*. J. P. ROACH*; S. GAVASSA; P. K. STODDARD. *Florida Intl. Univ.*
- 8:00 AAA14 **385.05** Mechanisms of extreme behavioral plasticity: Brain gene expression profiling in male alternative reproductive phenotypes of the teleost fish *Salaria pavo*. D. GONÇALVES*; S. CARDOSO; R. F. OLIVEIRA; A. V. M. CANÁRIO. *ISPA-IU, Univ. of St. Joseph, Inst. for Advanced Studies, CCMAR, Univ. of the Algarve, Champalimaud Neurosci. Programme, Inst. Gulbenkian de Ciência.*
- 9:00 AAA15 **385.06** Social defeat causes dysregulation of the HPA axis, which contributes to depression-like behavior in mice. S. M. MILLER*; J. L. MAGUIRE. *Tufts Univ. Sch. of Med.*
- 10:00 AAA16 **385.07** ● Toward a better understanding of social reward: Roles of experience, status, aggressivity, and associated neural activation in the ventral tegmental area. M. GIL*; N. NGUYEN; M. MCDONALD; H. E. ALBERS. *Georgia State Univ.*
- 11:00 AAA17 **385.08** Ontogeny of play fighting in a non-social species, golden hamsters. L. FERGUSON*; S. L. ZELIKOFF; Y. DELVILLE. *Univ. of Texas At Austin.*
- 8:00 AAA18 **385.09** Rats cooperate in the absence of direct benefit: Development of a new behavioural task. C. MARQUEZ*; M. MOITA. *Champalimaud Fndn.*
- 9:00 AAA19 **385.10** A functional imaging study of "jealousy" in captive male titi monkeys (*Callicebus cupreus*). N. MANINGER; S. P. MENDOZA; T. J. SCHAEFER; W. A. MASON; S. R. CHERRY; K. L. BALES*. *California Natl. Primate Res. Ctr., Ctr. for Mol. and Genomic Imaging, UC-Davis, Univ. of California.*

- 10:00 AAA20 **385.11** Exercise facilitates pair bonding in prairie voles. W. KENKEL*; G. SUBOC; S. CARTER. *Univ. Illinois At Chicago*.
- 11:00 BBB1 **385.12** ▲ Effect of social isolation on cellular proliferation in the California mouse. S. B. KING; M. P. DIAMOND; M. G. RUSCIO*. *Col. of Charleston, Col. of Charleston*.
- 8:00 BBB2 **385.13** Photoperiodic regulation of non-genomic effects of estradiol on aggression. S. A. LAREDO*; R. VILLALON LANDEROS; V. ORR; A. L. SILVA; J. C. DOOLEY; K. K. CREAN; M. Q. STEINMAN; B. C. TRAINOR. *Univ. of California Davis, Univ. of California Davis, Univ. of California Davis, Univ. of California Davis, Univ. of California Davis*.
- 9:00 BBB3 **385.14** Changes in biogenic amines correlate with time of day, light cycle, age and aggressive state. V. L. FREGOSO*; M. PHILLIPS; X. LU; A. LUNDY; E. SEIER; K. H. JOPLIN; T. C. JONES; D. MOORE. *East Tennessee State Univ., East Tennessee State Univ., East Tennessee State Univ.*
- 10:00 BBB4 **385.15** Full masculinization of aggressive behavior is dependent on AR and circulating androgens in mice. J. L. BRUMMET*; C. L. JORDAN; S. BREEDLOVE. *Michigan State Univ., Michigan State Univ.*
- 11:00 BBB5 **385.16** Oxytocin decouples aggression from anxiety through its influence on the serotonergic system. J. H. PAGANI*; J. SENERTH; Z. CUI; M. H. BAUMANN; S. YOUNG. *NIMH, NIDA, NIH, DHHS*.
- 8:00 BBB6 **385.17** Serotonin as a mediator of aggression in the stalk-eyed fly. A. BUBAK*; J. G. SWALLOW; K. J. RENNER. *Univ. of South Dakota*.
- 9:00 BBB7 **385.18** Interaction of early childhood stress with low levels of MAO A activity result in aggression in mice. M. BORTOLATO*; S. C. GODAR; V. BINI; S. TAMBARO; J. C. SHIH. *Univ. Southern California, Univ. of Cagliari*.
- 10:00 BBB8 **385.19** NMDA receptors mediate the role of monoamine oxidase A in pathological aggression. S. C. GODAR*; M. BORTOLATO; M. MELIS; A. SOGGIU; P. RONCADA; A. CASU; G. FLORE; K. CHEN; R. FRAU; A. URBANI; M. CASTELLI; P. DEVOTO; J. C. SHIH. *USC, Univ. of Cagliari, Inst. Sperimentale Italiano Lazzaro Spallanzani, Santa Lucia Foundation-IRCCS*.
- 11:00 BBB9 **385.20** Increased Fos expression in the basolateral amygdala and CA1 of C57BL/6 mice exposed to acute social defeat and olfactory cues. A. R. BOURNE; G. MOHAN; M. F. STONE; M. Q. PHAM; C. R. SCHULTZ; L. A. LUMLEY*. *USAMRICD*.
- 10:00 BBB12 **386.03** MPL causes prolonged activation of GR in discrete brain regions known to regulate memory and learning processes. R. C. DEMSKI-ALLEN*; E. J. WAITE; B. P. FLYNN; E. C. WARBURTON; S. L. LIGHTMAN; B. L. CONWAY-CAMPBELL. *Univ. of Bristol, Univ. of Bristol*.
- 11:00 BBB13 **386.04** Long-term changes in GR, CRH and CRHR1 expression in the hypothalamus and the hippocampus following global cerebral ischemia in rats: Relationship to functional impairments. P. BARRA DE LA TREMBLAYE*; M. R. MILOT; H. PLAMONDON. *Univ. of Ottawa*.
- 8:00 BBB14 **386.05** Genetic x epigenetic interaction affecting hippocampal-specific allelic expression of the imprinted Dio3 gene: Evidence for a genetic cause and anxiety-like behavioral consequences. L. J. SITTIG*; E. E. REDEI. *Northwestern Univ., Northwestern Univ.*
- 9:00 BBB15 **386.06** Menstrual phase is associated with differences in brain activity during psychosocial stress. K. ALBERT*; J. PRUESSNER; T. RABINOWITZ; P. A. NEWHOUSE. *Univ. of Vermont, Vanderbilt Univ., McGill Univ.*
- 10:00 BBB16 **386.07** Chronic corticosterone alters activation of newborn hippocampal neurons after spatial memory retrieval. J. L. WORKMAN*; M. Y. T. CHAN; L. A. M. GALEA. *Univ. of British Columbia*.
- 11:00 BBB17 **386.08** The effects of Bisphenol-A exposure on anxiety and sucrose preference in adolescent rats. S. E. DIAZ; J. J. VILLAFANE; N. JULIANO; M. FRANKFURT*; R. E. BOWMAN. *Sacred Heart Univ., Hofstra North Shore-LIJ Sch. of Med.*
- 8:00 BBB18 **386.09** Developmental Bisphenol A (BPA) treatment does not alter specific sexually dimorphic behaviors in adult Sprague-Dawley rats. S. A. FERGUSON*; C. D. LAW; J. ABSHIRE. *Natl. Ctr. Toxicological Res.*
- 9:00 BBB19 **386.10** Effects of exposure to bisphenol A during gestation and early postnatal development on adult behavior on the radial arm maze. R. N. SADOWSKI*; P. Y. PARK; S. NEESE; S. L. SCHANTZ; J. M. JURASKA. *Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign*.
- 10:00 BBB20 **386.11** Effects of exposure to bisphenol A during adolescence on the radial arm maze in adulthood. L. M. WISE*; R. N. SADOWSKI; S. L. SCHANTZ; J. M. JURASKA. *Univ. of Illinois, Univ. of Illinois, Univ. of Illinois, Univ. of Illinois*.
- 11:00 BBB21 **386.12** ▲ Administration of a luteinizing hormone homologue to the ventricles, the prefrontal cortex or the dorsal hippocampus impairs spatial memory in ovariectomized estradiol-treated rats. C. S. SUNDBY; A. LAMAN-MAHARG; K. WITCHER; B. STEWART; J. E. THORNTON*. *Oberlin Col.*
- 8:00 BBB22 **386.13** Peripheral luteinizing hormone effects cognition associated areas by regulating brain luteinizing hormone levels. J. A. BLAIR*; R. PALM; Y. GARCIA; J. CHANG; H. LEE; X. ZHU; G. CASADESUS. *Case Western Reserve Univ.*
- 9:00 BBB23 **386.14** ▲ Maternal subclinical hypothyroidism does not affect the anxiety state, neither sociability nor locomotion in the offspring rats. F. O. RAMOS*; M. O. RIBEIRO; R. M. CYSNEIROS. *Mackenzie Presbyterian Univ.*

POSTER

386. Hormones and Cognition II: Stress, EDC's, LH

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 BBB10 **386.01** Stress and politics: HPA function is associated with variation in voting behavior. J. FRENCH*; K. B. SMITH; A. K. BIRNIE; J. HIBBING. *University of Nebraska At Omaha, Univ. of Nebraska, Lincoln, University of Nebraska At Omaha*.
- 9:00 BBB11 **386.02** Sex and sex hormone influences on retention of emotional gist and detail. S. E. NIELSEN*; L. CAHILL. *Univ. of California, Irvine, Univ. of California, Irvine*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

387. Autonomic Control of Cardiovascular Functions I

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 BBB24 **387.01** ● Distribution of angiotensin type 1a receptor containing cells in the brains of bacterial artificial chromosome transgenic mice. T. A. MILNER*; A. D. GONZALEZ; G. WANG; E. M. WATERS; K. L. GONZALES; R. C. SPETH; T. A. VAN KEMPEN; J. MARQUES-LOPES; C. IADECOLA; V. M. PICKEL; J. P. PIERCE. *Weill Cornell Med. Coll., The Rockefeller Univ., Nova Southeastern Univ.*
- 9:00 BBB25 **387.02** Changes in NMDA receptor density in Corticotropin Releasing Factor type 1 receptor-containing paraventricular neurons following slow-pressor angiotensin II hypertension. T. A. VAN KEMPEN*; J. MARQUES-LOPES; D. A. LANE; N. J. JUSTICE; C. IADECOLA; T. A. MILNER; V. M. PICKEL. *Weill Cornell Med. Col., Baylor Col. of Med., The Rockefeller Univ.*
- 10:00 BBB26 **387.03** Effort and the central pressor response during human standing. R. C. FITZPATRICK*; B. L. LUU. *Neurosci. Res. Australia.*
- 11:00 BBB27 **387.04** Changes in post-synaptic NMDA receptor trafficking in the hypothalamic paraventricular nucleus are associated with an increased susceptibility to angiotensin-II hypertension in a mouse model of menopause. J. MARQUES LOPES*; T. A. VAN KEMPEN; P. CHATANI; S. D. BUTLER; C. N. YOUNG; V. M. PICKEL; C. IADECOLA; E. M. WATERS; R. L. DAVISSON; T. A. MILNER. *Weill Cornell Med. Col., Weill Cornell Med. Col., Col. of Vet. Medicine, Cornell Univ., The Rockefeller Univ.*
- 8:00 BBB28 **387.05** COX1 immunolabeling in the central subfornical organ is highly concentrated in AT1R-expressing neuronal postsynaptic processes. J. P. PIERCE*; A. GONZALEZ; T. A. MILNER; C. IADECOLA; V. M. PICKEL; R. L. DAVISSON. *Weill Cornell Med. Col., Weill Cornell Med. Col., Cornell Univ.*
- 9:00 BBB29 **387.06** Microinjections of urocortin1 into the hypothalamic arcuate nucleus (ARCN) of the rat elicit sympathoinhibitory responses. V. C. CHITRAVANSI*; H. N. SAPRU. *New Jersey Med. Sch, UMDNJ, UMDNJ-New Jersey Med. Sch.*
- 10:00 BBB30 **387.07** Autonomic changes during surgery on cerebellopontine angle tumors under two different anesthetic techniques evaluated using Heart Rate Variability. G. CHAITANYA*; T. N. SATHYAPRABHA; V. BHADRINARAYAN; B. INDIRA DEVI; T. R. RAJU; G. S. UMAMAHESWARA RAO. *Natl. Inst. of Mental Hlth. and Neurosciences (NIMHANS), Natl. Inst. of Mental Hlth. and Neurosciences (NIMHANS), Natl. Inst. of Mental Hlth. and Neurosciences (NIMHANS), Natl. Inst. of Mental Hlth. and Neurosciences (NIMHANS).*
- 11:00 BBB31 **387.08** Adaptive single neuron hypertensive gene expression programs in the nucleus tractus solitarius. A. Y. BRUREAU*; J. PARK; R. VADIGEPALLI; J. PATON; J. SCHWABER. *Thomas Jefferson University, Chem. and Biomolecular Engin. Univ. of Delaware, Univ. of Bristol.*
- 8:00 BBB32 **387.09** ▲ Cardiovascular effects of the administration of hydrogen peroxide or catalase inhibitor in renovascular hypertensive rats. M. R. LAUAR; G. T. BLANCH; P. M. DE PAULA; D. S. A. COLOMBARI; E. COLOMBARI; J. MENANI*. *UNESP.*
- 9:00 BBB33 **387.10** Cardiovascular responses to central injections of tityustoxin in Wistar rats. F. C. SILVA*; C. H. XAVIER; R. C. A. DE MENEZES; P. A. M. GUIDINE; D. A. CHIANCA-JR. *Federal Univ. of Ouro Preto, Federal Univ. of Minas Gerais.*
- 10:00 BBB34 **387.11** Persistent activation of the autonomic regions by angiotensin ii: an *in vivo* manganese enhanced MRI study in the rat. P. D. PEREZ*; J. ZUBCEVIC; J. JUN; J. M. CARVAJAL; M. K. RAIZADA; M. FEBO. *Univ. of Florida, Univ. of Florida.*
- 11:00 BBB35 **387.12** The hypothalamic Neuropeptide FF (NPFF) system is impaired in hypertensive patients. V. D. GONCHARUK; R. M. BUIJS; D. F. SWAAB; J. H. JHAMANDAS*. *Russian Cardiol. Res. Ctr., Inst. de Investigaciones Biomedicas, Univ. Nacional Autonoma de Mexico, Netherlands Inst. for Neurosci., Univ. of Alberta.*
- 8:00 BBB36 **387.13** Water drinking-induced bradyarrhythmia in Dahl Salt Sensitive rat with sinoaortic denervation. C. ABE*; C. IWATA; H. MORITA. *Gifu Univ. Grad. Sch. of Med.*
- 9:00 BBB37 **387.14** ● Quantification of stress by fluctuation analysis of heartbeat-interval time series. T. YAZAWA*. *Tokyo Metropolitan Univ.*
- 10:00 BBB38 **387.15** Role of the bed nucleus of the stria terminalis in cardiovascular changes induced by repeated administration of testosterone and cocaine in rats. C. CRESTANI*; F. C. CRUZ; F. H. F. ALVES; R. M. LEÃO; F. M. A. CORREA; C. S. PLANETA. *São Paulo State University, Sch. of Pharmaceut. Sciences., Sch. of Pharmaceut. Sci. of Araraquara, São Paulo State University-UNESP, Araraquara, SP, Brazil., Sch. of Med. of Ribeirão Preto, Univ. of São Paulo, Ribeirão Preto, São Paulo, Brazil.*
- 11:00 BBB39 **387.16** Electrophysiological characterization of kidney-related presympathetic neurons in the paraventricular nucleus of mice. Y. JIANG*; H. GAO; A. V. DERBENEV; A. ZSOMBOK. *Tulane Univ., Tulane Univ.*
- 8:00 BBB40 **387.17** Development of neurons containing different types of calcium-binding proteins in the rat sympathetic ganglia. P. M. MASLYUKOV*; A. EMANUILOV; V. KONOVALOV; A. N. BAIRAMOVA. *Yaroslavl Med. Acad.*
- 9:00 BBB41 **387.18** Pharmacological characterization of the D2-like receptors mediate the inhibition of the cardioaccelerator sympathetic outflow in pithed rats. O. ALCÁNTARA VÁZQUEZ DEL MERCADO*; M. T. VILLAMIL-HERNÁNDEZ; E. MORENO-VÁZQUEZ; A. SÁNCHEZ-LÓPEZ; D. CENTURIÓN. *CINVESTAV-IPN.*
- 10:00 BBB42 **387.19** Pharmacological characterization of alpha2-adrenoceptor subtypes mediating inhibition of sympathetic vasopressor responses to B-HT 933 in pithed rats. M. T. VILLAMIL HERNÁNDEZ*; O. ALCÁNTARA-VÁZQUEZ; E. MORENO-VÁZQUEZ; A. SÁNCHEZ-LÓPEZ; D. CENTURIÓN. *CINVESTAV-IPN.*

POSTER

388. Early Life Experience: Prenatal Stress, Maternal Effects

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

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 BBB43 **388.01** Role for sex hormones in prenatal stress-induced programming of preference to natural reward. M. REYNAERT*; G. VAN CAMP; A. MULLIER; J. MARROCCO; H. BOUWALERH; J. MAIRESSE; S. MACCARI; F. NICOLETTI; S. MORLEY-FLETCHER. *Univ. Lille 1, IRRCS, Neuromed, Dept. of Physiol. and Pharmacology, Univ.*
- 9:00 BBB44 **388.02** Oxytocin, a potent anti-stress in adult prenatally stressed rats, an animal model of depression. J. MAIRESSE*; M. SOICHOT; M. REYNAERT; J. MARROCCO; L. DERUYTER; S. MORLEY-FLETCHER; E. GATTA; G. VAN CAMP; H. BOUWALERH; D. ALLORGE; F. NICOLETTI; S. MACCARI. *UMR8576, UGSF, Univ. of Lille 1, Faculté de Médecine de Lille, UDSL, IRRCS, Neuromed, Dept. of Physiol. and Pharmacol.*
- 10:00 BBB45 **388.03** ▲ “Grandmother” transgenerational transmission of the prenatal stress phenotype in rats. S. MACCARI*; Prof; J. MAIRESSE; M. DARNAUDERY; J. MARROCCO; H. LEGER; A. BENECKE; F. MATRISCIANO; F. NICOLETTI; S. MORLEY-FLETCHER. *Neuroplasticity Team Umr8576 CNRS Univ. Lille1, INRA UMR 1286 and CNRS UMR 5226, Systems Epigenomics Group - Inst. des Hautes Etudes Scientifiques/CNRS, 4The Psychiatric Institute, Dept. of Psychiatry, Col. of Medicine, Dept of Physiol and Pharmacol, I.R.R.C.S. Neuromed.*
- 11:00 BBB46 **388.04** Prenatal dexamethasone impacts the blood vessels within the paraventricular nucleus of the hypothalamus. K. A. FRAHM*; M. DODD; M. J. SCHOW; V. PUTKARADZE; S. A. TOBET. *Colorado State Univ., Colorado State Univ., Colorado State Univ., Colorado State Univ.*
- 8:00 BBB47 **388.05** Maternal stress exacerbates the effects of prenatal air pollution exposure on offspring cytokine expression and behavior in a sex-specific manner. J. L. BOLTON*; N. C. HUFF; S. H. SMITH; R. S. MISTRY; E. N. POTTS-KANT; R. L. AUTEN; S. D. BILBO. *Duke Univ., Duke Univ. Med. Ctr., Duke Univ. Med. Ctr.*
- 9:00 CCC1 **388.06** Male hypothalamic-pituitary-testicular axis and the stress response in prenatally stressed offspring. M. PALLARES; E. ADROVER; M. MONTELEONE; M. IMSEN; A. DE LAURENTIIS; I. TORNADÚ; D. BECÚ; M. BROCCO; M. C. ANTONELLI*. *IBCN, Facultad De Medicina, Univ. De Buenos Aires, Inst. de Investigaciones Biotecnológicas. Univ. de San Martín, Ctr. de Investigaciones en Reproducción. Facultad de Medicina. Univ. de Buenos Aires, CEFyBO. Facultad de Medicina. Univ. de Buenos Aires, Lab. de Regulación Metabólica, IByME. Argentina.*
- 10:00 CCC2 **388.07** Gestational stress triggers maternal and newborn disturbances and aggravates stroke outcome later in offspring life through epigenetic regulation of brain gene expression. F. C. ZUCCHI*; Y. YAO; Y. ILNYTSKY; D. OLIVEIRA; O. KOVALCHUK; I. KOVALCHUK; K. BENZIES; D. OLSON; G. METZ. *Univ. of Lethbridge, Univ. of Lethbridge, Univ. of Calgary, Univ. of Alberta.*
- 11:00 CCC3 **388.08** ● Prenatal stress delays GABAergic progenitor migration in the developing cortex and hippocampus. H. E. STEVENS*; T. SU; F. M. VACCARINO. *Yale Univ. Sch. Med., Yale Univ. Sch. Med., Yale Univ. Sch. Med.*

- 8:00 CCC4 **388.09** Prenatal stress influences epigenetic mechanisms that regulate 11 β -hydroxysteroid dehydrogenase-2 in the placenta and fetal brain. K. L. GONZALES*; C. L. JENSEN; C. MONK; F. A. CHAMPAGNE. *Columbia Univ., Columbia Univ.*
- 9:00 CCC5 **388.10** Brain structural and functional connectivity alterations in maltreating macaque mothers: An MRI, DTI and resting state fMRI study. J. GODFREY*; B. HOWELL; Y. SHI; X. ZHANG; D. GRAYSON; G. NAIR; X. HU; D. FAIR; M. STYNER; M. SANCHEZ*. *Emory Univ., Emory Univ. Sch. Med., Univ. of North Carolina, Oregon Hlth. & Sci. Univ., Emory Univ., Georgia Inst. of Technol., Univ. of North Carolina, Emory Univ. Sch. Med.*
- 10:00 CCC6 **388.11** Effects of maternal stress and perinatal fluoxetine exposure on behavioural outcomes of adult offspring. V. KIRYANOVA*; S. IABLOKOVA; R. H. DYCK. *Univ. of Calgary, Univ. of Calgary.*
- 11:00 CCC7 **388.12** Dietary choline supplementation to dams during pregnancy and lactation protects female offspring from the effects of *in utero* stress exposure on anxiety-related behaviors. K. M. SCHULZ*; J. N. PEARSON; M. E. GASPARRINI; K. M. ANDRUD; K. FRAZIER; A. KREISLER; S. LEONARD; C. E. ADAMS; K. E. STEVENS. *Univ. of Colorado Anschutz Med. Sch., VAMC, Univ. of Colorado Anschutz Med. Sch., Univ. of Pittsburgh.*
- 8:00 CCC8 **388.13** Prenatal restraint stress induces a pre-parkinsonian phenotype in rats. H. BOUWALERH*; J. MARROCCO; J. MAIRESSE; T. CASSANO; M. CANNELLA; M. MOTOLESE; D. BUCCI; G. BATTAGLIA; A. PITTALUGA; P. CALABRESI; L. RAVASI; S. MORLEY-FLETCHER; F. NICOLETTI; S. MACCARI. *Univ. Lille1, Dept. of Biomed. Sciences, Med. School, Univ. of Foggia, I.R.R.C.S. Neuromed, Dept. of Exptl. Medicine, Univ. of Genova, Fondazione Santa Lucia, I.R.R.C.S. MicroPET Plateforme d'imagerie du vivant CHR Lille, Univ. de Lille 2, Dept. of Physiol. and Pharmacology, Univ. of Rome, Sapienza.*
- 9:00 CCC9 **388.14** Early life stress protects against haloperidol-induced catalepsy in the adult life. J. MARROCCO*; J. MAIRESSE; L. LIONETTO; M. SIMMACO; G. VAN CAMP; M. REYNAERT; S. MORLEY-FLETCHER; S. MACCARI; F. NICOLETTI. *Univ. of Lille 1, Advanced Mol. Diagnostic, St. Andrea's Hosp., I.R.R.C.S. Neuromed, Dept. of Physiol. and Pharmacology, Univ. of Roma Sapienza.*
- 10:00 CCC10 **388.15** Effects of maternal separation stress schedule and hippocampal gene therapy on the mechanisms that support spatial memory in young adult rats. E. T. STONEHAM*; S. SAMIPOUR; D. MCHAIL; A. AL-HAJ; S. JIANG; T. C. DUMAS. *Krasnow Institute, George Mason Univ.*
- 11:00 CCC11 **388.16** Effects of adverse maternal care on HPA function: A longitudinal study in infant rhesus monkeys. D. B. GUZMAN; B. R. HOWELL; C. L. MARSTELLAR; Z. P. JOHNSON; J. S. MEYER*; M. M. SANCHEZ. *Emory Univ., Emory Univ., Univ. Massachusetts.*
- 8:00 CCC12 **388.17** Effects of maternal separation on voluntary wheel running and cocaine conditioned place preference. L. M. PRITCHARD*; E. HENSLEIGH; M. PIERCE; S. LYNCH; A. FOWLER; K. ABUALI; A. JAGER; J. EGAN; M. ORLEWICZ. *Univ. Nevada Las Vegas.*
- 9:00 CCC13 **388.18** Cross-fostering disrupts gamma rhythmogenesis and NMDA receptor function in the entorhinal cortex. S. P. HALL*; C. RACCA; M. A. WHITTINGTON; M. O. CUNNINGHAM. *Newcastle Univ.*

Mon. AM

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 CCC14 **388.19** Effects of social instigation in lactating rats on social interaction and oxytocin responses of the adult offspring. T. P. HENRIQUES*; L. A. DIEHL; M. A. SOUZA; C. N. CORRÊA; M. B. ALVES; P. R. MENEGOTTO; C. P. VEIGA; C. DALMAZ; R. M. M. DE ALMEIDA; A. B. LUCION. *UFRGS, Federal Univ. of Rio Grande do Sul, Federal Univ. of Rio Grande do Sul, Federal Univ. of Rio Grande do Sul.*
- 11:00 CCC15 **388.20** Proteomic analysis of the effects of agomelatine on the anxious/depressive profile of prenatally stressed male rats. S. MORLEY-FLETCHER*; J. MAIRESSE; J. MARROCCO; V. SILLETTI; C. GABRIEL; E. MOCAER; F. NICOLETTI; S. MACCARI. *Neural Plasticity Team UMRCNRS 8576 North Univ. of Lille, Inst. de Recherches Internationales Servier, I.R.R.C.S.*
- 8:00 CCC16 **388.21** ▲ Chronic agomelatine treatment corrects the abnormalities in the circadian rhythm of motor activity and sleep/wake cycle induced by prenatal restraint stress in adult rats. E. GATTA*; J. MAIRESSE; V. SILLETTI; C. LALOUX; A. ZUENA; A. GIOVINE; M. CONSOLAZIONE; G. VAN CAMP; M. MALAGODI; S. GAETANI; S. CIANCI; A. CATALANI; G. MENNUNI; A. MAZZETTA; O. VAN REETH; C. GABRIEL; E. MOCAËR; F. NICOLETTI; S. MORLEY FLETCHER; S. MACCARI. *Univ. Lille 1, Dept of Human Physiol & Pharmacol, Sapienza Univ. of Rome, Inst. di Farmacologia, Univ. Catt. Sacro Cuore, CERB, ULB, Inst. de Recherches Internationales Servier, IRRCS Neuromed.*
- 9:00 CCC17 **388.22** Anxiety-like behavior in the prenatally stressed rat model of depression is associated with a selective reduction of glutamate release in the ventral hippocampus. G. VAN CAMP*; J. MARROCCO; J. MAIRESSE; R. NGOMBA; V. SILLETTI; H. BOUWALERH; M. SUMMA; A. PITTALUGA; F. NICOLETTI; S. MACCARI; S. MORLEY-FLETCHER. *North Univ. of Lille1-Neuroplasticity Team- UGSF UMR8576, IRRCS Neuromed, Dept. of Human Physiol & Pharmacol, Sapienza Univ. of Rome, Dept. of Exptl. Medicine, Univ. of Genoa.*
- POSTER**
- 389. Hypothalamic Mechanisms**
- Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology and Homeostatic Challenge**
- Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J
- 8:00 CCC18 **389.01** Secretagogin neurons in the mouse hypothalamus. E. GYENGESI*; G. PAXINOS; Z. B. ANDREWS. *Neurosci. Res. Australia, Monash Univ.*
- 9:00 CCC19 **389.02** Ventromedial hypothalamic expression of BDNF is required for normal development of the circuits controlling the counter-regulatory response to hypoglycemia. A. K. KAMITAKAHARA*; R. B. SIMERLY. *USC, Children's Hosp. Los Angeles.*
- 10:00 CCC20 **389.03** Autophagy in the ventromedial hypothalamic nucleus regulates energy homeostasis. B. COUPE*; J. MAILLARD; S. G. BOURET. *Saban Res. Institute/Childrens Hosp. of Los Angeles/Usc, Inserm, U837, Intl. Associated Lab. "Neurobese".*
- 11:00 CCC21 **389.04** Effect of arcuate nucleus orexin signaling on body weight, food intake, and physical activity in rats. J. P. NIXON*; C. M. KOTZ. *VA Med. Ctr., Univ. of Minnesota.*
- 8:00 CCC22 **389.05** Exercise effects on oxytocin and tropomyosin related kinase B (trkB) receptor in the hypothalamic paraventricular nucleus (PVN). E. NOBLE*; C. KOTZ; C. BILLINGTON; C. WANG. *Univ. of Minnesota.*
- 9:00 CCC23 **389.06** BMP receptor 1A regulates development of hypothalamic circuits critical for feeding behavior. C. PENG*; J. JARRETT; A. MUKHOPADHYAY; J. A. KESSLER. *Northwestern Univ., Harvard Med. Sch.*
- 10:00 CCC24 **389.07** ▲ Mediobasal hypothalamic $\beta 3$ adrenergic receptor signaling regulates energy intake and utilization. C. AULAS; G. J. SCHWARTZ; C. BLOUET*. *Albert Einstein Col. Med.*
- 11:00 CCC25 **389.08** Sex-specific impact of common genetic variation near MC4R on brain structure and eating behavior patterns. A. HORSTMANN*; S. KABISCH; P. KOVACS; H. SCHLOEGL; A. TOENJES; Y. BOETTCHER; B. PLEGER; M. STUMVOLL; A. VILLRINGER. *Max Planck Inst. For Human Cognitive and Brain Sci., IFB AdiposityDiseases, Leipzig Univ., Leipzig Univ., Leipzig Univ., Berlin Sch. of Mind and Brain, Humboldt-University.*
- 8:00 CCC26 **389.09** Metabolic effects of PTP1B-deficiency in leptin receptor-expressing cells and in the absence of hypothalamic leptin receptors. R. TSOU*; D. E. ZIMMER; B. C. DE JONGHE; K. K. BENICE. *Univ. of Pennsylvania.*
- 9:00 CCC27 **389.10** POMC neuron-specific deletion of GABAB receptor leads to obesity on a high fat diet. Y. ITO; R. BANNO*; M. SHIBATA; K. ADACHI; S. HAGIMOTO; M. GOTO; B. BETTLER; Y. OISO; H. ARIMA. *Nagoya Univ. Grad. Sch. of Med., Univ. of Basel.*
- 10:00 CCC28 **389.11** Distribution of pituitary adenylate cyclase-activating polypeptide receptor and system xc-mRNA expression in the hypothalamus: Potential functional implications. J. M. RESCH*; A. K. GERHARDT; A. E. HOURIGAN; X. LIU; S. CHOI. *Marquette Univ.*
- 11:00 CCC29 **389.12** LMO4 is antidiabetic by modulating central lepin-dependent regulation of peripheral insulin secretion and sensitivity. Z. T. QIN*; N. R. PANDEY; X. ZHOU; H. ANISMAN; A. F. R. STEWART; H. CHEN. *Univ. of Ottawa, Ottawa Hosp. Res. Inst., Carleton Univ., Univ. of Ottawa, Univ. of Ottawa.*
- 8:00 CCC30 **389.13** Afferent inputs to the ventromedial hypothalamus. N. FOSTER*; A. G. WATTS. *USC.*
- 9:00 CCC31 **389.14** Secretion and maturation of novel variants of the peptide-synthesizing enzyme PC1/3. L. A. PICKETT; M. YOURSHAW; Z. CHEN; S. SOLARZANO-VARGAS; S. F. NELSON; M. G. MARTIN; I. LINDBERG*. *Univ. Maryland-Baltimore, Univ. of California Los Angeles Sch. Med., Univ. of California Los Angeles Sch. Med.*
- 10:00 CCC32 **389.15** ▲ Hypothalamic innervation of the lateral mediodorsal thalamus in macaque monkey: Location of projection neurons. A. L. RUSSELL; D. S. MELCHITZKY*; S. L. ERICKSON; D. A. LEWIS. *Mercyhurst University, Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 11:00 CCC33 **389.16** Sweet taste receptors in tanycytes and ependymal cells lining the third ventricle. H. E. BENFORD*; H. H. T. WU; M. BOLBOREA; N. DALE. *Univ. of Warwick.*
- 8:00 CCC34 **389.17** PI3K regulates galanin-like peptide (GALP) gene expression in the mediobasal hypothalamus of mice. R. AZIZ; M. BEYMER; A. NEGRON; A. NEWSHAM; C. MAYER; R. LIN; M. FUKUDA; U. BOEHM; M. ACOSTA*. *Stony Brook Univ., Ctr. for Mol. Neurobio., Univ. of Texas Southwestern Med. Ctr., Stony Brook Univ.*
- 9:00 CCC35 **389.18** ● Fasting induces differential expression in the transcriptome of the hypothalamic arcuate nucleus of the rat. M. M. MORIN*; J. CALLEY; Y. LU; N. VRANG; S. PAULSEN; D. GEHLERT. *Eli Lilly and Co., Eli Lilly and Co., Eli Lilly and Co., Gubra ApS.*

- 10:00 CCC36 **389.19** ▲ Stimulation of food intake after central galanin is associated with arcuate nucleus activation and does not differ between genetically low and high body weight selected lines of chickens. R. I. WEBSTER*; P. SIEGEL; M. CLINE. *Radford Univ., Virginia Tech.*
- 11:00 CCC37 **389.20** Cholecystokinin-2 receptor over-expression and functional compensation in the paraventricular nucleus in mice lacking cholecystokinin-1 receptors. T. OZAKI*; S. MOHAMMAD; M. IKEDA. *Grad. Sch. of Innovative Life Science, Univ. of Toyama.*
- 8:00 CCC38 **389.21** ● *In vitro* pharmacological characterization of human and mouse QRFP/GPR103 receptors. L. FOLTZ; T. SUTER; C. RUBLE; C. PEDREGAL; M. STATNICK; P. J. EMMERSON*. *Lilly Res. Labs.*
- 9:00 CCC39 **389.22** ▲ Leptin deficiency increases TAU phosphorylation in the lateral hypothalamus by glycogen synthase kinase-3 β inactivation: Possible impact on the endocannabinoid system. L. CRISTINO*; L. PALOMBA; R. IMPERATORE; C. SILVESTRI; V. DI MARZO. *Italian Natl. Reseach Council, Endocannabinoid Res. Group, Univ. of Urbino.*
- 10:00 CCC40 **389.23** Hypothalamic dysfunction of the thrombospondin receptor $\alpha 2\delta$ -1 underlies the overeating and obesity triggered by BDNF deficiency. J. CORDEIRA*; S. TEILLON; S. DAFTARY-BUSSIERE; J. FELSTED; J. WIRTH; M. SENA-ESTEVEZ; M. RIOS. *Tufts Univ. Sch. Med., Univ. of Massachusetts Med. Sch.*
- 11:00 CCC41 **389.24** Insulin stimulates Phosphodiesterase-3B activity in the mouse hypothalamus and in a clonal hypothalamic neuronal cell line: A novel mechanism of insulin signaling. A. SAHU*; P. ANAMTHATHMAKULA; M. SAHU. *Univ. of Pittsburgh.*
- 8:00 CCC42 **389.25** ● ▲ Physiological role of autophagy in the hypothalamus in regulating energy balance. S. SHAH*; C. LI. *Univ. of Virginia.*
- 9:00 CCC43 **389.26** ▲ Chemoarchitecture of the lateral hypothalamic area in the adult male rat: Wide-field imaging of five cell types and four afferent systems in a single brain. B. E. PINALES*; N. DOMINGUEZ; C. E. WELLS; A. M. KHAN. *Univ. of Texas At El Paso.*
- 10:00 CCC44 **389.27** Hyperphagic obesity, reduced energy expenditure, disrupted MC4R signaling, and abnormal response to high fat diet after ablation of PVH Sim1 neurons. D. XI; N. GANDHI; M. LAI; B. KUBLAOU*. *Univ. of Pennsylvania/ Children's Hosp. of Philadelphia.*
- 11:00 CCC48 **390.04** Resting-state functional connectivity evidence for asymmetric rostro-to-caudal prefronto-striatal connectivity. E. CHOI*; D. BADRE. *Harvard Univ., Brown Univ.*
- 8:00 CCC49 **390.05** Dissociable global and local motivational influences on cognition revealed by fmri functional connectivity. A. C. SAVINE*; T. S. BRAVER. *Univ. Washington-St. Louis.*
- 9:00 CCC50 **390.06** Enhanced decoding of task representations under reward motivation conditions. J. A. ETZEL*; M. W. COLE; J. M. ZACKS; T. S. BRAVER. *Cognitive Control & Psychopathology Lab., Washington Univ. in St Louis.*
- 10:00 CCC51 **390.07** Neural mechanisms underlying internally and externally guided task selection. J. M. ORR*; M. T. BANICH. *Univ. of Colorado Boulder, Univ. of Colorado Boulder.*
- 11:00 CCC52 **390.08** Flexible hubs: A novel mechanism for flexible cognitive control. M. W. COLE*; J. REYNOLDS; J. D. POWER; T. S. BRAVER. *Washington Univ., Univ. of Denver.*
- 8:00 CCC53 **390.09** Frontoparietal contributions to cognitive control: Multivariate decoding of task context. M. L. WASKOM*; D. KUMARAN; A. M. GORDON; A. D. WAGNER. *Stanford Univ., Stanford Univ., Univ. Col. London, Stanford Univ.*
- 9:00 CCC54 **390.10** Single-subject fMRI data show adjacent domain-general and language-specific regions of frontal and parietal cortex. J. DUNCAN*; N. KANWISHER; E. FEDORENKO. *Med. Res. Council, MIT.*
- 10:00 CCC55 **390.11** The paraintermediate frontal sulci and their relation to the intermediate and other neighbouring frontal sulci. M. PETRIDES*; T. SPRUNG-MUCH. *Montreal Neurolog Inst. Mc Gill Univ., McGill Univ.*
- 11:00 CCC56 **390.12** Task-induced brain activation in relation to intrinsic functional connectivity parcellation of the human lateral prefrontal cortex. P. STIERS*; A. GOULAS; H. B. M. UYLINGS. *Fac. of Psychology and Neuroscience, Maastricht Univ., VU Univ. Med. Ctr.*
- 8:00 CCC57 **390.13** Not all errors are alike: Theta and alpha EEG dynamics relate to different long-range functional networks of error processing. J. V. DRIEL*; K. RIDDERINKHOF; M. COHEN. *Univ. of Amsterdam, Univ. of Amsterdam, Univ. of Arizona.*
- 9:00 CCC58 **390.14** Phase/amplitude coupling supports network organization in human frontal cortex. B. VOYTEK*; D. BADRE; A. S. KAYSER; D. FEGER; E. F. CHANG; N. E. CRONE; J. PARVIZI; R. T. KNIGHT; M. D'ESPOSITO. *Univ. of California, San Francisco, Univ. of California, Berkeley, Brown Univ., Brown Univ., Univ. of California, San Francisco, Univ. of California, San Francisco, Johns Hopkins Med. Institutions, Stanford Univ., Stanford Univ., Univ. of California, Berkeley.*
- 10:00 CCC59 **390.15** EEG predictors of structured learning and task-set transfer during reinforcement learning. A. G. COLLINS*; M. J. FRANK. *Brown Univ.*
- 11:00 CCC60 **390.16** Decoding task-specific representations from fMRI using hyperalignment and whole-brain correlation analysis. W. KEUNG*; A. GREENE; Y. WANG; K. LI; M. CHARIKAR; N. B. TURK-BROWNE; J. D. COHEN. *Princeton Neurosci. Institute, Princeton Univ., Dept. of Psychology, Princeton Univ., Dept. of Computer Science, Princeton Univ.*

POSTER

390. Executive Function: Connectivity and Networks

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 CCC45 **390.01** Large-scale integration in the stop-signal paradigm. W. LIANG*; Y. LO; J. YU; N. G. MUGGLETON; C. JUAN. *Natl. Central Univ.*
- 9:00 CCC46 **390.02** Mapping the echoes of intrinsic connectivity networks across the whole brain. R. M. BRAGA*; D. J. SHARP; R. LEECH. *Imperial Col. London, IMPERIAL COLLEGE LONDON.*
- 10:00 CCC47 **390.03** Increases in stimulus valency are related to changes in functional brain activity in the task positive network but not the default mode network. P. D. METZAK*; T. S. WOODWARD. *Univ. of British Columbia.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 CCC61 **390.17** A butterfly in Brazil: Error inhibition is a local process with global effects. A. R. VAIDYA*; E. Y. HOCHMAN; S. LIU; A. TSUCHIDA; L. K. FELLOWS. *McGill Univ., McGill Univ.*
- 9:00 CCC62 **390.18** Activity in action observation and frontal control networks predicts dietary restraint failures. C. A. GREENBAUM; J. F. HUCKINS; T. F. HEATHERTON; W. M. KELLEY*. *Dartmouth Col.*
- 10:00 CCC63 **390.19** Common and distinct functional regions of neural circuitry supporting reflexive and volitional saccades (a meta-analysis of functional mri data). L. CHI*; C. E. KRAFFT; N. F. SCHWARZ; Q. LI; D. J. SCHAEFFER; A. L. RODRIGUE; J. E. PIERCE; K. A. DYCKMAN; J. E. MCDOWELL. *Univ. of Georgia, Child Mind Inst.*
- 11:00 CCC64 **390.20** Cerebral bloodflow velocity as a predictor of uncertainty and responsiveness to uncertainty. D. A. WASHBURN*; N. B. SCHULTZ; H. A. PHILLIPS. *Georgia State Univ.*
- 8:00 CCC65 **390.21** Genetic contributions to white matter pathways in 565 twins. G. PRASAD*; S. JOSHI; N. JAHANSHAD; J. VILLALON REINA; K. MCMAHON; G. DE ZUBICARAY; G. W. MONTGOMERY; N. G. MARTIN; M. J. WRIGHT; P. M. THOMPSON. *Lab. of Neuro Imaging, Queensland Inst. of Med. Research.*

POSTER

391. Emotion: Face Processing

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 CCC66 **391.01** • Subliminal effects of dynamic facial expressions. Y. KUBOTA*; W. SATO; M. TOICHI. *Shiga Univ., Kyoto Univ., Kyoto Univ.*
- 9:00 CCC67 **391.02** Sex and task differentially influence memory for fearful faces. R. PATEL*; T. A. GIRARD. *Ryerson Univ.*
- 10:00 CCC68 **391.03** Arousal amplifies the effects of stimuli competition between face and place areas. T. LEE*; R. CHENG; M. MATHER. *USC, USC, USC.*
- 11:00 CCC69 **391.04** Neurons in the human amygdala selective for perceived emotion. S. WANG*; O. TUDUSCIUC; A. MAMELAK; I. ROSS; R. ADOLPHS; U. RUTISHAUSER. *Caltech, Caltech, Cedars-Sinai Med. Ctr., Huntington Mem. Hosp., Caltech, Max Planck Inst. for Brain Res.*
- 8:00 CCC70 **391.05** Single-neuron responses to emotional expressions in the human brain. S. D. GOLDINGER*; A. B. VALDEZ; M. H. PAPESH; P. N. STEINMETZ. *Arizona State Univ., Barrow Neurolog. Inst., Louisiana State Univ.*
- 9:00 CCC71 **391.06** Amygdala response to positive or negative affect is context specific. L. STRATHEARN*; S. KIM. *Baylor Col. of Med.*
- 10:00 CCC72 **391.07** • Human amygdala response to dynamic facial expressions of positive and negative surprise. P. VRTICKA*; L. LORDIER; B. BEDIUO; D. SANDER. *Stanford Univ., Univ. of Geneva.*
- 11:00 CCC73 **391.08** Affective priming effects of mean facial expressions. X. YUAN*. *Peking Univ.*

- 8:00 CCC74 **391.09** • Regulation of impulsive circuitry: Function of emotional faces. G. J. SCHAUBHUT*; E. MAZZULLA; S. L. DUBE; A. S. POTTER. *Neurosci. Grad. Program, Univ. of Vermont, Univ. of Vermont, Univ. of Vermont.*
- 9:00 CCC75 **391.10** Differential processing of emotional expressions and images in a visual search task. D. PAUL*; P. WATSON; J. STORBECK. *Queens College-Cuny.*
- 10:00 CCC76 **391.11** Effective connectivity in easy and difficult perceptual decisions. S. BAJAJ*; B. ADHIKARI; B. LAMICHHANE; M. DHAMALA. *Dept. of Physics & Astronomy, Georgia State Univ., Neurosci. Institute, Ctr. for Behavioral Neuroscience, Georgia State Univ.*
- 11:00 CCC77 **391.12** In a flash: Neural responses to subliminally presented affective faces in social anxiety. E. R. DUVAL; L. R. HALE; C. T. LOVELACE; D. L. FILION; C. R. SAVAGE*. *Univ. of Missouri- Kansas City, Kansas City Ctr. for Anxiety Treatment, Kansas Univ. Med. Ctr.*
- 8:00 CCC78 **391.13** Low estrogen modulates attention bias to emotional faces in women with posttraumatic stress disorder. E. M. GLOVER*; N. FANI; K. MERCER; E. B. TONE; B. BRADLEY; K. J. RESSLER; T. JOVANOVIĆ. *Emory Univ. Sch. of Med., Georgia State Univ., Atlanta VA Med. Ctr.*
- 9:00 CCC79 **391.14** Adolescence and emotional face processing: How consistent are activation patterns in the amygdala and prefrontal cortex over time? B. G. VAN DEN BULK; P. C. M. P. KOOLSCHIJN*; P. H. F. MEENS; N. D. J. VAN LANG; N. J. A. VAN DER WEE; S. A. R. B. ROMBOUTS; R. R. J. M. VERMEIREN; E. A. CRONE. *Inst. of Psychology; Brain and Develop. Lab; Leiden Univ., Leiden Inst. for Brain and Cognition, Curium-LUMC, LUMC, LUMC.*

POSTER

392. Cognitive Development in Normal and Atypical Children

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 CCC80 **392.01** Development of relational reasoning during childhood and adolescence. I. DUMONTHEIL*; E. J. KILFORD; S. K. G. JENSEN; S. BLAKEMORE. *Univ. Col. London, Birkbeck, Univ. of London.*
- 9:00 CCC81 **392.02** Preliminary evidence for longitudinal efficacy of a successful parent/child training program in preschool children at risk for school failure. A. HAMPTON WRAY*; T. BELL; E. PAKULAK; H. NEVILLE. *Univ. of Oregon.*
- 10:00 CCC82 **392.03** Compared to adults, children show less automatic integration of phonological and lexical processing when reading aloud. S. K. IHNEN*; S. E. PETERSEN; B. L. SCHLAGGAR. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*
- 11:00 DDD1 **392.04** A multiple context approach to word learning results in novel implicit and explicit semantic associations. B. NARDOS*; R. L. LEPORE; J. S. SIEGEL. *Washington Univ. In St. Louis, Washington Univ. In St. Louis, Washington Univ. In St. Louis.*
- 8:00 DDD2 **392.05** Handedness in children with autism spectrum disorder. T. A. KNAUS*; J. KAMPS; H. TAGER-FLUSBERG; A. L. FOUNDAS. *LSUHSC-NO, Children's Hosp., Boston Univ.*

- 9:00 DDD3 **392.06** Development of prospective memory in children. G. MILLS*; S. A. RASKIN. *Trinity Col., Trinity Col.*
- 10:00 DDD4 **392.07** Facial features differentially correlate with SAT performance in males versus females. J. CANNON*; K. J. ALBERT; B. R. BURNHAM. *The Univ. of Scranton, The Univ. of Scranton, The Univ. of Scranton.*
- 11:00 DDD5 **392.08** Aerobic fitness and nutrition effects on relational and item memory in preadolescent children. C. L. BAYM*; J. M. MONTI; N. A. KHAN; C. H. HILLMAN; N. J. COHEN. *Univ. of Illinois At Urbana-Champaign.*
- 8:00 DDD6 **392.09** Low-level exogenous attention mechanisms in developmental dyslexia. A. PINA RODRIGUES*; M. CASTELO-BRANCO; M. VAN ASSELEN. *IBILI, Fac. of Medicine, Univ. of Coimbra.*
- 9:00 DDD7 **392.10** Peer influences on the integration of reward valuation and impulse control processes during adolescence. A. R. SMITH; J. M. CHEIN*; L. STEINBERG. *Temple Univ.*
- 10:00 DDD8 **392.11** Differential influence of safe versus threatening facial expressions on inhibitory control across adolescence and adulthood. J. E. COHEN-GILBERT; W. D. S. KILLGORE; Z. J. SCHWAB; D. J. CROWLEY; M. J. COVELL; D. ACHARYA; J. T. SNEIDER; M. M. SILVERI*. *Brain Imaging Ctr, McLean Hosp, Ctr. for Depression, Stress & Anxiety Res., McLean Hosp, Dept. Neuropsychology, McLean Hosp.*
- 11:00 DDD9 **392.12** The neural correlates of working memory performance in 12 year-old children. D. SIMMONDS*; B. LUNA. *Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 8:00 DDD10 **392.13** Analysis of handwriting fluency in children with autism. B. DIRLIKOV*; M. B. NEBEL; L. YOUNES; A. J. BASTIAN; S. H. MOSTOFKY. *The Kennedy Krieger Inst., The Kennedy Krieger Inst., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., The Kennedy Krieger Institute, Johns Hopkins Univ.*
- 9:00 DDD11 **392.14** fMRI in adolescent offspring of alcoholics. D. S. O'LEARY*; J. G. VAIDYA; S. KUPERMAN; J. R. KRAMER; D. R. LANGBEHN. *U of I Hosp.*
- 10:00 DDD12 **392.15** Working memory-relevant gray matter in the left pSTG relates to genetic risk and diagnostic status in developmental dyslexia: A VBM study. C. MÄNNEL*; L. MEYER; A. WILCKE; H. KIRSTEN; A. D. FRIEDERICI. *MPI for Human Cognitive and Brain Sci., Fraunhofer Inst. for Cell Therapy and Immunol., Translational Ctr. for Regenerative Medicine, Univ. of Leipzig, Inst. for Med. Informatics, Statistics and Epidemiology, Univ. of Leipzig.*
- 9:00 DDD14 **393.02** Individual differences in inhibitory control: Relating neural activation to different decision components in the stop signal task. C. N. WHITE*; E. CONGDON; K. H. KARLSGODT; J. MUMFORD; F. W. SABB; E. D. LONDON; T. D. CANNON; R. M. BILDER; N. B. FREIMER; R. A. POLDRACK. *Univ. of Texas At Austin, Univ. of California Los Angeles, Univ. of California Los Angeles, Univ. of California Los Angeles, Univ. of California Los Angeles, Univ. of Texas at Austin.*
- 10:00 DDD15 **393.03** Subcortical and cortical dysfunction during response inhibition in 22q11.2 deletion syndrome. M. JALBRZIKOWSKI; S. DOMICOLI; E. CONGDON; K. H. KARLSGODT; C. CHOW; C. E. BEARDEN*. *UCLA.*
- 11:00 DDD16 **393.04** Neural correlates of response inhibition across multiple neuropsychiatric disorders. E. J. CONGDON*; A. A. BATO; K. H. KARLSGODT; J. MUMFORD; N. B. FREIMER; F. W. SABB; E. D. LONDON; T. D. CANNON; R. M. BILDER; R. A. POLDRACK. *UCLA, UCLA, UT Austin, UCLA, UT Austin.*
- 8:00 DDD17 **393.05** The role of individual differences in duration perception in Parkinson's disease. N. S. MILLER*; S. MOYEN; R. D. SEIDLER; K. L. CHOU; J. D. MCAULEY. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Michigan State Univ.*
- 9:00 DDD18 **393.06** ● Effect of sociability, body orientation, and face visibility on brain activity in individuals with Fragile-X syndrome, developmental disability, and healthy adults: A novel paradigm. M. SAGGAR*; J. LEPAGE; E. WALTER; E. QUINTIN; A. REISS. *Stanford Univ.*
- 10:00 DDD19 **393.07** Teaching with acoustic guidance the operant conditioning of mu rhythms: a feasibility study of lower functioning children with autism. K. LAMARCA*; J. PINEDA*; A. LINCOLN; R. GEVIRTZ. *California Sch. of Professional Psychology - Alliant Intl. Univ., Univ. of California San Diego.*
- 11:00 DDD20 **393.08** Differential role of temporoparietal junction and medial prefrontal cortex in causal inference in autism: An independent components analysis. D. MURDAUGH*; K. NADENDLA; R. KANA. *Univ. of Alabama At Birmingham.*
- 8:00 DDD21 **393.09** Evaluating diffusion mri parcellation of the inferior parietal cortex using resting state functional mri. Z. GUI; T. MADHYASTHA; R. TUNGARAZA*; S. MEHTA; T. GRABOWSKI, Jr; L. SHAPIRO. *Univ. of Washington, Univ. of Washington, Integrated Brain Imaging Ctr. (IBIC), Univ. of Washington, Univ. of Washington, Univ. of Washington.*
- 9:00 DDD22 **393.10** Resting-state functional connectivity between ventral anterior cingulate cortex and medial prefrontal cortex predicts individual differences in self-esteem. J. F. HUCKINS*; T. F. HEATHERTON; S. N. JACOBS; C. A. GREENBAUM; C. P. MEEHAN; W. M. KELLEY. *Dartmouth Col.*
- 10:00 DDD23 **393.11** Individual differences in criterion shifting during recognition memory across the lifespan. B. A. LOPEZ*; T. SANTANDER; C. BENNETT; M. B. MILLER. *Univ. of California, Santa Barbara.*
- 11:00 DDD24 **393.12** Investigation of the different brain wave patterns on two groups of creative individuals selected by open-ended vs. closed-ended creative problems. C. TSENG*; C. TSAI; W. LIN; A. C. W. HUANG. *Fo-Guang University/ Psychology, Statistic Sci.*

POSTER

393. Individual Differences I

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 DDD13 **393.01** Symptom-related functional-network activation during spatial working memory in patients with schizophrenia and bipolar disorder. K. H. KARLSGODT*; J. VENTURA; J. MUMFORD; E. CONGDON; R. A. POLDRACK; A. A. BATO; F. W. SABB; E. D. LONDON; R. A. BILDER; T. D. CANNON. *UCLA, Univ. of Texas at Austin, UCLA.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 DDD25 **393.13** Common repeat polymorphism in the dopamine transporter gene SLC6A3 is associated with stop signal reaction time (SSRT) and motion coherence threshold (MCT). A. J. SCHORK*; K. S. MADSEN; W. F. C. BAARE; N. AKSHOOMOFF; C. MCCABE; E. NEWMAN; J. ATKINSON; O. BRADDICK; C. S. BLOSS; S. S. MURRAY; N. J. SCHORK; T. L. JERNIGAN. *UC San Diego, UC San Diego, UC San Diego, Copenhagen Univ. Hosp., Copenhagen Univ. Hosp., UC San Diego, Univ. Col. London, Univ. of Oxford, Scripps Translational Sci. Inst., UC San Diego, The Scripps Res. Inst.*
- 9:00 DDD26 **393.14** The cognitive connectome: Translating functional neuroimaging into personalized medicine. G. JAMES*; J. K. FAUSETT; J. L. GESS; E. A. PETERSEN; C. D. KILTS. *Univ. of Arkansas For Med. Sci., Univ. of Arkansas For Med. Sci.*
- 10:00 DDD27 **393.15** The creative individuals let themselves be creative: Cortical control of creative individuals with different creative potentials. Y. LI*; W. LIN; A. C. W. HUANG; C. TSENG. *Fo-Guang Univ.*
- 11:00 DDD28 **393.16** Food cue-related activity in the nucleus accumbens predicts failure to resist food desires in everyday life. R. B. LOPEZ*; W. HOFMANN; D. D. WAGNER; W. M. KELLEY; T. F. HEATHERTON. *Dartmouth Col., Univ. of Chicago Booth Sch. of Business.*
- 8:00 DDD29 **393.17** Do boys mature differently from girls? A brain connectivity analysis using 400 MRI scans. B. S. KHUNDRAKAM*; J. LEWIS; A. EVANS. *Montreal Neurolog. Inst.*
- 9:00 DDD30 **393.18** Striatal circuits may underlie novelty-seeking behavior. T. ISHII*; N. SAWAMOTO; H. TABU; H. FUKUYAMA. *Human Brain Res. Center, Kyoto Univ. Grad. Sch. of Med.*
- 10:00 DDD31 **393.19** ● Sex differences in humor comprehension and appreciation: an ERP study. Y. CHAN*; Y. FENG; H. CHEN. *Natl. Taiwan Normal Univ.*
- 11:00 DDD32 **393.20** Modulation of prefrontal-amygdala functional connectivity at rest by psychopathic traits. M. SOBHANI*; L. BAKER; L. AZIZ-ZADEH. *USC, USC, USC.*
- 8:00 DDD33 **393.21** Predicting individual differences in decision making based on structural, functional, and behavioral measures. J. M. VETTEL*; M. VINDIOLA; E. M. AMINOFF; C. M. TIPPER; A. FRITHSEN; A. JOHNSON; S. T. GRAFTON; M. B. MILLER. *Army Res. Lab., Dynamics Res. Corp., Carnegie Mellon Univ., Univ. of California, Santa Barbara.*
- 9:00 DDD34 **393.22** The influence of corticomotor excitability on cognitive abilities in children born preterm. L. SCHNEIDER*; N. BURNS; T. NETTELBECK; M. RIDDING; J. PITCHER. *Robinson Institute, Univ. of Adelaide, Sch. of Psychology, Univ. of Adelaide.*
- 10:00 DDD35 **393.23** ● Relationships between lifestyle factors and cognitive performance, an online study including >160,000 participants. J. HARDY*; D. A. STERNBERG; K. BALLARD; B. KATZ; M. SCANLON. *Lumos Labs.*
- 11:00 DDD36 **393.24** Children's non-symbolic numerical abilities are predicted by frontal lobe white matter microstructure. A. VIAROUGE*; B. D. MCCANDLISS. *Vanderbilt Univ.*
- 8:00 DDD37 **393.25** Individual differences in cognitive performance: Relation to brain structure and function. C. R. FIGLEY*; E. AWUAH; B. HURST; S. M. COURTNEY. *Johns Hopkins Univ., Johns Hopkins Univ., Kennedy Krieger Inst.*
- 9:00 DDD38 **393.26** Fmri to probe gender related differences in multitasking. M. TSCHERNEGG*; M. LOITFELDER; C. NEUPER; R. SCHMIDT; G. WOOD; F. FAZEKAS; C. ENZINGER. *Fac. of Natural Sci. Salzburg - Inst. For Psychology, Med. Univ. of Graz, Karl-Franzens Univ. of Graz.*
- 10:00 DDD39 **393.27** Psychopathy modulates drug craving in substance-dependent inmates. L. COPE*; G. M. VINCENT; J. L. JOBELIUS; P. K. NYALAKANTI; V. D. CALHOUN; K. A. KIEHL. *Univ. of New Mexico, Mind Res. Network, Univ. of Massachusetts.*

POSTER

394. Cognitive Learning and Memory Systems II

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 DDD40 **394.01** ▲ The effect of inactivation of dorsolateral prefrontal cortex (DLPFC) in spatial delayed response task by transcranial magnetic stimulation (TMS) in monkeys. A. MOCHIZUKI*; Y. ONO; T. IJIMA; K. TSUTSUI. *Grad. Schl of Lifesci., Tohoku Univ.*
- 9:00 DDD41 **394.02** Comparative visual memory processing after medial thalamic damage in humans and non-human primates. A. S. MITCHELL*; L. A. MILLER. *Oxford Univ., Royal Prince Alfred Hosp., Univ. of Sydney.*
- 10:00 DDD42 **394.03** Monkeys can form and utilize functional category: Performance in repeated concurrent stimulus-reward reversal. Y. MATSUI*; M. YAMADA; T. IJIMA; K. TSUTSUI. *Tohoku Univ.*
- 11:00 DDD43 **394.04** Generalization of shape discrimination in the common marmosets (*Callithrix jacchus*). Y. YAMAZAKI*; M. SAIKI; M. INADA; S. WATANABE; A. IRIKI. *Keio Univ., RIKEN BSI.*
- 8:00 DDD44 **394.05** Mapping the depth-dependence and ensemble dynamics of spatial working memory in macaque prefrontal cortex. D. A. MARKOWITZ*; B. PESARAN. *New York Univ., New York Univ.*
- 9:00 DDD45 **394.06** Soman survivors show impairments in the acquisition and performance of an operant timing task. L. R. HAMILTON*; J. H. MCDONOUGH; A. J. BONVILLAIN; J. D. MCMONAGLE; T. M. MYERS. *US Army Med. Res. Inst. of Chem. Def.*
- 10:00 DDD46 **394.07** Brain activation and appraisal of hypoxia in two strains of rainbow trout (*Oncorhynchus mykiss*) displaying divergent stress coping styles. M. MOLTESEN*; S. WINBERG; L. EBBESSON; E. HÖGLUND. *Tech. Univ. of Denmark, Univ. of Uppsala, Uni Environment, Uni Res. AS.*
- 11:00 DDD47 **394.08** Differential neural activation by human faces versus predators in the wild American crow as revealed by FDG-microPET brain mapping. D. J. CROSS*; R. MIYAOKA; S. MINOSHIMA; J. MARZLUFF. *Univ. Washington Med. Sch., U of Washington, Univ. Washington Med. Sch., U. of Washington.*
- 8:00 DDD48 **394.09** 3 α -hydroxy-5 α -pregnan-20-one (allopregnanolone) does not affect social cooperation, spatial memory, or cognitive flexibility, but may improve nonspatial object memory when coadministered with sub-threshold d-amphetamine. M. WODKA; S. B. HARTMAN; E. HAURY; T. BANKS; K. THOMAS; B. BECKER; G. P. TINKLER*. *Illinois Wesleyan Univ.*

- 9:00 DDD49 **394.10** ● Early protein malnutrition impairs different memory domains in rats. N. N. BRAGA*; S. S. ALMEIDA. *Univ. De São Paulo*.
- 10:00 DDD50 **394.11** ● AMPA receptors modulate passive avoidance deficits induced by sleep deprivation. D. C. HIPOLIDE*; F. P. DUBIELA; C. M. T. QUEIROZ; K. M. MOREIRA; J. N. NOBREGA; S. TUFIK. *Univ. Federal De Sao Paulo, Univ. Federal do Rio Grande do Norte, Ctr. for Addiction and Mental Hlth*.
- 11:00 DDD51 **394.12** Impaired spatial learning in Grin2adeltaPKC mice with PKC phosphorylation site mutations in NR2A. D. BALU*; J. V. SCHMIDT; J. P. LEONARD. *Univ. of Illinois - Chicago*.
- 8:00 DDD52 **394.13** Prenatal nicotine exposure and mechanism of memory impairment in offspring. M. A. BUABEID; S. BHATTACHARYA; V. D. SUPPIRAMANIAM*; M. AHUJA; M. DHANASEKHARAN; K. PARAMESHWAREN; E. A. ABDULRAHMAN; B. AUGSBURGER; R. AMIN. *Auburn Univ., Auburn Univ.*
- 9:00 DDD53 **394.14** Effects of methyl donors deficient diet on cognitive functions. H. TOMIZAWA*; D. MATSUZAWA; D. ISHII; S. MATSUDA; C. SUTOH; E. SHIMIZU. *Chiba Univ. Grad. Sch. of Med., Res. Ctr. for Child Mental Development, Univ. of Chiba*.
- 10:00 DDD54 **394.15** Cardiac arrest induces cognitive decline and CA1 neuronal death in aged rats. C. COHAN*; J. T. NEUMANN; M. BINKERT; K. R. DAVE; C. WRIGHT; M. A. PEREZ-PINZON. *Univ. of Miami*.
- 11:00 DDD55 **394.16** Network properties of complex mazes influence exploration and spatial learning in rodents. K. R. BARTON*; C. ELLARD. *Univ. of Waterloo*.
- 8:00 DDD56 **394.17** Sex differences in the relationship between anxiety level and learning strategy in prepubertal rats. E. M. GRISSOM*; W. HAWLEY; G. DOHANICH. *Tulane Univ., Tulane Univ.*
- 9:00 DDD57 **394.18** Propranolol blocks the memory enhancing effect of post-training corticosterone on habit learning. K. LEONG*; M. G. PACKARD. *Texas A&M Univ.*
- 10:00 DDD58 **394.19** ▲ Potentiated arousal state converts short-term to long-term memory in novel object recognition paradigm. K. DESHPANDE; S. MOORE; G. G. MURPHY*. *Univ. of Michigan, Univ. of Michigan*.
- 11:00 DDD59 **394.20** ● Corticosterone infused into the dorsomedial striatum selectively enhances spatial strategy in the Tolman maze task. C. SILLER PÉREZ; N. SERAFIN; V. ESPINOZA-GONZÁLEZ; R. A. PRADO-ALCALÁ; B. ROOZENDAAL; G. L. QUIRARTE*. *INB- UNAM, Section Anatomy, Univ. Med. Ctr. Groningen*.
- 8:00 DDD60 **394.21** Effects of post-trial injections of an inhibitor of RNAm synthesis in the dorsal hippocampus on memory consolidation of enhanced inhibitory avoidance. M. E. TORRES GARCÍA*; A. C. MEDINA; G. L. QUIRARTE; R. A. PRADO-ALCALÁ. *Inst. de Neurobiología, UNAM*.
- 9:00 DDD61 **394.22** Effect of a protein synthesis inhibitor, anisomycin, on memory consolidation of enhanced inhibitory avoidance training. Y. JUÁREZ; A. C. MEDINA; G. L. QUIRARTE; R. A. PRADO-ALCALÁ*. *Inst. of Neurobiology, Natl. Univ. Mexico*.
- 10:00 DDD62 **394.23** Memory retrieval induces expression of arc and zif268 in striatum and amygdala. S. GONZALEZ*; A. ANTARAMIAN; A. MEDINA FRAGOSO; G. L. QUIRARTE; R. A. PRADO-ALCALA. *Inst. de Neurobiología, UNAM, Inst. de Neurobiología, UNAM*.
- 11:00 DDD63 **394.24** ● Do different levels of protein synthesis produce differential effects on long-term memory? A. C. MEDINA FRAGOSO*; A. G. NAVARRO; S. GONZALEZ-SALINAS; A. ANTARAMIAN; G. QUIRARTE; R. A. PRADO-ALCALA. *Natl. Univ. Mexico & Univ. Queretaro, Natl. Univ. Mexico & Univ. Queretaro*.
- 8:00 DDD64 **394.25** Infusion of GAT1-Saporin into the medial septum spares mnemonic function and impairs self-movement cue processing. J. R. KOPPEN*; S. S. STUEBING; S. S. WINTER; J. L. CHEATWOOD; D. G. WALLACE. *Northern Illinois Univ., Southern Illinois Univ. Sch. of Med.*
- 9:00 DDD65 **394.26** ▲ Evaluating sex differences in self-movement cue processing during a food hoarding task. A. A. BLACKWELL; S. S. STUEBING; A. A. FINNEY; J. R. KÖPPEN; S. S. WINTER; L. MATUSZEWICH; D. G. WALLACE*. *Northern Illinois Univ.*
- 10:00 DDD66 **394.27** Electrical stimulation to the amygdala modulates activity in the ipsilateral hippocampus. D. I. BASS*; K. N. PARTAIN; A. WANG; Z. G. NIZAM; J. DUAN; J. R. MANNS. *Emory Univ., Emory Univ., Emory Univ.*
- 11:00 DDD67 **394.28** Recognition memory and gamma coherence in the rat hippocampus. J. B. TRIMPER; R. A. STEFANESCU; M. S. BRAND; F. W. GETANEH; J. R. MANNS*. *Emory Univ., Univ. of Florida*.
- 8:00 DDD68 **394.29** ● Early behavioral phenotypes of a mouse tauopathy model and its controls. D. BRUNNER*; D. CONNOR; V. ALEXANDROV; V. ISTOMIN; M. DOLGUIKH; P. D. WES; E. SABATH; K. CAVINO; S. OAKESHOTT; T. HANANIA; D. M. BARTEN; N. X. BARRETZUETA; M. K. AHLIJANIAN. *Psychogenics Inc, Bristol-Myers Squibb Neurosci. Drug Discovery*.
- 9:00 DDD69 **394.30** Pigeons on par with primates in numerical competence. D. SCARF*; H. HAYNE; N. MCNAUGHTON; M. COLOMBO. *Univ. of Otago, Univ. of Otago*.

POSTER

395. Fear Learning and Extinction: Amygdala, Hippocampus, and PFC

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 DDD70 **395.01** The effects of fear conditioning and extinction on hippocampal place cell representations. M. E. WANG*; R. K. YUAN; I. A. MUZZIO. *Univ. of Pennsylvania, Univ. of Pennsylvania*.
- 9:00 DDD71 **395.02** Inactivation of the ventral hippocampus, but not basolateral amygdala, decreases bursting in infralimbic prefrontal cortex. K. QUINONES-LARACUENTE*; F. SOTRES-BAYON; G. J. QUIRK. *Univ. of Puerto Rico Sch. Med.*
- 10:00 DDD72 **395.03** Contributions of prefrontal cortex, hippocampus, amygdala, and accumbens to the expression of active avoidance. C. BRAVO-RIVERA*; E. BRIGNONI-PEREZ; F. SOTRES-BAYON; G. J. QUIRK. *Univ. Puerto Rico Sch. Med.*
- 11:00 DDD73 **395.04** Interactions between mammalian target of rapamycin (mTOR) and extracellular signal-regulated kinase (ERK) in the amygdala and hippocampus during the consolidation of fear memory. M. E. LONERGAN*; R. J. LEIDEL; F. J. HELMSTETTER. *Univ. of Wisconsin-Milwaukee*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 DDD74 **395.05** The role of neuronal nitric oxide in the acquisition and performance of two-way active avoidance in mice. Y. GAO; S. A. HELDT*. *Univ. of Tennessee Hlth. Sci. Ctr.*
- 9:00 DDD75 **395.06** Characterization of a microRNA that enhances learning and memory. V. JOVASEVIC*; J. RADULOVIC. *Northwestern Univ.*
- 10:00 DDD76 **395.07** • The apurinic/apurimidinic endonuclease 1 (apex1) plays a role in long-term memory on context fear conditioning. M. PEREZ CARAMBOT*; A. VÁZQUEZ; N. Y. OCASIO; E. A. PÉREZ; K. P. BETANCOURT; V. RIVERA; X. FIGUEROA; A. CÁTALA; S. PEÑA DE ORTIZ. *Univ. of Puerto Rico, Rio Piedras Campus.*
- 11:00 DDD77 **395.08** Differential patterns of learning-induced ARC protein expression within the CA3 and CA1 subfields of dorsal and ventral hippocampus. C. D. HUDGINS*; T. BENHARUSH; S. KILLIANSKI; T. OTTO. *Rutgers Univ.*
- 8:00 DDD78 **395.09** The learning-dependent enhancement of ARC transcription within dorsal and ventral hippocampus is blocked by NMDA receptor antagonism. T. A. OTTO*; Y. KUMATA; C. CHIA; J. CZERNIAWSKI; F. REE. *Rutgers Univ., Rutgers Univ., Univ. of California, Irvine.*
- 9:00 DDD79 **395.10** Differential Expression of egr-1 mRNA in the prefrontal cortex and hippocampus in the context pre-exposure facilitation effect (CPFE) during adolescence. A. ASOK*; S. A. JABLONSKI; W. B. SCHREIBER; J. B. ROSEN; M. E. STANTON. *Univ. of Delaware.*
- 10:00 DDD80 **395.11** Important role of the NMDA receptor function in the basolateral amygdala for the retrieval of cued fear memories. R. SPRENGEL*; D. ARCOS-DÍAZ; P. BOTTA; I. BERTOCCHI; G. DOGBEVIA; A. LÜTHI; M. T. HASAN. *Dept. of Mol. Neurobiology, Max Planck Inst. for Med. Res., Max Planck Inst. for Med. Res., Friedrich Miescher Inst. for Biomed. Res., Max Planck Inst. for Med. Res.*
- 11:00 DDD81 **395.12** BAC transgenic chemical-genetic overexpression of alpha-CaMKII generates reversible memory deficits. A. FRANK*; D. CAI; J. SHOBE; A. SILVA. *UCLA.*
- 8:00 DDD82 **395.13** Formation of distinct cell populations in the lateral amygdala after auditory fear conditioning - A computational model. D. KIM*; D. PARE; S. S. NAIR. *Univ. of Missouri- Columbia, Rutgers State Univ.*
- 9:00 DDD83 **395.14** Development of reduced order biologically realistic cell models. D. KIM; S. PRANIT; Y. CHEN; S. S. NAIR*. *Univ. Missouri-Columbia.*
- 10:00 DDD84 **395.15** A biologically realistic computational model of the hippocampus. C. FRANKLIN*; A. HUMMOS; V. S. K. GUNTU; S. S. NAIR. *Univ. of Missouri.*
- 11:00 EEE1 **395.16** Distinct tone responsive cell populations in the basal amygdala after fear training - A modeling study. Y. CHEN*; D. PARÉ; S. S. NAIR. *Univ. of Missouri - Columbia, Rutgers State Univ.*
- 8:00 EEE2 **395.17** Suppression of 50 khz ultrasonic vocalizations as a sensitive measure of renewal in the fear-conditioned rat. E. W. LARSON*; K. HONN; R. TODD; J. PANKSEPP; B. SORG. *Washington State Univ., Washington State Univ.*
- 9:00 EEE3 **395.18** Females are protected from the effects of chronic morphine, while males are impaired in fear extinction and recall. D. L. RAMOS-ORTOLAZA*; E. M. PEREZ-TORRES; J. K. ALVARADO; A. TORRES-REVERON; E. SANTINI. *Nova Southeastern Univ., Ponce Sch. of Med. and Hlth. Sci., Univ. of Puerto Rico.*
- 10:00 EEE4 **395.19** Acute morphine after fear learning: Implications for sex-specific PTSD treatment. E. M. PÉREZ-TORRES*; D. L. RAMOS-ORTOLAZA; J. K. ALVARADO; E. SANTINI; A. TORRES-REVERON. *Ponce Sch. of Med. and Hlth. Sci., Nova Southeastern Univ., Univ. of Puerto Rico.*

POSTER

396. Appetitive and Drug Memory Reconsolidation and Extinction

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 EEE5 **396.01** Effects of dopamine receptor antagonism on the destabilisation of amygdala-dependent appetitive or aversive memories. A. L. MILTON*; E. C. ILIOI; P. RATANO; E. MERLO; C. A. M. BANNON; J. C. BRADLEY-WATSON; R. HARPER; B. J. EVERITT. *Univ. of Cambridge.*
- 9:00 EEE6 **396.02** Anisomycin in the medial prefrontal cortex suppresses reconsolidation of cocaine-associated memories after extinction but not forced abstinence in the rat self-administration model. R. TODD*; B. SORG; M. SLAKER; L. CHURCHILL. *Washington State Univ.*
- 10:00 EEE7 **396.03** Critical role for dorsal hippocampus in recent drug cue memories. X. Y. XUE*; J. LIU; L. XUE; Y. HE; J. HE; L. LU. *Peking Univ.*
- 11:00 EEE8 **396.04** Src tyrosine kinase in the dorsal hippocampus regulates cocaine memory reconsolidation. A. M. WELLS*; X. XIE; A. A. ARGUELLO; M. A. BLANTON; A. M. REITTINGER; S. J. STRINGFIELD; R. A. FUCHS. *Univ. of North Carolina At Chapel Hill.*
- 8:00 EEE9 **396.05** Protein kinase A in the basolateral amygdala controls the reconsolidation of contextual cocaine memories that promote cocaine-seeking behavior. A. A. ARGUELLO*; A. M. WELLS; M. A. HODGES; H. LARA, 3rd; X. XIE; S. J. STRINGFIELD; R. A. FUCHS. *Univ. of North Carolina Chapel Hill.*
- 9:00 EEE10 **396.06** Role of nicotinic acetylcholine receptors in cocaine context-induced impulsive decision making in rats. X. XIE*; A. A. ARGUELLO; A. M. REITTINGER; A. M. WELLS; R. A. FUCHS. *Univ. North Carolina, Univ. of North Carolina at Chapel Hill.*
- 10:00 EEE11 **396.07** Post-session anisomycin infusion into amygdala central nucleus disrupts enhanced rate of learning. F. SCHIFFINO*; P. HOLLAND. *Johns Hopkins Univ.*
- 11:00 EEE12 **396.08** Characterization of Arc expression in corticolimbic areas as a result of cocaine-cue memories. Y. ALAGHBAND*; A. J. KHALAJ; A. J. SCHIFFMAN; J. F. GUZOWSKI; J. F. MARSHALL. *Univ. of California, Irvine.*
- 8:00 EEE13 **396.09** NMDA receptor antagonists MK-801 and memantine interfere with cocaine-induced conditioned activity. J. F. MARSHALL*; Y. ALAGHBAND; S. AZARNIA; A. J. KHALAJ. *Univ. of California, Irvine.*
- 9:00 EEE14 **396.10** • Role of the noradrenergic locus coeruleus complex in memory consolidation during reacquisition of heroin place preference. E. L. CUMMINS*; E. BOUGHNER; J. GRANT; A. RICCHETTI; D. KWIATKOWSKI; F. LERI. *Univ. Guelph.*
- 10:00 EEE15 **396.11** Adenosine receptor stimulation during extinction training produces lasting effects on cocaine seeking. C. E. O'NEILL*; B. D. HOBSON; R. K. BACHTELL. *Univ. of Colorado.*

- 11:00 EEE16 **396.12** Cocaine, but not morphine, self administration impairs over expectation-induced extinction learning. F. LUCANTONIO*; Y. SHAHAM; G. SCHOENBAUM. *NIDA, Univ. of Maryland.*
- 8:00 EEE17 **396.13** Characterizing the role of sap102 in nucleus accumbens medium spiny neurons after cocaine treatment. P. A. NEUMANN*; Y. DONG; O. SCHLÜTER. *Univ. of Pittsburgh, Univ. of Pittsburgh, European Neurosci. Inst.*
- 9:00 EEE18 **396.14** Disruption of reconsolidation disrupts maintenance of the persistent presynaptic structural changes that accompany long-term facilitation in *Aplysia*. P. Y. SUN*; S. CHEN; D. CAI; A. C. ROBERTS; D. GLANZMAN. *Univ. of California - Los Angeles, Univ. of California - Los Angeles, David Geffen Sch. of Med. at UCLA, Integrative Ctr. Learn. Mem.*
- 10:00 EEE19 **396.15** A cellular model of memory reconsolidation: Reactivation-dependent destabilization and restabilization at the sensory to motor neuron synapse in *Aplysia*. J. DO; S. LEE; C. KWAK; J. SHIM; J. KIM; H. KIM; D. JANG; J. LEE; K. LEE; M. C. MINIACI; C. H. BAILEY; E. R. KANDEL; B. KAANG*. *Seoul Natl. Univ., Seoul Natl. Univ., Seoul Natl. Univ., Kyungpook Natl. Univ., Hannam Natl. Univ., Kyungpook Natl. Univ., Columbia Univ.*
- 11:00 EEE20 **396.16** Investigating remapping and replay in a spatial memory reconsolidation task in rats. B. J. JONES*; D. LYTLE; Z. TRAHAN; M. TATSUNO; J. FELLOUS. *Univ. Arizona, Univ. of Arizona, Univ. of Lethbridge.*
- 8:00 EEE21 **396.17** Heroin alters learning processes that mediate conditioned reinforcement. J. MORRISON*; A. ANOR; N. HEMMES; R. RANALDI. *Queens Col, CUNY, The Grad. Ctr., Queens College, CUNY.*
- 9:00 EEE22 **396.18** ▲ Differential effects of cigarette smoke containing either high or low levels of nicotine during adolescence on locomotor activity and novelty seeking behavior. M. C. GUTHIERREZ*; A. C. MANHÃES; C. C. FILGUEIRAS; C. C. CAVINA; V. NAIFF; A. R. CARVALHO; Y. A. VILLAÇA. *Univ. Do Estado Do Rio De Janeiro, Univ. do Estado do Rio de Janeiro.*
- 11:00 EEE26 **397.04** Molecular profiling in a knowledge base of hippocampal neurons. C. L. REES*; C. M. WHITE; D. W. WHEELER; D. J. HAMILTON; A. O. KOMENDANTOV; S. T. MACKESEY; G. A. ASCOLI. *Krasnow Inst. for Advanced Study.*
- 8:00 EEE27 **397.05** Hippocampal ripples predict subsequent forgetting in macaques. B. N. CASSIDY*; T. K. LEONARD; E. F. MURPHY; K. L. HOFFMAN. *Perception and Plasticity Laboratory, York Univ.*
- 9:00 EEE28 **397.06** Hippocampal oscillations during memory-driven visual exploration in the macaque. R. MONTEFUSCO-SIEGMUND*; T. K. LEONARD; E. F. MURPHY; K. L. HOFFMAN. *York Univ., Ctr. for Vision Res., York Univ., York Univ., York Univ.*
- 10:00 EEE29 **397.07** Target detection and neural predictors of subsequent memory. T. K. LEONARD*; V. CHAU; E. F. MURPHY; K. L. HOFFMAN. *York Univ., York Univ.*
- 11:00 EEE30 **397.08** Ripple events in mouse hippocampal EEG reflect prior behavioral experience. C. M. ALTIMUS*; J. HARROLD; D. FOSTER. *Johns Hopkins Sch. of Med.*
- 8:00 EEE31 **397.09** Parsing of extended hippocampal replays in a Y maze. D. J. FOSTER*; X. WU. *Johns Hopkins Univ. Sch. of Med.*
- 9:00 EEE32 **397.10** Replay memory requires NMDA receptors for encoding but not retrieval, and persists without degradation for many hours after the encoding experience. D. SILVA*; T. FENG; D. FOSTER. *Johns Hopkins Univ. Sch. Of Med.*
- 10:00 EEE33 **397.11** Hippocampal replays modulate prefrontal neuronal activities in a spatial alternation task. X. WU*; D. FOSTER. *Johns Hopkins Univ. Sch. Of Med.*
- 11:00 EEE34 **397.12** Sequential activation of hippocampal place cells during replay slows down with experience. T. FENG*; D. SILVA; D. FOSTER. *Johns Hopkins Univ. SOM.*
- 8:00 EEE35 **397.13** Selective impairment of hippocampal sharp wave ripples and memory reactivation in a mouse model of cognitive disease. J. SUH*; D. J. FOSTER; H. DAVOUDI; M. A. WILSON; S. TONEGAWA. *MIT, MIT, The Johns Hopkins Univ. Sch. of Med., The Johns Hopkins Univ. Sch. of Med.*

POSTER

397. Learning and Memory: Hippocampal Circuits I

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 EEE23 **397.01** Quantification and modeling of electrophysiological phenotypes of hippocampal neurons. A. O. KOMENDANTOV*; D. W. WHEELER; C. L. REES; D. J. HAMILTON; C. M. WHITE; G. A. ASCOLI. *George Mason Univ.*
- 9:00 EEE24 **397.02** The Hippocampome: Neuron classification and knowledge base for the rodent hippocampus. D. W. WHEELER*; C. WHITE; C. L. REES; D. J. HAMILTON; A. O. KOMENDANTOV; S. T. MACKESEY; G. A. ASCOLI. *The Krasnow Inst. For Advanced Study.*
- 10:00 EEE25 **397.03** Neuroinformatic infrastructure for a knowledge base of hippocampus neurons. D. J. HAMILTON*; D. W. WHEELER; A. O. KOMENDANTOV; S. T. MACKESEY; C. L. REES; C. M. WHITE; G. A. ASCOLI. *George Mason Univ.*
- 9:00 EEE36 **397.14** Significance of topographically constrained connectivity for a large-scale model of the hippocampus. G. J. YU*; B. S. ROBINSON; P. HENDRICKSON; D. SONG; T. W. BERGER. *USC.*
- 10:00 EEE37 **397.15** Creation of a large-scale, biologically realistic model of the hippocampus. P. HENDRICKSON*; G. J. YU; B. S. ROBINSON; D. SONG; T. W. BERGER. *USC.*
- 11:00 EEE38 **397.16** Incorporation of synaptic plasticity rules in a large-scale model of the hippocampus. B. ROBINSON*; G. J. YU; P. HENDRICKSON; D. SONG; T. W. BERGER. *USC.*
- 8:00 EEE39 **397.17** The role of the ventral dentate gyrus in olfactory learning and memory. C. S. WEEDEN*; N. J. HU; L. U. N. HO; R. P. KESNER. *Univ. of Utah.*
- 9:00 EEE40 **397.18** A two-component model of hippocampal phase precession. F. S. CHANCE*; J. C. MAGEE. *Janelia Farm Res. Campus/Howard Hughes Med. Inst.*
- 10:00 EEE41 **397.19** The effect of delay-dependent working memory demand on hippocampal-prefrontal synchrony during awake behavior and sleep. H. L. HALLOCK*; A. L. GRIFFIN. *Univ. of Delaware.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 EEE42 **397.20** Erasure of hippocampal learning and plasticity following transient blockade of dentate gyrus. N. MADRONAL*; J. DELGADO-GARCÍA; A. FERNÁNDEZ-GUIZÁN; J. CHATTERJEE; M. KÖHN; A. JAIN; T. TSETSENIS; C. GROSS; A. GRUART. *European Mol. Biol. Lab., Univ. Pablo de Olavide, European Mol. Biol. Lab.*
- 8:00 EEE43 **397.21** Consolidation of synaptic patterns from proximal into distal dendrites of a hippocampal CA1 pyramidal neuron. M. W. REMME*; H. SPREKELER; U. BERGMANN; S. SCHREIBER; R. KEMPTER. *Humboldt-Universitaet Zu Berlin.*
- 9:00 EEE44 **397.22** ▲ Transgenic activation of the same entorhinal inputs leads to the same hippocampal network response. J. R. DICKINSON; A. P. WEIBLE*; D. C. ROWLAND; L. DEBLANDER; H. WU; C. G. KENTROS. *Univ. Oregon, NTNU, Univ. of Oregon.*
- 10:00 EEE45 **397.23** Hippocampus is critical for discriminating identical objects using visual context in the background. J. LEE*; S. KIM; I. LEE. *Seoul Natl. Univ.*
- 11:00 EEE46 **397.24** The influence of ectopic migration of dentate granule cells on hippocampal function: A computational model. C. E. MYERS*; Y. J. BEN-EFRAIM; K. BERMUDEZ-HERNANDEZ; P. AVCU; H. E. SCHARFMAN. *Dept. of Veterans Affairs, New Jersey Healthcare Syst., New Jersey Med. School-University of Med. and Dent. of New Jersey, Nathan Kline Inst. for Psychiatric Res., New York Univ. Langone Med. Ctr.*
- 8:00 EEE47 **397.25** Global effects of theta precession on the hippocampal memory map. Y. A. DABAGHIAN*; M. ARAI. *Jan and Dan Duncan Neurolog. Res. Institute, Baylor Col. of Med., Jan and Dan Duncan Neurolog. Res. Institute, Baylor Col. of Med.*
- 9:00 EEE48 **397.26** Selective lesions of the hippocampus in rhesus monkeys fail to affect performance across a battery of standard memory tasks. B. ZHANG; S. FONG; J. YOUNG; C. HEROLD; E. A. MURRAY; H. EICHENBAUM; P. R. RAPP*. *NIH, Natl. Inst. on Aging, NIMH, Boston Univ.*
- 10:00 EEE49 **397.27** Traces of Memory in Hippocampal Synapses. E. J. WALLACE*; A. PAVLOWSKY; J. ZHONG; A. A. FENTON; J. ALARCON. *SUNY Downstate, SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr., New York Univ.*
- 11:00 EEE50 **397.28** ● Modulation of behavioral outcomes by dietary choline in male rats with extensive hippocampal damage. J. E. GARDNER*; S. PADUNG TIN; A. TILDEN; M. GLENN. *Colby Col.*
- 8:00 EEE51 **397.29** Preplay of spatial experience in the rat hippocampus. G. DRAGOI*; S. TONEGAWA. *MIT.*
- 9:00 EEE52 **397.30** Stress-induced spatial learning and memory deficits and hippocampal neuroprotection by the glutamate transporter activator ceftriaxone. J. C. MARSHALL*; J. A. SCHROEDER; S. M. RAWLS. *Connecticut Col., Temple Univ. Sch. of Med., Ctr. for Substance Abuse Research, Temple University.*

POSTER

398. Reward: Motivational Mechanisms

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 EEE53 **398.01** Examining the influence of punishment on the neural substrates of inhibitory control over a reward-related stimulus in opiate users. D. O'CONNOR*; S. ROSSITER; R. HESTER. *Univ. of Melbourne.*
- 9:00 EEE54 **398.02** Opiate withdrawal triggers a molecular memory switch between extracellular signal-regulated kinase and alpha-camkii signaling substrates in the basolateral amygdala. S. R. LAVIOLETTE*; D. C. LYONS; W. RUSHLOW. *Univ. of Western Ontario, Univ. of Western Ontario.*
- 10:00 EEE55 **398.03** Coding of reward uncertainty in the primate lateral hypothalamic neurons. A. NORITAKE*; K. NAKAMURA. *Kansai Med. Univ.*
- 11:00 EEE56 **398.04** What role does octopamine play in behavioral control in *Drosophila*? C. DAMRAU*; J. COLOMB; B. BREMBS. *Free Univ. of Berlin.*
- 8:00 EEE57 **398.05** Contribution of a valuation and an effort system to motivation: A behavioral approach in monkeys. A. SAN-GALLI; C. VARAZZANI; S. BOURET*. *Inst. du Cerveau et de la Moelle Epiniere.*
- 9:00 EEE58 **398.06** Impact of relaxin-3/RXFP3 signaling deletion on voluntary alcohol consumption in C57BL/6J alcohol-preferring mice. A. W. WALKER*; C. M. SMITH; A. J. LAWRENCE; A. L. GUNDLACH. *Florey Neurosci. Inst.*
- 10:00 EEE59 **398.07** Hippocampal input to the nucleus accumbens reinforces behavior and drives cocaine-induced locomotion. J. P. BRITT*; F. BENALIOUAD; R. A. MCDEVITT; R. A. WISE; A. BONCI. *Natl. Inst. On Drug Abuse-IRP, NIH.*
- 11:00 EEE60 **398.08** ● Two pathways of thalamic cortical connection in optogenetic stimuli. S. LEE*. *KIST.*
- 8:00 EEE61 **398.09** Motivational modulation of dopaminergic and GABAergic activity in the substantia nigra. M. A. ROSSI*; D. FAN; J. W. BARTER; H. H. YIN. *Duke Univ.*
- 9:00 EEE62 **398.10** Pavlovian-to-instrumental transfer in an avoidance learning fMRI task. A. H. LEWIS*; M. A. NIZNIKIEWICZ; N. NADLER; A. R. DELAMATER; M. R. DELGADO. *Rutgers Univ. Dept. of Psychology, Univ. of Illinois, Brooklyn Col. - City Univ. of New York.*
- 10:00 EEE63 **398.11** Fos expression after exposure to social and nicotine rewards or reward-conditioned environments in adolescent male rats. N. A. PEARTREE*; A. M. WILLIAMS; L. E. HOOD; K. N. CHANDLER; J. GEONAGA; R. M. BASTLE; J. L. NEISEWANDER. *Arizona State Univ., Arizona State Univ.*
- 11:00 EEE64 **398.12** Interacted neuronal activities between hippocampus and amygdala modulate discrimination behavior expecting for different probability of reward in the rat. S. TERADA*; S. TAKAHASHI; Y. SAKURAI. *Kyoto Univ., Doshisha Univ.*
- 8:00 EEE65 **398.13** Possible roles of the primate paraventricular thalamic nucleus in motivation and effort. S. HONG*; O. HIKOSAKA. *NEI, NIH.*

- 9:00 EEE66 **398.14** ● ▲ Visual attention to high caloric food in male subjects. D. VELAZQUEZ-LOPEZ*; A. TOSCANO ZAPIEN; W. ZEPEDA RUIZ; D. VELAZQUEZ-MARTINEZ. *Univ. Nacional Autónoma De México., Univ. Nacional Autonoma de Mexico.*
- 10:00 EEE67 **398.15** ● ▲ Effect of binge eating over hunger and satiety cues in rats. E. G. FONSECA DE LA CRUZ*; A. AGOITIA-POLO; O. ALVARADO-CARRILLO; D. N. VELÁZQUEZ-MARTÍNEZ. *Univ. Nacional Autonoma De México, UNAM.*
- 11:00 EEE68 **398.16** Brain stimulation reward thresholds are decreased by a history of binge-like food intake but increased in the presence of binge-related cues. S. L. PARYLAK*; E. P. ZORRILLA. *The Scripps Res. Inst., Univ. of California - San Diego.*
- 8:00 EEE69 **398.17** Emerging systems-level understanding of the motivation to engage in voluntary wheel running in the rat. J. C. BASSO*; J. I. MORRELL. *Rutgers Univ.*
- 9:00 EEE70 **398.18** Nucleus accumbens core neuron firing is modulated by motivational state. F. AMBROGGI*; N. ODEAN; H. L. FIELDS. *UCSF/Gailo Ctr.*
- 10:00 EEE71 **398.19** Sexual behavior-related neuronal responses in the nucleus accumbens shell of male rats. J. MATSUMOTO*; S. URAKAWA; E. HORI; M. F. P. D. ARAUJO; Y. SAKUMA; T. ONO; H. NISHIJO. *Univ. of Toyama, Univ. of Toyama, Nippon Med. Sch.*
- 11:00 EEE72 **398.20** Selective lesions of pedunculopontine tegmental nucleus cholinergic cells fail to affect heroin or cocaine reward in rats. S. STEIDL*; H. WANG; M. MORALES; R. A. WISE. *Natl. Inst. On Drug Abuse Intramural Res. Program, NIH, Natl. Inst. on Drug Abuse Intramural Res. Program, Natl. Inst. on Drug Abuse Intramural Res. Program.*
- 8:00 EEE73 **398.21** The effect of forced exercise on reward processes assessed using delay discounting, conditioned place preference for cocaine, and delta FosB in the nucleus accumbens. T. M. MOSCHAK*; N. B. MINER; S. H. MITCHELL. *Oregon Hlth. & Sci. Univ.*
- 9:00 EEE74 **398.22** Brain stimulation reward and the hippocampus. G. VEGA FLORES*; A. GRUART; J. M. DELGADO-GARCÍA. *Pablo De Olavide Univ.*
- 10:00 EEE75 **398.23** Decreased motivational value in an instrumental task after a single injection of haloperidol with quantitative assessment of dopamine D2-like receptor occupancy. Y. HORI*; Y. NAGAI; A. OH-NISHI; T. SUHARA; T. MINAMIMOTO. *Natl. Inst. of Radiological Sci.*
- 11:00 EEE76 **398.24** Encoding of reward size and motor effort by tonically and phasically active neurons of the monkey striatum. S. RAVEL*; S. NOUGARET. *Inst. De Neurosciences De La Timone.*
- 8:00 EEE77 **398.25** Increased food motivation and impaired behavioral inhibition after μ -opioid receptor stimulation in the rat prefrontal cortex. R. A. SELLECK; M. E. ANDRZEJEWSKI; K. SADEGHIAN; B. A. BALDO*. *Unvi Wisconsin Madison Sch. Med., Waisman Ctr., Univ. of Wisconsin-Madison Dept. Psychiatry, Unvi Wisconsin Madison Sch. Med.*
- 9:00 EEE78 **398.26** Studies on the effects of μ -opioid receptor stimulation in prefrontal cortex (PFC): Role in PFC-based cognitive function, and activation of arousal-related hypothalamic PFC projection targets. J. D. MENA*; R. C. SPENCER; C. W. BERRIDGE; B. A. BALDO. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

POSTER

399. Neural Processing of Fear and Anxiety I

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 EEE79 **399.01** Comparison of conditioned fear behavior of C57BL/6 substrains in classical tests versus an automated home cage (DualCage) environment. T. HAGER; S. N. MANIVANNAN; J. YOUN; A. W. PIENEMAN; R. F. JANSEN*; O. STIEDL. *Sylycs BV, Bioobserve, VU Univ.*
- 9:00 EEE80 **399.02** The dynamics of conditioned fear behavior of C57BL/6J mice in an automated home cage (DualCage) environment. O. STIEDL*; S. N. MANIVANNAN; T. HAGER; A. W. PIENEMAN; R. F. JANSEN. *VU Univ., Bioobserve, Sylycs BV, VU Univ.*
- 10:00 EEE81 **399.03** Neural substrates mediating the emotional response to a threat. J. R. SHUMEN*; D. C. KNIGHT; K. H. WOOD. *UAB Civitan Res. Ctr., UAB Civitan Res. Ctr., UAB Civitan Res. Ctr.*
- 11:00 EEE82 **399.04** Emotional modulation of the startle response within the amygdala. K. H. WOOD*; L. W. VERHOEF; D. C. KNIGHT. *Univ. of Alabama at Birmingham, Dept. of Psychology, Univ. of Alabama at Birmingham.*
- 8:00 EEE83 **399.05** Human fear conditioning in the absence of a functional amygdala. D. R. BACH*; R. HURLEMANN; R. J. DOLAN. *Univ. Col. London, Univ. of Bonn.*
- 9:00 EEE84 **399.06** Pharmacogenetic activation of CCK interneurons in lateral amygdala nuclei increases unconditioned acoustic startle responses in mice. T. CURRY*; S. ROMANESCU; J. KIM; J. YEOMANS. *Univ. of Toronto, Univ. of Toronto.*
- 10:00 FFF1 **399.07** Investigation of the interaction between environment and genetic influences in the anxiety disorders etiology through cross-breeding procedure. E. L. MEIRELLES*; C. E. B. SILVA; V. C. GOMES; F. P. ROSSETI; M. RIBEIRO; P. F. GARDINO; J. LANDEIRA-FERNANDEZ. *Puc-Rio; UFRJ, PUC-Rio, UFRJ.*
- 11:00 FFF2 **399.08** ● Acupressure for anxiety in pre-hospital transport settings: A systematic review and meta analysis. E. LEE*; J. YOO; J. LEE; S. CHO. *Col. of Nurse Science, Kyung Hee Univ., Dankook Univ. High Sch., Col. of Korean Medicine, Kyung Hee Univ.*
- 8:00 FFF3 **399.09** Treatment with the rapid antidepressant ketamine accelerates the extinction of fear memory in rats: Implications for the treatment of Post-Traumatic Stress Disorder. N. M. FOURNIER; P. LICZNERSKI; M. BANASR; R. S. DUMAN*. *Yale Univ. Sch. Med.*
- 9:00 FFF4 **399.10** Changes in functional connectivity resulting from repeated competitive encounters in mice. T. B. FRANKLIN*; A. VYSSOTSKI; C. GROSS. *European Mol. Biol. Lab., Univ. of Zurich/ETH Zurich.*
- 10:00 FFF5 **399.11** Behavioral differences in anxiogenic actions of systemic administration of amphetamine and the effect of local injection in Reticular Thalamic Nucleus. M. GARCIA-RAMIREZ*; G. AVILA VELARDE; E. CHUCMEZA; L. DE HARO; J. ACEVES. *ENCB-IPN, ENCB-IPN, CINVESTAV-IPN.*
- 11:00 FFF6 **399.12** Anxiolytic properties of Nunavik Rhodiola Rosea in the rat. C. CAYER*; F. AHMED; V. FILION; J. S. JAMES; J. C. MACKAY; A. CUERRIER; Z. MERALI; J. T. ARNASON. *IMHR / Univ. of Ottawa, The Ctr. for Advanced Res. in Envrn. Genomics, Univ. de Montreal, Univ. of Ottawa / Inst. of Mental Hlth. Res.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 FFF7 **399.13** Allopregnanolone reverses the related anxiety effect of maternal separation during breastfeeding in adult males. I. RIVEROS-BARRERA; C. BRICEÑO; D. MORENO-TOVAR; Z. DUENAS*. *Universida Nacional de Colombia, Univ. Nacional de Colombia, Univ. Nacional De Colombia.*
- 9:00 FFF8 **399.14** ▲ Elevated fear and anxiety behavior in lynx2 knock-out mice is inconsistent over several different behavioral paradigms. A. CROTTY; R. NISHI; F. ECHENSTEIN; A. POTTER; P. NEWHOUSE; D. J. TOUFEXIS*. *Univ. of Vermont, Univ. of Vermont, Univ. of Vermont, Vanderbilt Univ.*
- 10:00 FFF9 **399.15** Chemical stimulation of central nucleus of amygdala induces yawning response in rats. N. KUBOTA*; S. AMEMIYA; T. NISHIJIMA; S. YANAGITA; I. KITA. *Tokyo Univ. of Sci., Tokyo Metropolitan Univ., Tokyo Univ. of Sci.*
- 11:00 FFF10 **399.16** The anxiolytic-like effect of a novel delta opioid receptor agonist KNT-127 in rats. A. SUGIYAMA*; A. SAITOH; M. YAMADA; M. INAGAKI; J. OKA; H. NAGASE; M. YAMADA. *Dept. of Neuropsychopharmacology, NIMH, NCNP, Lab. Pharmacol., Fac. Pharm. Sci., Tokyo Univ. Sci., Lab. of Med. Chemistry, Sch. of Pharmacy, Kitasato Univ.*
- 8:00 FFF11 **399.17** Neural mechanisms of emotion regulation in childhood anxiety. K. M. HUM*; K. MANASSIS; M. D. LEWIS. *Univ. of Toronto, The Hosp. for Sick Children, Radboud Univ.*
- 9:00 FFF12 **399.18** Adolescent sensitivity to learning fearful associations: disruptions by corticosterone. M. L. DEN*; R. RICHARDSON. *Univ. of New South Wales, Univ. of New South Wales.*
- 10:00 FFF13 **399.19** Presence of the mother controls the transition between attachment and fear learning, and alters gene expression in the amygdala of infant rats. R. M. SULLIVAN*; G. A. BARR. *NKI & NYU Sch. of Med., Children's Hosp. of Philadelphia, Perelman Sch. of Medicine, Univ. of Pennsylvania.*
- 11:00 FFF14 **399.20** Mechanisms of Placebo Anxiolysis. B. MEYER*; R. KALISCH. *Univ. Med. Ctr. Hamburg Eppendorf.*
- 8:00 FFF15 **399.21** Long-term dendritic spine remodeling in the rat lateral amygdala following fear conditioning involves circuit specific pruning of dendritic spines from low density dendrites. D. DUMITRIU*; Y. S. GROSSMAN; R. GONZAGA; C. FARB; W. G. JANSSEN; J. E. LEDOUX; J. H. MORRISON. *Mount Sinai Sch. Med., New York Univ.*
- 9:00 FFF16 **399.22** Differential rearing and the acquisition of Pavlovian conditioned fear. E. K. REINHARDT*; M. E. CAIN. *Kansas State Univ.*
- 10:00 FFF17 **399.23** Anxiety-like behavior in mice with oral cancer. D. G. BERNABE*; Y. YE; D. DANG; B. SCHMIDT. *New York Univ.*
- 9:00 FFF19 **400.02** Acute withdrawal related deficits produced by morphine and amphetamine in rats share determinants. W. WHITE*; C. N. WHITE; C. J. MORRIS; I. M. WHITE. *Morehead State Univ., Wayne State Univ.*
- 10:00 FFF20 **400.03** Sex differences in the depressive-like effects of kappa opioid receptor activation in rats. S. E. RUSSELL; A. B. RACHLIN; K. L. SMITH; E. H. CHARTOFF*. *Harvard Med. Sch.*
- 11:00 FFF21 **400.04** Chronic social defeat in adolescent male mice: BDNF transcripts in the hippocampus and prefrontal cortex. S. CHIAVEGATTO*; C. E. AMARAL; L. ALVES-DOS-SANTOS; R. B. S. SOARES. *Biomed. Sci. Inst. - Univ. of Sao Paulo, Natl. Inst. for Developmental Psychiatry- (INCT-CNPq).*
- 8:00 FFF22 **400.05** High novelty seeking behavior: A rat model of postpartum depression. J. W. FERNANDEZ*; J. A. GRIZZELL; R. M. PHILPOT; J. M. HARRELL; L. WECKER. *Univ. of South Florida.*
- 9:00 FFF23 **400.06** Physical activity correlates with hunger in patients with eating disorders. A. YAMAMOTOVA*; J. BULANT; H. PAPEZOVA. *Charles Univ, 3rd Fac Med., Charles Univ. in Prague, First Fac. of Med.*
- 10:00 FFF24 **400.07** Neuroimaging in primates carrying variants of a novel serotonin transporter polymorphism reveals differences in serotonin 2A receptor binding in the insula and morphological volume changes in the anterior hippocampus. A. M. SANTANGELO; T. D. FRYER; S. J. SAWIAK; R. J. TAIT; H. F. CLARKE; Y. SHIBA; P. J. RISS; V. FERRARI; Y. T. HONG; J. SUCKLING; A. ROBERTS*. *Univ. of Cambridge, Behavioural and Clin. Neurosci. Inst., Wolfson Brain Imaging Ctr., Univ. of Cambridge, Univ. of Cambridge, Univ. Cambridge.*
- 11:00 FFF25 **400.08** Increased sensitivity to external negative feedback in unmedicated subjects with major depression. S. SPINELLI*; J. SPAETI; J. CHUMBLEY; J. BRAKOWSKI; N. DOERIG; M. GROSSE HOLTFOORTH; E. SEIFRITZ. *Psychiatric Univ. Hosp. Zurich, Univ. of Zurich, Univ. of Zurich.*
- 8:00 FFF26 **400.09** How do you feel after napping? Influence of post-nap cortisol levels and sleep architecture. J. C. KNUDSEN*; S. C. MEDNICK; E. MCDEVITT; J. M. WOLF. *Brandeis Univ., Univ. of California Riverside.*
- 9:00 FFF27 **400.10** Genetic and experiential factors modulate ethanol consumption in rats. M. R. PAPINI*; L. MANZO; M. J. GOMEZ; J. E. CALLEJAS-AGUILERA; E. CANO; A. GARCIA; A. RUS; A. FERNÁNDEZ-TERUEL; C. TORRES. *Texas Christian Univ., Univ. de Jaen, Univ. Autonoma de Barcelona.*
- 10:00 FFF28 **400.11** Patterns of caffeine use throughout the day and its relation with motivation for caffeine ingestion. J. L. MARIANO*; F. R. L. GODOL; J. C. F. GALDUROZ; S. POMPEIA. *Univ. Federal De São Paulo.*
- 11:00 FFF29 **400.12** Sex differences in valence/novelty interactions in affective networks. J. M. ANDREANO*; B. DICKERSON; L. FELDMAN BARRETT. *Massachusetts Gen. Hosp., Massachusetts Gen. Hosp., Massachusetts Gen. Hosp.*
- 8:00 FFF30 **400.13** ● Use of awake animal imaging to finger print for CNS liability. C. F. FERRIS*; M. NEDELMAN. *Northeastern Univ., Ekam Imaging.*

POSTER

400. Motivation and Emotions: Negative Emotional States

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 FFF18 **400.01** Emotional aftermath of decisions: lasting effects of regret and pride assessed by functional connectivity analysis. H. ERYILMAZ*; D. VAN DE VILLE; S. SCHWARTZ; P. VUILLEUMIER. *LABNIC, Univ. of Geneva, Univ. of Geneva, Univ. of Geneva.*

- 9:00 FFF31 **400.14** Subjective social status moderates the relationship between the facial width-to-height ratio and individual differences in reactive aggression in men. S. M. GOETZ*; R. M. MILLER; E. LOZOYA; J. CARRÉ. *Wayne State Univ.*
- 10:00 FFF32 **400.15** ▲ Assessment of the influence of the emotionally negative and neutral TV-news plots: an EEG study. S. TUKAIEV*; Y. HAVRYLETS; S. KRIZHANOVSKIY; V. RIZUN; M. MAKARCHUK; I. ZIMA; O. RADCHUK. *Natl. Taras Shevchenko Univ. of Kyiv, Inst. of Biol., Natl. Taras Shevchenko Univ. of Kyiv, Inst. of Journalism, Natl. Taras Shevchenko Univ. of Kyiv, Inst. of Biol., Inst. of Communication and Health, Univ. della Svizzera italiana.*
- 11:00 FFF33 **400.16** Negative affect drives ethanol intake during drinking-in-the-dark (DID) sessions in P-rats. C. L. DUVAUCHELLE*; N. THAKORE; J. RENO; R. GONZALES; T. SCHALLERT; M. ROTKO; E. KUSEY; J. KRIEGER; J. YANG; A. MAGRO; O. DURRANI; I. SHEIKH; R. CASSIDY; K. MARWAHA; A. CEBRELLI. *Univ. of Texas, Univ. of Texas, Univ. of Texas.*
- 8:00 FFF34 **400.17** Vocal and locomotor responses of domestic chicks to social loss and reunion. L. FANUCCHI; J. PANKSEPP*; R. NEWBERRY. *Washington State Univ., Washington State Univ.*
- 9:00 FFF35 **400.18** Pattern separation of negative emotional stimuli is enhanced in depressed adults. M. A. YASSA*; S. L. LEAL; G. MCNARY; E. LEVITT. *Johns Hopkins Univ.*
- 10:00 FFF36 **400.19** Mother's trauma modulates amygdala response to infant distress. S. KIM*; P. FONAGY; J. ALLEN; U. IYENGAR; S. MARTINEZ; L. STRATHEARN. *Baylor Col. of Med., Univ. Col. London, Baylor Col. of Med., The Menninger Clin.*
- 11:00 FFF37 **400.20** Opiate withdrawal in animals selectively bred for high (HiS) and low (LoS) saccharin consumption. A. K. RADKE*; N. A. HOLTZ; A. C. HARRIS; N. E. ZLEBNIK; J. C. GEWIRTZ; M. E. CARROLL. *Univ. Minnesota, Univ. Minnesota, Univ. Minnesota.*
- 8:00 FFF38 **400.21** Neuronal population state dynamics changes following emotional learning. A. MORAN*; D. B. KATZ. *Brandeis Univ.*

POSTER

401. Motivation and Emotion: Animal Social Communication

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 FFF39 **401.01** ▲ Abnormal neuronal connectivity and social behavioral deficits in NrCAM-deficient mice. E. D. MAPPUS*; R. HAMID; R. ARMSTRONG; C. V. BUHUSI; M. C. BUHUSI. *Clemson Univ., Med. Univ. of South Carolina, Davidson Col., Utah State Univ.*
- 9:00 FFF40 **401.02** ● Changes in c-fos expression during transfer of conditioned place aversion by social interaction with a mouse treated with haloperidol. D. F. FUKUSHIRO*; T. C. F. ARAMINI; R. A. UEHARA; R. FRUSSA-FILHO. *Federal Univ. of Sao Paulo.*
- 10:00 FFF41 **401.03** ▲ Nurr-1 is induced in the prefrontal cortex of mice after a social experience. P. J. MALDONADO-CATALA*; A. VAZQUEZ; J. L. ORTIZ-LUGO; D. CORREA; S. PEÑA DE ORTIZ. *Univ. Metropolitana Cupey, Univ. of Puerto Rico.*

- 11:00 FFF42 **401.04** Impaired social, but intact non-social reinforcement learning in VPA-rat model of autism. M. R. FAVRE*; D. CHRISTODOULOU; H. MARKRAM; K. MARKRAM. *Swiss Federal Inst. of Technol. In Lausanne.*
- 8:00 FFF43 **401.05** Conditioned disgust and social behavior in rats treated with the toxin licl. C. J. CLOUTIER*; M. KAVALIERS; K. OSSENKOPP. *Univ. of Western Ontario.*
- 9:00 FFF44 **401.06** Ventrolateral prefrontal cortex lesions attenuate the production of ultrasonic vocalizations in rats. M. W. FELTENSTEIN*; R. E. SEE. *Med. Univ. South Carolina.*
- 10:00 FFF45 **401.07** ▲ Evaluating the communicative value of ultrasonic mouse pup calls. Z. ADAHMAN*; C. HOLLINGSWORTH; A. KWAKYE; A. LEGGITT; L. Y. JAN; D. YOUNG; K. SCHENK. *Randolph Col., Randolph Col., Randolph Col., Univ. of California, Howard Hughes Med. Inst., Univ. of California.*
- 11:00 FFF46 **401.08** Do ultrasonic vocalizations in golden hamsters provide information about sex of the caller, sexual arousal and motivation? M. FERNANDEZ-VARGAS*; R. E. JOHNSTON. *Cornell Univ.*
- 8:00 FFF47 **401.09** Social-stimulus-evoked activity in the female mouse hypothalamus: Influence of the reproductive cycle. K. NOMOTO*; S. Q. LIMA. *Champalimaud Neurosci. Programme.*
- 9:00 FFF48 **401.10** ● Social facilitation in domestic chicks: Increase in foraging efforts and synchronization of running. Y. OGURA*; T. MATSUSHIMA. *Hokkaido Univ., Japan Society for the Promotion of Sci. (JSPS), Hokkaido Univ.*
- 10:00 FFF49 **401.11** Oral intake of monosodium glutamate during growing period alters social behavior in a rat model of attention-deficit/hyperactivity disorder. Y. YOKOYAMA; Y. SHIMIZU; S. MISUMI; A. ISHIDA; M. YOKOI; H. HIDA*. *Nagoya City Univ. Grad Sch. Med. Sci., Nagoya City Univ. Grad Sch. Med. Sci.*
- 11:00 FFF50 **401.12** The U-field test, a novel behavioral test that is useful to measure animal's depression on the basis of sociability behavior. J. PARK; T. KIM; J. CHOI; J. LEE; P. HAN*. *Ewha Womans Univ., Ewha Womans Univ.*

POSTER

402. Motivation and Emotions: Human and Primate Social Communication

Theme F: Cognition and Behavior

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 FFF51 **402.01** Tactile stimulation of the face activates single units in the monkey amygdala. C. P. MOSHER*; P. E. ZIMMERMAN; K. M. GOTHARD. *The Univ. of Arizona, The Univ. of Arizona.*
- 9:00 FFF52 **402.02** Looking at the eyes engages single unit activity in the primate amygdala during naturalistic social interactions. P. E. ZIMMERMAN*; C. P. MOSHER; K. M. GOTHARD. *Univ. of Arizona, Univ. Of Arizona, Univ. of Arizona.*
- 10:00 FFF53 **402.03** Early amygdala damage alters the way rhesus macaques process species-specific audio-visual vocalizations. C. PAYNE*; J. BACHEVALIER. *Emory Univ., Yerkes Natl. Primate Res. Ctr.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 FFF54 **402.04** Single unit activity in the primate amygdala discriminates social stimuli in a complex scene. K. M. GOTHARD*; P. E. ZIMMERMAN; C. P. MOSHER. *Univ. Arizona, Col. Med., Univ. of Arizona, The Univ. of Arizona.*
- 8:00 FFF55 **402.05** Single unit activity in the primate amygdala during the production of facial expressions. A. J. FUGLEVAND*; P. E. ZIMMERMAN; C. P. MOSHER; K. M. GOTHARD. *Univ. Arizona, The Univ. of Arizona, The Univ. of Arizona.*
- 9:00 FFF56 **402.06** The social environment impact: Brain activation and distress during imagery of racial discrimination experiences. A. GUPTA*; G. C. GEE; A. F. LEUCHTER; M. S. COHEN; G. E. WYATT; M. O'CONNOR. *Semel Inst. of Neurosci. and Human Behavior At UCLA, UCLA, UCLA, UCLA, Univ. of Arizona.*
- 10:00 FFF57 **402.07** The midline cortical serotonergic system in social behavior traits: Positron emission tomography studies of common marmosets. C. YOKOYAMA*; A. KAWASAKI; T. HAYASHI; H. ONOE. *RIKEN Ctr. for Mol Imag Sci., RIKEN Ctr. for Mol Imag Sci.*
- 11:00 FFF58 **402.08** Neural mechanism of adaptive social behavior in Macaques. N. OOSUGI*; T. YANAGAWA; N. FUJII. *RIKEN.*
- 8:00 FFF59 **402.09** Neural correlates of empathy for happy and sad facial expressions: An fMRI study. T. IIDAKA*; T. HARADA; N. SADATO. *Nagoya University, Grad. Sch. of Medicine, Dept. of Psychiatry, Natl. Inst. for Physiological Sci.*
- 9:00 FFF60 **402.10** Seeking social reward and avoiding social punishment activate the human nucleus accumbens. G. KOHLS*; M. T. PERINO; J. D. HERRINGTON; R. T. SCHULTZ. *Ctr. For Autism Research, Children's Hosp. of Philadelphia.*
- 10:00 FFF61 **402.11** Differential states of subjective power influence spontaneous facial mimicry. E. W. CARR*; P. WINKIELMAN; C. OVEIS. *UCSD.*
- 11:00 FFF62 **402.12** Aromatase distribution in human brain demonstrated by PET with [¹¹C]cetrozole. K. TAKAHASHI*; T. HOSOYA; T. TAKASHIMA; M. TANAKA; A. ISHII; Y. NAKATOMI; S. TAZAWA; K. TAKAHASHI; H. DOI; Y. WATANABE; Y. WADA; M. SUZUKI; H. ONOE; Y. WATANABE. *RIKEN, Ctr. For Mol. Imaging Sci., Inst. of Biomaterials and Bioengineering, Grad. Sch. of Medicine, Osaka City Univ.*
- 8:00 FFF63 **402.13** Specialised processing of infant vocal sounds in the adult brain: A magnetoencephalography study. K. YOUNG*; C. PARSONS; A. STEIN; E. JEGINDØ; T. VAN HARTEVELT; M. KRINGELBACH. *Univ. of Oxford, Aarhus Univ.*
- 9:00 FFF64 **402.14** A minor change to the structure of an infant's face disrupts adults' neural processing: A unique window into early parental responses. C. PARSONS*; K. YOUNG; H. MOHSENI; M. WOOLRICH; K. THOMSEN; M. JOENSSON; L. MURRAY; T. GOODACRE; A. STEIN; M. KRINGELBACH. *Univ. of Oxford, Aarhus Univ., Univ. of Reading, John Radcliff Hosp.*
- 10:00 FFF65 **402.15** Activity in the nucleus accumbens and amygdala encodes prosocial and individualistic intuitions in social decision making. M. HARUNO*; M. KIMURA; C. FRITH. *Natl. Inst. of Information and Communication, Osaka Univ., JST/PRESTO, Tamagawa University, UCL.*
- 11:00 FFF66 **402.16** Gender differences for hemodynamic responses in brain regions activated while experiencing compassion. G. RODRÍGUEZ-NIETO; R. E. MERCADILLO; F. A. BARRIOS; J. MARTÍNEZ-SOTO*. *Univ. Nacional Autónoma De México.*
- 8:00 FFF67 **402.17** ▲ Sex and stimulus type influence emotional reactivity to aversive stimuli in adult monkeys with selective neonatal amygdala lesions. J. M. TORRES; J. RAPER; J. BACHEVALIER*. *Yerkes Natl. Primate Rese Cr, Emory Univ.*
- 9:00 FFF68 **402.18** Neonatal amygdala lesions alter pubertal timing in female rhesus macaques. S. B. Z. STEPHENS*; J. BACHEVALIER; K. WALLEN. *Emory Univ., Yerkes Natl. Primate Res. Ctr.*
- 10:00 FFF69 **402.19** Effects of neonatal amygdectomy on male group formation and hierarchical integration. D. M. SANCHEZ*; J. BACHEVALIER; K. WALLEN. *Emory Univ.*
- 11:00 FFF70 **402.20** Sex-dependent role of the amygdala in the development of emotional reactivity to threatening stimuli in infant rhesus monkeys. J. RAPER*; M. SANCHEZ; K. WALLEN; J. BACHEVALIER. *Emory Univ., Yerkes Natl. Primate Res. Ctr., Dept. of Psychiatry and Behavioral Sci.*
- 8:00 FFF71 **402.21** Neonatal perirhinal lesions alter the development of defensive responses towards social threatening stimuli in infant rhesus macaques. E. E. JOHNSON*; J. RAPER; J. BACHEVALIER. *Yerkes Natl. Primate Res. Center, Emory Univ.*
- 9:00 FFF72 **402.22** Novel automated assay for phenotyping autistic-like social deficits. M. MONBUREAU; L. TO; A. SATO; D. PROFITT; M. SHAMLOO*. *SINTN, Stanford Univ. Sch. of Med., SINTN, Stanford Univ. Sch. of Med.*
- 10:00 FFF73 **402.23** Mimicking authentic smiles - An EMG study. S. KORB*; S. WITH; P. M. NIEDENTHAL; S. KAISER; D. GRANDJEAN. *Waisman Ctr., Geneva Univ.*

POSTER

403. Novel High Resolution Imaging Approaches

Theme G: Novel Methods and Technology Development

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 FFF74 **403.01** Comparison between adeno-associated virus and biotinylated dextran amine tracers for high-throughput analysis of connectivity in the mouse brain. Q. WANG*; J. A. HARRIS; A. BERNARD; M. MORTTRUD; A. HENRY; K. M. JOINES; S. W. OH; H. ZENG; J. G. HOHMANN. *The Allen Inst. For Brain Sci.*
- 9:00 FFF75 **403.02** Investigating gene-defined neuronal populations in the developing and adult mouse brain. S. A. SORENSEN; L. MADISEN; K. HIROKAWA; S. OH; J. A. HARRIS; J. COY; A. R. JONES; A. VISEL; J. L. R. RUBENSTEIN; H. ZENG*. *Allen Inst. For Brain Sci., Lawrence Berkeley Natl. Lab., Univ. of California at San Francisco.*
- 10:00 FFF76 **403.03** Informatics pipeline for exploring projection landscape of the brain in cre and wild-type mice. L. L. NG; C. LAU; L. KUANG; Y. LI; D. FENG; Y. SUI; T. DOLBEARE; F. LEE; G. GU; W. WAKEMAN; B. WINSLOW; A. BERNARD; Q. WANG; M. J. HAWRYLYCZ; J. G. HOHMANN; C. KOCH; A. R. JONES; S. W. OH*; C. DANG; H. ZENG. *Allen Inst. for Brain Sci.*

- 11:00 FFF77 **403.04** Allen Mouse Brain Connectivity Atlas - mapping long-range axonal projections from genetically-defined cell populations in the adult mouse brain. J. A. HARRIS*; S. W. OH; B. WINSLOW; A. BERNARD; L. NG; Q. WANG; S. SORESEN; M. MORTTRUD; B. OUELLETTE; T. NGUYEN; J. HOHMANN; C. DANG; P. WOHNOUTKA; C. KOCH; A. JONES; H. ZENG. *Allen Inst. For Brain Sci.*
- 8:00 FFF78 **403.05** Whole-mount preparation for high-resolution whole brain scanning: A new tool for high-speed deep tissue imaging. J. GHOBIL*; L. SILVESTRI; L. SACCONI; J. RYGE; F. S. PAVONE; H. MARKRAM. *EPFL SV-BMI-EPFL, LENS - Univ. of Florence, Natl. Inst. of Optics (INO-CNR).*
- 9:00 FFF79 **403.06** • In vivo two-photon microscopy with a 1030 nm (high-peak-power) picosecond-pulse laser to visualize the cortex and hippocampal pyramidal neurons in H-Line mice. R. KAWAKAMI*; K. SAWADA; A. SATO; T. HIBI; Y. KOZAWA; S. SATO; H. YOKOYAMA; T. NEMOTO. *Hokkaido Univ., Hokkaido Univ., JST CREST, Tohoku Univ., Tohoku Univ.*
- 10:00 FFF80 **403.07** Singlet GRIN lens for deep in vivo multiphoton microscopy. T. A. MURRAY*; M. J. LEVENE. *Louisiana Tech. Univ., Yale Univ.*
- 11:00 FFF81 **403.08** Simultaneous visualization of multiple neuronal properties with single-cell resolution in the living rodent brain. R. AKO*; M. WAKIMOTO; H. EBISU; K. TANNO; R. HIRA; H. KASAI; M. MATSUZAKI; H. KAWASAKI. *The Univ. of Tokyo, Grad. Sch. of Med., The Univ. of Tokyo, The Univ. of Tokyo, Grad. Sch. of Med., Natl. Inst. for Basic Biol., Japan Sci. and Technol. Agency.*
- 8:00 FFF82 **403.09** • Brain-wide functional activation maps of fear memories. D. VOUSDEN*; J. EPP; M. VAN EEDE; J. DAZAI; T. RAGAN; R. M. HENKELMAN; P. W. FRANKLAND; J. P. LERCH. *Mouse Imaging Ctr., Hosp. for Sick Children, Univ. of Toronto, Tissuevision, Inc.*
- 9:00 FFF83 **403.10** The effect of high-frequency (20 Hz) rTMS on locally measured cortical response to visual stimuli. S. NEUPANE; A. VENKATESWARAN; Z. YAO; P. KROPF; M. VILLENEUVE; A. SHMUEL*. *McGill Univ., McGill Univ.*
- 10:00 FFF84 **403.11** • Improved array tomography methods for conjugate proteomic and ultrastructural analysis of central nervous system synapses. F. C. COLLMAN; J. BUCHANAN*; K. D. PHEND; K. D. MICHEVA; R. J. WEINBERG; S. J. SMITH. *Stanford Univ. Sch., Univ. of North Carolina.*
- 9:00 GGG2 **404.02** In vivo proton magnetic resonance spectroscopy regional metabolic profiles: Differences among hippocampal formation, prefrontal cortex and cerebellum in adult rats using a machine learning approach. A. GUADAÑO-FERRAZ*; I. FERNÁNDEZ-LAMO; J. PACHECO-TORRES; D. GÓMEZ-ANDRÉS; I. PULIDO-VALDEOLIVAS; P. LÓPEZ-LARRUBIA; A. MONTERO-PEDRAZUELA. *Consejo Superior de Investigaciones Científicas. Univ. Autónoma de Madrid, IdiPaz. Hosp. Universitario La Paz. Univ. Autónoma de Madrid.*
- 10:00 GGG3 **404.03** • Quantitative Manganese-enhanced MRI detection of differences between kindling-susceptible and kindling-resistant strains of rats. E. B. HUTCHINSON*; N. ELANGBAM; S. HURLEY; A. ALEXANDER; P. RUTECKI; T. SUTULA. *Univ. of Wisconsin - Madison, Univ. of Wisconsin - Madison.*
- 11:00 GGG4 **404.04** In vivo imaging of the songbird dopaminergic system. K. TOKAREV; J. HYLAND BRUNO; S. A. HELEKAR; O. TCHERNICHOVSKI; H. U. VOSS*. *Hunter College, City Univ. of New York, Hunter Col. and the Grad. Ctr. of the City Univ. of New York, The Methodist Hosp. Res. Inst., Weill Cornell Med. Col.*
- 8:00 GGG5 **404.05** The potential of the Particle-Induced X-ray Emission technique for the study of fear-memory consolidation in rats. P. F. C. JOBIM; C. E. I. SANTOS; M. BLANK; R. ROESLER*; L. AMARAL; J. F. DIAS. *Federal Univ. of Rio Grande do Sul.*
- 9:00 GGG6 **404.06** Systematic sampling with errors - the effect of a variable intersectional distance on stereological volume estimates. K. DORPH-PETERSEN*; J. ZIEGEL; A. BADDELEY; E. B. V. JENSEN. *Aarhus Univ. Hospital, Risskov, Univ. of Pittsburgh, Aarhus Univ., Heidelberg Univ., CSIRO, Aarhus Univ.*
- 10:00 GGG7 **404.07** Synthesis of a novel fluorescent rhodamine derivative to determine and bioimaging of peroxynitrite. G. AMBIKAPATHI*; K. SURESH; R. L. BABU; K. S. DEVARAJU; M. PANDURANGAPPA. *Bangalore Univ.*
- 11:00 GGG8 **404.08** Mapping the target density of Phosphodiesterase 10A in brain areas cross species using tritium-labeled AMG7980. D. C. LESTER-ZEINER*; C. BIORN; E. HU; J. MA; S. MILLER; G. HILL DELLA PUPPA; D. HWANG; J. ALLEN; D. IMMKE; J. TREANOR; H. CHEN. *Amgen, Amgen, Amgen, Amgen, Amgen.*
- 8:00 GGG9 **404.09** Comprehensive connectivity of the mouse main olfactory bulb: analysis and online digital atlas. H. DONG*; H. HINTIRYAN; L. GOU; B. ZINGG; S. YAMASHITA; M. SONG; A. GREWAL; A. TOGA. *UCLA Sch. Med.*
- 9:00 GGG10 **404.10** Dying to be seen? The biological effects of labeling neural stem cells. F. NICHOLLS*; D. UWANOGHO; E. BIBLE; B. WILLIAMS; M. MODO. *Univ. of Pittsburgh, King's Col. London.*
- 10:00 GGG11 **404.11** Using manganese-enhanced MRI to investigate the neural mechanism underlying olfactory fear conditioning. D. CHEN*; S. DODD; A. KORETSKY. *Nat Inst. Hlth.*
- 11:00 GGG12 **404.12** Brain axial and radial diffusivity changes with age and gender differences in healthy adult subjects. R. KUMAR*; A. C. CHAVEZ; P. M. MACEY; M. A. WOO; R. K. HARPER; R. M. HARPER. *UCLA, UCLA, UCLA, UCLA.*

POSTER

404. Novel Anatomical Methods II

Theme G: Novel Methods and Technology Development

Mon. 8:00 AM – Ernest N. Morial Convention Center, Hall F-J

- 8:00 GGG1 **404.01** Connexin 30 expression and frequency of connexin heterogeneity in astrocyte gap junction plaques increase with age in the retina. H. MANSOUR; L. COLE; J. R. MCCOLM; M. W. WEIBLE, II; A. KORLIMBINIS; T. CHANLING*. *Univ. of Sydney, Univ. of Sydney, Griffith Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 GGG13 **404.13** An unbiased, quantitative plate reader method for monitoring neuronal cell health and neurite outgrowth. N. KAUR*; L. KOPP; B. HANSON; M. HANCOCK; D. TIEBERG; A. HANNAY; S. HONEYAGER; R. HORTON. *Life Technologies, Life Technologies, Life Technologies*.
- 9:00 GGG14 **404.14** Use of a multispectral LED light array for the reduction of autofluorescence in brain tissue. H. DUONG; V. PIKOV; M. HAN*. *Huntington Med. Res. Inst.*
- 10:00 GGG15 **404.15** ● Characterization of pharmacodynamic properties of CNS drug using optical imaging. H. CHEN*; A. MIAGKOV; M. SATHYAMOORTHY; D. TIRUCHINAPALLI. *Caliper Life Sci.*
- 11:00 GGG16 **404.16** A novel F-18 labeled pet tracer for imaging PDE10A in the brain. Z. TU*; J. FAN; J. LI; H. JIN; P. PADAKANTI; X. ZHANG; H. FLORES; J. PERLMUTTER. *Washington Univ.*
- 8:00 GGG17 **404.17** An effective strategy for site-selective radioiodination of a modified α -neoendorphin. J. E. PICKETT; K. NAGAKURA; A. PASTERNAK; S. G. GRINNELL; S. MAJUMDAR; Y. PAN*; J. S. LEWIS; G. W. PASTERNAK. *Mem Sloan Kettering Cancer Ctr., Weill Cornell Grad. Sch. of Med. Sci., Weill Cornell Grad. Sch. of Med. Sci., Mem. Sloan-Kettering Cancer Ctr.*
- 9:00 GGG18 **404.18** Cellular assay of neurite growth from primary neural cells with only one-tenth cells by DropArray(TM) technology. J. Z. WANG; N. Y. KIM; M. LYE; E. BARD-CHAPEAU; N. JEON*. *Curiox Biosystems, Curiox Biosystems, Seoul Natl. Univ.*
- 10:00 GGG19 **404.19** A potential PET radiotracer for fatty acid amide hydrolase activity in the brain. S. SONTI*; K. QIAN; M. PANDEY; R. DUCLOS; T. DEGRADO; S. GATLEY. *Northeastern Univ., Mayo Clin.*
- 11:00 GGG20 **404.20** Quantification of Nurr1 protein levels in specific neuron populations. J. B. EELLS*; S. GUO-ROSS. *Mississippi St Univ.*
- 8:00 GGG21 **404.21** Whole skull and spinal cord cryosectioning of adult mouse, using tape-transfer sectioning technique. V. PINSKIY*; A. TOLPYGO; N. FRANCIOTTI; P. P. MITRA. *Cold Spring Harbor Lab.*
- 9:00 GGG22 **404.22** Brain-wide neuronal dynamics during motor adaptation in zebrafish. M. B. AHRENS*; J. M. LI; M. B. ORGER; D. N. ROBSON; A. F. SCHIER; F. ENGERT; R. PORTUGUES. *MCB, Harvard Univ., Cambridge University, CBL, Harvard Univ., Champalimaud Ctr. for the Unknown.*

SPECIAL PRESENTATION Ernest N. Morial Convention Center

405. The Changing Global Neuroscience Ecosystem: Why It Matters To Our Future

Mon. 1:00 PM - 2:00 PM -- New Orleans Theater B

Speaker: S.E. HYMAN, *Broad Inst.*

Globally, at an accelerating pace, the world of neuroscience is undergoing change. Important forces include public funding insecurity; pressure from governments and foundations for translational emphases in academia; withdrawal from neuroscience research in industry; steady growth of large-scale, collaborative, interdisciplinary science; and calls for transformative "big data" approaches. What do these trends mean for neuroscience worldwide? How will they influence the next generation of scientists and how we must prepare them? How can neuroscientists engage constructively in policy, scientific, and academic settings to anticipate and manage change adaptively?

studies have shown that these processes of neural repair in the adult brain involve an activity-dependence, are associated with alterations in neuronal excitability, and form specific cortical circuits, suggesting principles for the reorganizing adult brain that reflect those in the developing brain.

- 1:30 **407.01** Introduction.
- 1:35 **407.02** ● Glial growth inhibitors, axonal sprouting and activity dependent circuits in stroke recovery. S. CARMICHAEL. *David Geffen Sch. of Med. at UCLA.*
- 2:10 **407.03** Making the most of spared circuitry: rapid rearrangements in cortical circuit function following stroke. T. H. MURPHY. *Univ. British Columbia.*
- 2:45 **407.04** Activity-dependent stimulation as a therapeutic tool for recovery of sensorimotor function after brain injury. R. J. NUDO. *Univ. Kansas Med. Ctr.*
- 3:20 **407.05** Modulation of neural structures underlying motor function after stroke. L. G. COHEN. *NINDS, NIH.*
- 3:55 **407.06** Closing Remarks.

SYMPOSIUM Ernest N. Morial Convention Center

406. Promoting Oligodendrocyte Differentiation and Myelin Regeneration — CME

Mon. 1:30 PM - 4:00 PM — La Nouvelle A

Chair: W. DENG

Co-Chair: M. S. RAO

Defective development of oligodendrocytes, myelin-forming glial cells in the CNS, underlies many inherited and acquired dys- and de-myelinating disorders, such as pediatric leukodystrophies, periventricular leukomalacia, cerebral palsy, multiple sclerosis, and spinal cord injury. We will discuss new frontiers on using endogenous stem cells, embryonic stem cells, and induced pluripotent stem cells for disease modeling, drug discovery, and oligodendrocyte regeneration and myelin repair.

- 1:30 **406.01** Introduction.
- 1:35 **406.02** Remyelination in the CNS: from biology to therapy. R. J. FRANKLIN. *Univ. Cambridge.*
- 2:10 **406.03** Human oligodendrocyte progenitor cells for myelin regeneration/repair. S. A. GOLDMAN. *Univ. Rochester.*
- 2:45 **406.04** Developing safe therapies from human pluripotent stem cells. M. S. RAO. *NIH.*
- 3:20 **406.05** Using human pluripotent stem cells to model oligodendrocyte development and disease. W. DENG. *Univ. California Davis.*
- 3:55 **406.06** Closing Remarks.

SYMPOSIUM Ernest N. Morial Convention Center

407. ● Hebb Recovers From a Stroke: Activity-Dependent Plasticity, Circuit Reorganization, and Neural Repair in Cortex After Focal Ischemia — CME

Mon. 1:30 PM - 4:00 PM — La Nouvelle C

Chair: S. CARMICHAEL

Stroke induces the formation of new connections and changes in cortical maps in humans and experimental models of stroke in processes associated with functional recovery. Recent

MINISYMPOSIUM Ernest N. Morial Convention Center

408. The Human Subthalamic Nucleus in Health and Disease: Insights from Translational Neuroscience — CME

Mon. 1:30 PM - 4:00 PM — New Orleans Theater A

Chair: B. U. FORSTMANN

Co-Chair: B. DRAGANSKI

The subthalamic nucleus (STN) is a small but vitally important structure in the basal ganglia. Because of its central role in motor control, the STN is the target of deep-brain stimulation to alleviate severe motor symptoms in patients with Parkinson's disease. In this minisymposium we seek to demonstrate how translational neuroscience provides anatomical, functional, neurocomputational, and clinical perspectives on the complex way in which the STN controls human behavior in health and disease.

- 1:30 **408.01** Introduction.
- 1:35 **408.02** Computational models of subthalamic nucleus in health and Parkinson's disease. R. BOGACZ. *Univ. of Bristol.*
- 1:55 **408.03** *In* and *ex vivo* mapping of the STN using ultra-high resolution MRI. B. FORSTMANN. *Univ. of Amsterdam.*
- 2:15 **408.04** Quantification of tissue properties of the subthalamic nucleus in healthy ageing and Parkinson's disease. B. DRAGANSKI. *Univ. de Lausanne.*
- 2:35 **408.05** Functional connectivity of the human subthalamic nucleus *in vivo*. C. LAMBERT. *St. George's Univ. of London.*
- 2:55 **408.06** Role of fronto-STN circuits in behavioral stopping and switching. A. ARON. *UCSD.*
- 3:15 **408.07** High frequency oscillations (>200 Hz) in the human subthalamic nucleus in Parkinson's disease. A. SCHNITZLER. *Univ. of Duesseldorf.*
- 3:35 **408.08** Closing Remarks.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

MINISYMPOSIUM Ernest N. Morial Convention Center**409. ● Braking Dopamine Systems: A New GABA Master Structure for Mesolimbic and Nigrostriatal Functions — CME**

Mon. 1:30 PM - 4:00 PM — New Orleans Theater C

Chair: M. BARROT

The tail of the ventral tegmental area (tVTA) or rostromedial tegmental nucleus (RMTg) is a recently described brain region which is a major inhibitory control center for dopaminergic systems. This session highlights the functional impact of tVTA/RMTg, illustrating its neuroanatomical connection with mesolimbic and nigrostriatal pathways, the control it exerts on them and on the physiological response to drugs of abuse, and the behavioral influence on reward prediction and inhibition of action.

1:30 **409.01** Introduction.1:35 **409.02** Ultrastructural analyses of tVTA/RMTg projections to the Ventral Tegmental Area and Substantia Nigra in the Rat. S. R. SESACK. *Univ. of Pittsburgh.*1:55 **409.03** Modulation of dopamine neuron activity by afferents: Implications in reward and aversion. F. GEORGES. *CNRS, Univ. Victor Segalen.*2:15 **409.04** The RMTg is a key structure in endocannabinoid-dependent regulation of dopamine neurons: role in the mechanisms of drug addiction. M. PISTIS. *Univ. of Cagliari.*2:35 **409.05** Neural circuit around the RMTg mediating reward prediction error signals in primates. S. HONG. *NIH.*2:55 **409.06** Action and inhibition, pain and pleasure: the opposing poles of RMTg function. T. JHOU. *Med. Univ. of South Carolina.*3:15 **409.07** tVTA control over the mesolimbic and nigrostriatal systems. M. BARROT. *CNRS.*3:35 **409.08** Closing Remarks.**MINISYMPOSIUM** Ernest N. Morial Convention Center**410. Inhibition of Fear by Learned Safety Signals — CME**

Mon. 1:30 PM - 4:00 PM — 345

Chair: J. P. CHRISTIANSON

Safety signals are learned cues that predict the non-occurrence of an aversive event and are potent inhibitors of fear. Investigations of safety signal learning have increased over the last few years due in part to the finding that traumatized persons fail to utilize safety cues to inhibit fear. The goal of this minisymposium will be to present recent advances relating to the neural and behavioral mechanisms of safety learning and expression in rodents, non-human primates and humans.

1:30 **410.01** Introduction.1:35 **410.02** Impaired safety signal learning in PTSD. T. JOVANOVIĆ. *Emory Univ. Sch. of Med.*1:55 **410.03** Non-human primate models of safety signal learning. A. M. KAZAMA. *Yerkes Natl. Primate Res. Ctr.*2:15 **410.04** The relieving properties of a safety signal differ from the rewarding properties of an appetitive stimulus. A. B. P. FERNANDO. *Univ. of Cambridge.*2:35 **410.05** Insular cortex plasticity is required for safety signal learning. J. CHRISTIANSON. *Univ. of Colorado.*2:55 **410.06** Neurons in the amygdala are responsive to safety cues. S. SANGHA. *Univ. of California San Francisco.*3:15 **410.07** Changes in amygdala synapse structure with fear and safety learning. L. OSTROFF. *New York Univ.*3:35 **410.08** Closing Remarks.**ALBERT AND ELLEN GRASS LECTURE** Ernest N. Morial Convention Center**411. The Collective Wisdom of Neurons — CME**

Mon. 3:15 PM - 4:25 PM — Hall D

Speaker: L. ABBOTT, *Columbia Univ.**Support contributed by The Grass Foundation*

Much understanding of how neurons encode and process information is based on the response-tuning properties of individual neurons. However, robust computation can occur at the population level even when the selectivities of individual neurons are not easy to characterize or interpret. This lecture reviews methods for analyzing population activity in such cases and shows that circuits appearing disordered at the single-neuron level can provide highly flexible and useful functionality at the population level.

PRESIDENTIAL SPECIAL LECTURE Ernest N. Morial Convention Center**412. Circuit Tuning During Developmental Critical Periods — CME**

Mon. 5:15 PM - 6:25 PM — Hall D

Speaker: C. SHATZ, *Stanford Univ.**Support contributed by Pfizer, Inc.*

Adult circuits emerge during periods of activity-dependent synapse remodeling. Activity regulates neuronal genes including MHC Class I. In mice lacking certain MHC I genes synapse regression in the visual system fails and ocular dominance plasticity is enhanced. Mice lacking the MHC I receptor PirB have similar phenotypes. Thus molecules acting in immunity may also limit experience-driven change at neuronal synapses. Manipulating them could enhance recovery from injury and lead to treatments for schizophrenia or autism.

NANOSYMPOSIUM**413. Signal Propagation****Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms**

Mon. 1:00 PM — Ernest N. Morial Convention Center, 391

1:00 **413.01 ●** Spatiotemporal property of sensory evoked population activity in cortex. J. WU*; W. XU; X. HUANG; K. TAKAGAKI; X. GAO; J. LIANG. *Georgetown Univ.*1:15 **413.02** Spiral waves dynamics in primary visual cortex of the anesthetized primate. D. B. OMER*; N. K. LOGOTHETIS. *Max Planck Inst. For Biol. Cybernetics.*1:30 **413.03** Beta oscillations propagate as traveling waves in the macaque prefrontal cortex. F. PANAGIOTAROPOULOS*; M. BESSERVE; N. LOGOTHETIS. *Max Planck Inst.*

- 1:45 **413.04** Wave propagation, spiking dynamics, and behavioral state in motor cortex. K. BROWN*; K. TAKAHASHI; N. G. HATSOPOULOS. *Hatsopoulos Lab., Univ. of Chicago.*
- 2:00 **413.05** ● A network of subpopulation of neurons in primary motor cortex and beta oscillation waves exhibit similar spatiotemporal patterns. K. TAKAHASHI*; S. KIM; K. A. BROWN; L. PESCE; T. P. COLEMAN; N. G. HATSOPOULOS. *Univ. of Chicago, Univ. of California, San Diego, Univ. of Chicago.*
- 2:15 **413.06** Identification of spatio-temporal patterns in the hippocampal theta rhythm. G. AGARWAL*; G. BUZSAKI; F. T. SOMMER. *UC Berkeley, New York Univ.*
- 2:30 **413.07** Beyond single neuron responses: Networks capture ensemble coding properties and re-organization in cortex. S. ELDAWLATLY; A. ELERYAN; A. MOHEBI; M. AGHAGOLZADEH; K. G. OWEISS*. *Ain Shams Univ., Michigan State Univ., Michigan State Univ., Michigan State.*
- 2:45 **413.08** Multiple integration scales for LFPs in macaque V4. P. J. MINEAULT*; T. P. ZANOS; C. C. PACK. *Montreal Neurolog. Inst.*
- 3:00 **413.09** Saccades induce LFP waves and alter single-neuron Functional Connectivity in macaque visual cortex. T. P. ZANOS*; P. J. MINEAULT; J. A. MONTEON; D. GUITTON; C. C. PACK. *Montreal Neurolog. Institute, McGill Univ.*
- 3:15 **413.10** The relation between local field potentials and single units across a microelectrode array implanted in macaque dorsolateral prefrontal cortex. A. J. SACHS*; K. J. MILLER; F. PIEPER; M. LEAVITT; J. MARTINEZ-TRUJILLO. *Stanford Univ. Med. Center, Dept. of Neurosurg., Stanford Univ., Univ. Med. Ctr. Hamburg-Eppendorf, McGill Univ.*
- 3:30 **413.11** The dynamics of network activity in the auditory cortex of awake-behaving mice. M. J. MCGINLEY*; D. A. MCCORMICK. *Yale Univ.*
- 3:45 **413.12** Representation of high frequency stimuli by internally generated gamma oscillations in the somatosensory cortex of the rat. T. BESSAIH*; M. J. HIGLEY; D. CONTRERAS. *Univ. Pierre Et Marie Curie, Yale school of medicine, Univ. of Pennsylvania, Sch. of Med.*
- 4:00 **413.13** Identification of neural functional connectivity using sparse generalized Volterra models. D. SONG; H. WANG; V. Z. MARMARELIS; T. W. BERGER*. *USC, Colorado State Univ.*
- 4:15 **413.14** Sequences and the emergence of continuous attractor networks. V. ITS KOV*; C. CURTO; A. VELIZ-CUBA. *Univ. of Nebraska.*
- 1:30 **414.03** Randomization of submaximal glutamate stimulus to interpret astrocyte effect on calcium dynamics. *A. BRIENS, JR¹, F. CASSE¹, I. BARDOU¹, L. DANGLLOT², A. MONTAGNE¹, M. SCHWALM^{M1}, J. PARCQ¹, T. GALLI², D. VIVIEN¹, F. DOCAGNE¹; ¹INSERM U919 SP2U, CAEN, France; ²INSERM U950, Paris, France
- 1:45 **414.04** Astrocytes regulate cross-talk between tPA and glutamatergic signalling. A. BRIENS*, JR; F. CASSE¹; I. BARDOU; L. DANGLLOT; A. MONTAGNE; M. SCHWALM; J. PARCQ; T. GALLI; D. VIVIEN; F. DOCAGNE. *INSERM U919 SP2U, INSERM U950.*
- 2:00 **414.05** CPEB1-mediated local protein synthesis regulates glioblastoma cell migration. D. M. KOCHANNEK*; D. G. WELLS. *Yale Univ.*
- 2:15 **414.06** Human embryonic stem cell-derived neurons and astrocytes as an experimental model for acute brain injury: investigating astrocyte and drug-mediated neuroprotection in oxidative stress and excitotoxicity. K. GUPTA*; R. PATANI; P. BAXTER; A. SERIO; D. STORY; G. HARDINGHAM; S. CHANDRAN. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Edinburgh, Univ. of Edinburgh.*
- 2:30 **414.07** Mobility of late endosomes/lysosomes in interferon- γ activated astrocytes. N. VARDJAN*; M. GABRIJEL; M. POTOKAR; U. ŠVAJGER; M. KREFT; M. JERAS; M. PEKNY; R. ZOREC. *Fac. of Medicine, Univ. of Ljubljana, Celica Biomed. Ctr., Blood Transfusion Ctr. of Slovenia, Fac. of Medicine, Univ. of Ljubljana, Biotechnical Faculty, Univ. of Ljubljana, Inst. of Neurosci. and Physiology, Sahlgrenska Acad. at Univ. of Gothenburg.*
- 2:45 **414.08** Astrocytes mediate synapse elimination through MEGF10 and MERTK phagocytic pathways. W. CHUNG*; G. X. WANG; S. J. SMITH; B. A. BARRES. *Stanford Univ., Stanford Univ.*
- 3:00 **414.09** Palmitate-activated inflammasome in primary rat astrocytes mediates neurotoxicity. L. LIU*; C. CHAN. *Michigan State Univ.*
- 3:15 **414.10** Distribution and morphology of astroglial cells in the immature human brain. V. G. SUPRAMANIAM*; R. VONTELL; P. PATKEE; J. WYATT-ASHMEAD; H. HAGBERG; M. RUTHERFORD. *Perinatal Imaging Group, Ctr. For the Developing Brain, MRC, Robert Steiner MR Unit, Imperial Col. London, Hammersmith Hosp., Wigglesworth Perinatal Pathology Services.*
- 3:30 **414.11** Primary cilia in astrocytes. S. BHATTARAIM; M. CORONEL; H. D. SCHWARK*; J. L. FUCHS. *Univ. of North Texas.*
- 3:45 **414.12** Different effects of Amyloid- β on entorhinal cortex and hippocampal astrocytes in culture. A. A. GROLLA; A. A. GENAZZANI; P. L. CANONICO*; J. J. RODRIGUEZ; J. A. SIM; A. VERKHRATSKY. *Universita' del Piemonte Orientale, Univ. Piemonte Orientale, IKERBASQUE Basque Fndn. for Sci., FLS, Univ. of Manchester.*
- 4:00 **414.13** The role of astrocytic monocarboxylate transporter 4 (MCT4) up-regulation in central nervous system. L. LIANG*; Y. LI; E. YANG; B. HOOVER; R. SATTLER; J. D. ROTHSTEIN. *Johns Hopkins Univ., The Jackson Lab.*

NANOSYMPOSIUM

414. Glia-Neuron Interactions: Astrocytes I

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, 393

- 1:00 **414.01** Exocytosis of ATP from cortical astrocytes: Novel pathway of glia-neuron interaction. Y. PANKRATOV*; O. PALYGIN; U. LALO. *Univ. of Warwick, Univ. of Manchester.*
- 1:15 **414.02** Neuromodulators and metabolic inhibitors evoke distinct patterns of cytosolic calcium rises in cultured human fetal brain neurons versus astrocytes. K. BALLANYI*; W. FU; A. RUANGKITTISAKUL; J. H. JHAMANDAS; G. B. BAKER. *Univ. Alberta, Univ. Alberta, Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

NANOSYMPOSIUM

415. Alzheimer's Disease: Neuroinflammation II

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, 395

- 1:00 **415.01** Rig1 signaling is involved in the pathogenesis of Alzheimer's disease. J. P. DE RIVERO VACCARI*; F. BRAND, III; C. SEDAGHAT; D. MASH; W. DIETRICH; R. W. KEANE. *Univ. Miami Sch. Med., Univ. of Miami.*
- 1:15 **415.02** Cell- and stage-specific impact of TNF- α receptor signaling in Alzheimer's disease. S. L. MONTGOMERY*; M. A. MASTRANGELO; W. C. NARROW; T. W. WRIGHT; M. K. O'BANION; W. J. BOWERS. *Univ. of Rochester, Univ. of Rochester, Univ. of Rochester.*
- 1:30 **415.03** Common micro RNAs (miRNAs) target complement factor H (CFH) regulation in Alzheimer's disease (AD) and in age-related macular degeneration (AMD). W. J. LUKIW*; S. BHATTACHARJEE; P. DUA; P. N. ALEXANDROV. *Louisiana State Univ. Sch. Med., Louisiana State Univ., Russian Acad. of Med. Sci.*
- 1:45 **415.04** A shift in microglial β -amyloid binding in Alzheimer's disease is associated with cerebral amyloid angiopathy. M. K. ZABEL*; M. SCHRAG; A. CROFTON; S. TUNG; H. V. VINTERS; P. BEAUFOND; A. DININNI; W. M. KIRSCH. *Loma Linda Univ., Loma Linda Univ., Yale Univ., UCLA.*
- 2:00 **415.05** Loss of tau rescues inflammation-mediated neuropathology. K. BHASKAR*; N. MAPHIS; G. XU; O. N. KOKIKO-COCHRAN; R. M. RANSOHOFF; B. T. LAMB. *Cleveland Clin. Fndtn, Case Western Reserve Univ.*
- 2:15 **415.06** Amyloid-beta peptide as a regulator of pineal gland melatonin production. E. CECON*; P. A. C. M. FERNANDES; E. TAMURA; R. P. MARKUS. *Univ. of Sao Paulo.*
- 2:30 **415.07** Incidence of plugged capillaries in Alzheimer's disease mouse models decreases with age. N. NISHIMURA*; C. KERSBERGEN; I. IVASYK; J. C. CRUZ; J. ZHOU; J. D. BEVERLY; E. SLACK; G. OTTE; P. KARLSSON; T. P. SANTISAKULTARM; C. IADECOLA; C. B. SCHAFFER. *Cornell Univ., Weill Med. Col. of Cornell Univ.*
- 2:45 **415.08** A dysregulated endocannabinoid-eicosanoid network supports pathogenesis in a mouse model of Alzheimer's disease. J. R. PIRO*; D. I. BENJAMIN; J. M. DUERR; Y. PI; C. GONZALES; K. M. WOOD; J. W. SCHWARTZ; D. K. NOMURA; T. A. SAMAD. *Pfizer Inc, Univ. of California Berkeley.*
- 3:00 **415.09** Soluble Toll like receptors as tools to investigate innate immune system induced A β clearance. P. CHAKRABARTY*; P. CRUZ; L. TIANBAI; A. ROSARIO; T. GOLDE. *Univ. of Florida.*
- 3:15 **415.10** ● ▲ Autophagy changes in Alzheimer's disease according to intensity of inflammation. A. FRANCOIS*; F. TERRO; T. JANET; A. RIOUX BILAN; D. CHASSAING; M. PACCALIN; G. PAGE. *EA3808 Mol. Targets and Therapeut. of Alzheimer's Dis., Univ. Limoges, Lab. of Histology and molecular Biology, faculty of Medicine, Limoges, F-87025, France, Service d'histologie et de cytogénétique, Hôpital de la Mère et de l'Enfant, Limoges, F-87025, France, CHU Poitiers, Service de Gériatrie, CMRR, CIC-P 802, Poitiers, F-86021, France.*
- 3:30 **415.11** Saturated Free fatty acid consumption may increase the risk for Alzheimer's disease. O. GHRIBI*. *UND Med. Sch.*

- 3:45 **415.12** An anti-diabetes agent protects the mouse brain from defective insulin signaling caused by Alzheimer's disease-associated A β oligomers. T. R. BOMFIM*; L. FORNY-GERMANO; L. B. SATHLER; J. BRITO-MOREIRA; J. HOUZEL; H. DECKER; M. A. SILVERMAN; H. KAZI; H. M. MELO; P. L. MCCLEAN; C. HOLSCHER; S. E. ARNOLD; K. TALBOT; W. L. KLEIN; D. P. MUNOZ; S. T. FERREIRA; F. G. DE FELICE. *Federal Univ. of Rio De Janeiro, Simon Fraser Univ., Univ. of Pennsylvania, Ulster Univ., Northwestern Univ., Queen's Univ.*
- 4:00 **415.13** Influence of brain-specific overproduction of the proinflammatory complement activation fragment C5a on behavior and inflammation in mouse models of Alzheimer's disease. T. A. COLE*; S. CHU; A. TRAN; A. ROCCHI; R. R. AGER; M. I. FONSECA; S. R. BARNUM; A. J. TENNER. *U of C, Irvine, U of C, Irvine, Univ. of Siena, UAB.*
- 4:15 **415.14** Neuroinflammatory phenotype as a source of heterogeneity in early Alzheimer's disease. T. L. SUDDUTH; P. T. NELSON; F. A. SCHMITT; D. M. WILCOCK*. *Univ. of Kentucky.*

NANOSYMPOSIUM

416. APP/A β : Animal Models II**Theme C: Disorders of the Nervous System**

Mon. 1:00 PM – Ernest N. Morial Convention Center, 262

- 1:00 **416.01** Strengths and weaknesses in behavioral phenotyping of genetically modified mice. D. P. WOLFER*; H. LIPP. *Univ. Zurich-Irchel.*
- 1:15 **416.02** Modeling behaviors relevant to autism and other neuropsychiatric disorders in mice. V. J. BOLIVAR*; M. N. SOLANKI; J. LANGAN; K. MANLEY. *Wadsworth Ctr., Sch. of Publ. Health, Univ. at Albany, State Univ. of New York.*
- 1:30 **416.03** ● Transgenic APP expression during postnatal development causes persistent locomotor hyperactivity and EEG abnormalities in the adult. J. L. JANKOWSKY*; S. P. RODGERS; H. A. BORN; P. DAS. *Baylor Col. of Med., Mayo Clin. Florida.*
- 1:45 **416.04** Effects of acute inhibition of APP/A β production in adulthood are modulated by APP overexpression during development. A. V. SAVONENKO*; T. MELNIKOVA; S. FROMHOLT; H. KIM; D. LEE; E. CHO; D. BORCHELT. *Johns Hopkins Univ., McKnight Brain Institute, Univ. of Florida.*
- 2:00 **416.05** Rapid reversal of cognitive impairment by suppression of mutant APP expression in a regulated transgenic model of Alzheimer-amyloidosis. D. R. BORCHELT*; T. MELNIKOVA; S. FROMHOLT; H. KIM; D. LEE; G. XU; K. FELSENSTEIN; A. SAVONENKO. *Univ. of Florida, Johns Hopkins Univ. Sch. of Med.*
- 2:15 **416.06** Amyloid beta does not cause cognitive impairment in mouse models. C. G. JANUS*; P. CHAKRABARTY; A. MARCH; T. GOLDE; J. KIM. *Univ. of Florida, Univ. of Florida, Dept. of Neurology, Washington Univ. Sch. of Med.*
- 2:30 **416.07** A single locus knockin mouse model of AD. T. C. SAIDO*; T. SAITO. *RIKEN Brain Sci. Inst., RIKEN Brain Sci. Inst.*
- 2:45 **416.08** ● Increasing O-GlcNAc-ylation of brain proteins counteracts negative effects of amyloid and Tau. F. VAN LEUVEN*; P. BORGHGRAEF; H. DEVIJVER; B. LECHAT; H. GIJSEN; C. MENUET; G. HILAIRE; D. MOECHARS. *Exptl. Genet. Group - LEGTEGG, Janssen-R&D, MP3-Respiration.*

- 3:00 **416.09** ● Modulation of abeta deposition by cell-specific mechanisms. K. VEERARAGHAVALU*; S. S. SISODIA. *Univ. Chicago*.
- 3:15 **416.10** Comparative analysis of neuronal morphology of single and combined APP/APLP knockout mice reveals a reduced spine density in APP-KO mice that is rescued by secreted APPs α . U. MULLER*; M. HICK; J. GOBBERT; M. MARTA ZAGREBELSKY; M. GRUBER; D. BECKER; C. ALTMANN; A. VLACHOS; M. KORTE; T. DELLER; S. WEYER. *Heidelberg Univ., TU Braunschweig, Goethe-University*.

NANOSYMPOSIUM

417. Demyelinating Disorders: Molecular and Cellular Mechanisms I

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, 277

- 1:00 **417.01** The RNA binding protein hnRNP A1 contributes to mechanisms of neurodegeneration in immune mediated neurological disease. J. N. DOUGLAS; L. GARDNER*; S. LEE; Y. SHIN; C. J. GROOVER; S. MAINALI; M. C. LEVIN. *Univ. of Tennessee Hlth. Sci. Ctr., VA Med. Ctr., Univ. of Tennessee Hlth. Sci. Ctr.*
- 1:15 **417.02** TGF β signaling drives oligodendrocyte progenitor cells myelination and remyelination. J. PALAZUELOS*; M. KLINGENER; A. AGUIRRE. *Stony Brook University, SUNY*.
- 1:30 **417.03** ● PI3K γ deletion or inhibition enhances axon myelination and alleviates symptoms of experimental autoimmune encephalomyelitis in mice. H. LI*; H. WANG; S. ROVINSKY; S. LI. *UT Southwestern Med. Cneter*.
- 1:45 **417.04** The timing of oligodendrocyte killing determines the potential of myelin repair in postnatal brain. A. SHABBIR; W. B. MACKLIN; M. GHANDOUR*. *UMR 7237 CNRS/Université de Strasbourg, Univ. of Colorado*.
- 2:00 **417.05** Hormone-like activity of kallikrein 6 regulates oligodendrocyte differentiation and white matter degeneration. J. E. BURDA*; M. RADULOVIC; I. A. SCARISBRICK. *Mayo Clin., Mayo Clin.*
- 2:15 **417.06** Interferon- γ activates anti-apoptotic signaling pathway to protect oligodendrocytes from cell death. D. C. TANNER*; M. MAYER-PROSCHEL. *Univ. Rochester*.
- 2:30 **417.07** Effect of microglial activity upon neuronal pathology following targeted apoptosis of myelinating glia. T. D. MERSON*; Y. L. XING; J. S. STRATTON; S. W. NG; T. J. KILPATRICK. *Florey Neurosci. Inst., Univ. of Melbourne*.
- 2:45 **417.08** Coculture of NGF-primed PC12 cells and immortalized Schwann cells as a valuable tool for the study of myelination and demyelination. K. SANGO*; H. YANAGISAWA; S. TAKAKU; E. KAWAKAMI; M. TSUKAMOTO; K. UTSUNOMIYA; K. WATABE. *Tokyo Met Inst. Med. Sci., Jikei Univ. Sch. of Med.*
- 3:00 **417.09** Regulation of oligodendrocyte precursor cells differentiation by the P2Y-like GPR17 receptor. M. P. ABBRACCHIO*; M. FUMAGALLI; D. LECCA; E. BONFANTI; C. PARRAVICINI; S. DANIELE; L. TRINCAVELLI; C. MARTINI. *Univ. Milano, Univ. of Pisa*.
- 3:15 **417.10** The peripheral neuropathy-linked phosphoinositide 3-phosphatases Mtmr2 and Mtmr13 localize to a Schwann cell endomembrane compartment distinct from the early or late endosome. F. L. ROBINSON*; A. M. LOGAN; A. A. NG; E. J. SCHMIDT. *Oregon Hlth. & Sci. Univ.*

- 3:30 **417.11** Expression of tumor suppressor gene adenomatous polyposis coli (APC) and its role in oligodendroglial lineage cells. F. GUO*; J. LANG; Y. MAEDA; D. PLEASURE. *UC Davis Sch. Med., the Inst. for Pediatric Regenerative Medicine, Shriners Hosp. for Children, Northern CA*.

NANOSYMPOSIUM

418. Vulnerability to Drug Self-Administration and Addiction

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, 273

- 1:00 **418.01** Cognitive control dysfunction and abnormal frontal cortex activation in stimulant drug users and their biological siblings. D. G. SMITH*; P. S. JONES; E. T. BULLMORE; T. W. ROBBINS; K. D. ERSCHKE. *Univ. of Cambridge, Univ. of Cambridge, GlaxoSmithKline*.
- 1:15 **418.02** A translational analysis of impulsivity and drug abuse vulnerability. T. H. KELLY; J. A. LILE; D. C. LEE; Y. JIANG*; M. T. BARDO. *Univ. of Kentucky Col. of Med., Univ. of Kentucky Arts & Sci.*
- 1:30 **418.03** High trait impulsivity predicts a slower transition to dorsolateral striatal dopamine control of cocaine seeking behavior. J. E. MURRAY*; R. DILLEEN; Y. PELLOUX; D. ECONOMIDOU; E. R. JORDAN; J. W. DALLEY; D. BELIN; B. J. EVERITT. *Univ. of Cambridge, Univ. of Aix-Marseille, Univ. of Cambridge, Team Psychobiology of Compulsive Disorders, INSERM*.
- 1:45 **418.04** Behavioural traits predicting alcohol intake in rats: Anxiety, novelty-seeking, and cognitive flexibility. M. C. OLMSTEAD*; M. K. MAHONEY; S. J. HAYTON. *Queens Univ., Stanford Univ.*
- 2:00 **418.05** Influence of environmental stimulation on behavioural traits of vulnerability to, and development of, addiction-like behaviour for cocaine in the rat. N. VANHILLE*; D. BELIN. *INSERM Avenir Team Psychobiology of Compulsive Disorders*.
- 2:15 **418.06** The effects of differential rearing on individual differences in response to novelty and amphetamine. M. CAIN*; D. A. SAUCIER; M. J. ECK; M. JAGOSZ. *Kansas State Univ.*
- 2:30 **418.07** Maternal experience protects female rats against drug abuse liability. J. A. CUMMINGS*; J. B. BECKER. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan*.
- 2:45 **418.08** Rats selectively bred for locomotor response to novelty differ in addictive behavior and in their gene expression profile in the nucleus accumbens. S. B. FLAGEL*; M. WASELUS; S. SEWANI; R. KELLY; S. J. WATSON; R. THOMPSON; H. AKIL. *Univ. of Michigan, Univ. of Michigan*.
- 3:00 **418.09** Oxytocin decreased motivation for methamphetamine in female rats. C. M. REICHEL*; B. M. COX; A. B. YOUNG; R. E. SEE. *Med. Univ. of South Carolina*.
- 3:15 **418.10** Trait selection for high vs. low nondrug reward seeking predicts cocaine seeking but reduced aversive effects and treatment success in rats. M. E. CARROLL*; N. A. HOLTZ; P. S. REGIER. *Univ. Minnesota*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:30 **418.11** Individual differences in cue-induced cocaine relapse is associated with rapid synaptic potentiation. C. D. GIPSON*; Y. M. KUPCHIK; H. SHEN; P. W. KALIVAS. *Med. Univ. of South Carolina*.
- 3:45 **418.12** Enhancement of addictive behaviors and neurochemical markers associated with drug addiction in two distinct animal models of depression. N. ZILKHA*; A. ZANGEN. *Weizmann Inst. of Sci., Ben-Gurion Univ. of the Negev*.
- 4:00 **418.13** Sex differences in behavioral and neural cross-sensitization and escalated cocaine taking as a result of social defeat stress in rats. E. N. HOLLY*; A. SHIMAMOTO; J. F. DEBOLD; K. A. MICZEK. *Tufts Univ.*

NANOSYMPOSIUM

419. Eye movements: A Window to the Soul of Circuits

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, 383

- 1:00 **419.01** Visual and motor coding in Frontal Eye Fields during head-unrestrained gaze shifts. A. SAJAD*; M. SADEH; X. YAN; G. P. KEITH; H. WANG; J. D. CRAWFORD. *Ctr. For Vision Research, York Univ.*
- 1:15 **419.02** The dynamics of spatial and feature-based attention during saccade preparation. A. L. WHITE*; M. ROLFS; M. CARRASCO. *New York Univ., New York Univ.*
- 1:30 **419.03** Comparing the human and macaque fronto-striatal oculomotor network. S. F. NEGGERS*; M. S. YOUNG; B. B. ZANDBELT; J. D. SCHALL. *Rudolf Magnus Inst. of Neurosci., Vanderbilt Vision Res. Center, Ctr. for Integrative & Cognitive Neurosci.*
- 1:45 **419.04** Resting state functional connectivity of the frontal and parietal lobe in new world and old world primates. A. V. MAIER*; L. CHEN; A. MISHRA; F. WANG; D. C. COLVIN; A. T. NEWTON; M. YOUNG; J. C. GORE; J. D. SCHALL. *Vanderbilt Univ., Ctr. for Integrative and Cognitive Neurosci., Vanderbilt Vision Res. Ctr., Vanderbilt Univ.*
- 2:00 **419.05** Homologous functional connectivity architecture of the monkey and human saccade-related networks. R. HUTCHISON*; J. P. GALLIVAN; J. C. CULHAM; J. S. GATI; R. S. MENON; S. EVERLING. *Western Univ.*
- 2:15 **419.06** Frontal eye field may be “read out” differently for auditory vs. visual saccades. V. CARUSO*; D. PAGES; J. M. GROH. *Duke University, Ctr. For Cognitive Neurosci., Duke University, Ctr. For Cognitive Neuroscience, Dept. of Psychology and Neuroscience, Dept. of Neurobiology, Duke Inst. for Brain Sci., Durham, NC.*
- 2:30 **419.07** “Where’s Waldo” and the development of small-saccades / microsaccades from toddling to retiring. J. DANIELS; T. COOPER; S. HITZEMAN; N. L. PORT*; S. BECKERMAN. *Indiana Univ., Illinois Col. of Optometry.*
- 2:45 **419.08** Visual fixation is visual exploration on a miniature scale. J. OTERO-MILLAN*; S. L. MACKNIK; R. E. LANGSTON; S. MARTINEZ-CONDE. *Barrow Neurol Inst., Univ. of Vigo, Barrow Neurolog. Inst., Univ. of Arizona.*
- 3:00 **419.09** Differences in size-increasing and size-decreasing long-term saccade adaptation in monkey. A. L. MUELLER*; A. DAVIS; F. ROBINSON. *Univ. of Washington.*
- 3:15 **419.10** Visual and Motor coding in the primate Superior Colliculus during head-unrestrained gaze shifts. M. SADEH*; A. SAJAD; H. WANG; G. P. KEITH; X. YAN; J. D. CRAWFORD. *Ctr. for Vision Research, York Univ.*

- 3:30 **419.11** Modeling sensory uncertainty reproduces saccade-pursuit synergies. P. LEFEVRE*; S. COPPE; J. ORBAN DE XIVRY; G. BLOHM. *ICTEAM and Inst. of Neuroscience, Univ. catholique de Louvain, Ctr. for Neurosci. Studies, Queen’s Univ., Canadian Action and Perception Network (CAPnet).*
- 3:45 **419.12** Hypometric saccades to targets moving in circular trajectories: Blurring the distinction between reflexive and voluntary movement. R. AZADI; A. O. HOLCOMBE; J. A. EDELMAN*. *CUNY Grad. Ctr., The Univ. of Sydney, City Col. of New York.*
- 4:00 **419.13** Electrophysiological error signals drive rapid sensorimotor learning. D. BELYUSAR*; H. FREY; A. C. SNYDER; M. HARWOOD; J. J. FOXE. *Albert Einstein Col. of Med., Univ. of Pittsburgh, City Col. of New York.*
- 4:15 **419.14** ▲ Structural change in grey matter and white matter in Express saccade makers of Chinese population. X. JIANG; Y. MENG; J. ZHONG; L. QIU; S. LI; P. KNOX; Q. GONG; X. HUANG*. *Huaxi Magnetic Resonance Res. Ctr., Univ. of Liverpool.*

NANOSYMPOSIUM

420. Hedonic/Reward Circuits and Feeding Mechanisms I

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, 388

- 1:00 **420.01** ▲ Anorexia depends on the AKAP/PKA complex under the influence of serotonin 4 receptors in the nucleus accumbens. M. PRATLONG*; L. LAURENT; P. BOUSSADIA; V. COMPAN. *IGF, UNIVERSITE DE NIMES, CONTRALCO.*
- 1:15 **420.02** ● Divergent circuitry underlying food reward and intake effects of ghrelin: dopaminergic VTA-accumbens projection mediates ghrelin’s effect on food reward but not food intake. K. P. SKIBICKA*; R. SHIRAZI; M. ALVAREZ-CRESPO; S. L. DICKSON. *The Sahlgrenska Acad. At Univ. of Gothenburg/ Inst. of Neurosci. A, Sahlgrenska Academy, Univ. of Gothenburg, Inst. of Neurosci.*
- 1:30 **420.03** Sensing satiety in the fruit fly brain. A. POOL*; P. KVELLO; K. MANN; M. D. GORDON; S. K. CHEUNG; K. SCOTT. *Univ. of California, Berkeley, Univ. of British Columbia.*
- 1:45 **420.04** Expression of the MAP kinase protein in brain regions of rats exposed to cafeteria diet. E. MURILLO-RODRIGUEZ*; D. SÁNCHEZ-LÓPEZ; A. TEJEDA-PADRÓN; A. SARRO-RAMÍREZ; L. BUENFIL-CANTO; T. ROSAS-DE-PAZ; E. PACHECO-PANTOJA. *Lab. Neurociencias Moleculares e Integrativas. Escuela de Medicina, Lab. Neurociencias Moleculares e Integrativas. Escuela de Medicina. Univ. Anáhuac Mayab, Escuela de Medicina. Univ. Anáhuac Mayab.*
- 2:00 **420.05** Dissection of the neural mechanism underlying the metabolic sensing of sugars in *Drosophila*. M. DUS*; G. S. B. SUH. *NYU Sch. of Medicine, Skirball Inst.*
- 2:15 **420.06** Obesity alters dopamine reward system: Importance of critical developmental periods and sex differences. J. CARLIN*; T. M. REYES. *Univ. of Pennsylvania.*
- 2:30 **420.07** The gut factor oleoylethanolamine restores dopaminergic function in high-fat fed mice. L. A. TELLEZ*; J. G. FERREIRA; X. REN; G. J. SCHWARTZ; I. E. DE ARAUJO. *The Jonh B Pierce Lab. & Yale Univ. Sch. of Med., Albert Einstein Col. of Medicine, Yeshiva Univ.*

- 2:45 **420.08** Palatable food and drugs of abuse: Similarity of effects on the brain. S. F. LEIBOWITZ*; O. KARATAYEV; J. R. BARSON; G. CHANG. *Rockefeller Univ.*
- 3:00 **420.09** Leptin regulates the reward value of sucrose through galanin-expressing leptin receptor neurons. A. LAQUE*; K. REZAIH-ZADEH; T. NGUYEN; S. GETTYS; K. BUI; C. J. RHODES; S. J. CHUA; B. RICHARDS; H. MÜNZBERG. *Pennington Biomed. Res. Ctr., Univ. of Chicago, Albert Einstein Col. of Med., Pennington Biomed. Res. Ctr.*

NANOSYMPOSIUM

421. Development of Numerical Cognition

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, 387

- 1:00 **421.01** Dynamic changes in brain response and connectivity associated with arithmetic fact learning in children. M. J. ROSENBERG-LEE*; E. ESCOVAR; C. TENISON; A. KHOUZAM; V. MENON. *Stanford Univ., Carnegie Mellon Univ.*
- 1:15 **421.02** Progressive and regressive developmental changes in the IPS for number symbols. E. M. HUBBARD*; B. D. MCCANDLISS. *Vanderbilt Univ.*
- 1:30 **421.03** Learning numbers without numbers: Transfer of learning across magnitude domains. R. PRATHER*. *Indiana Univ.*
- 1:45 **421.04** Parietal functional connectivity in numerical cognition. J. PARK*; D. PARK; T. POLK. *Duke Univ., Univ. of Texas at Dallas, Univ. of Michigan.*
- 2:00 **421.05** Understanding less than nothing: Children's neural responses to negative numbers shift across age and accuracy. M. GULLICK*; G. WOLFORD. *Dartmouth Col., Northwestern Univ.*
- 2:15 **421.06** Individual differences in preschoolers' numerical acuity modulate event-related potential ratio effects. M. PINHAS; D. J. PAULSEN; E. M. BRANNON*. *Duke Univ.*
- 2:30 **421.07** How individual differences in strategy use and development impact the neural circuitry underlying arithmetic skills: Evidence from customized arithmetic training. C. J. BATTISTA*; D. ANSARI; J. MORTON. *Univ. of Western Ontario.*
- 2:45 **421.08** Math training strengthens intrinsic connectivity of parietal cortex in children. D. D. JOLLES; M. ROSENBERG-LEE; S. ASHKENAZI; K. SUPEKAR; C. TENISON; X. DUAN; L. Q. UDDIN*; L. FUCHS; V. MENON. *Stanford Univ., Carnegie Mellon Univ., Vanderbilt Univ.*
- 3:00 **421.09** Training versus practice effects in brain function with reasoning instruction. A. T. MILLER SINGLEY; A. P. MACKEY; S. A. BUNGE*. *Univ. California, Berkeley, Univ. California, Berkeley.*

NANOSYMPOSIUM

422. Neural Circuitry Underlying Anxiety and Processing of Fear

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, 291

- 1:00 **422.01** Anticipatory anxiety enhances stimulus-driven actions. B. R. CORNWELL*; S. C. MUELLER; M. ERNST. *NIMH, Ghent Univ.*
- 1:15 **422.02** Fear memory consolidation: Spontaneous reactivation of experience-specific activation patterns within the human amygdala. E. J. HERMANS*; J. W. KANEN; A. TAMBINI; G. FERNÁNDEZ; L. DAVACHI; E. A. PHELPS. *New York Univ., Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr., New York Univ., Nathan Kline Inst.*
- 1:30 **422.03** The role of serotonin in the neurocircuitry of anxiety: Serotonergic inhibition of the dorsal medial prefrontal-amygdala 'aversive amplification' circuit? O. J. ROBINSON*; C. OVERSTREET; P. ALLEN; K. VYTAL; D. PINE; C. GRILLON. *NIMH.*
- 1:45 **422.04** Sustained anxiety alters amygdala-prefrontal coupling: A mechanism for cognitive disruption and adaptive defensive preparations. K. E. VYTAL*; C. OVERSTREET; O. ROBINSON; C. GRILLON. *NIMH.*
- 2:00 **422.05** Neural and genetic basis of exaggerated threat appraisal: Role of neuropeptide S receptor genotype and rostral dmPFC activity. A. THANELLOU*; K. YUEN; R. KALISCH. *Inst. for Systems Neurosci. - Hamburg Univ. Hosp. (UKE).*
- 2:15 **422.06** Individual differences in trait anxiety affect vigilance during unpredictable threat: Contribution of serotonin in the ventral prefrontal cortex. Y. MIKHEENKO*; K. BRAESICKE; J. XIA; H. F. CLARKE; A. C. ROBERTS. *Univ. of Cambridge, Univ. of Cambridge.*
- 2:30 **422.07** The dynamics of fMRI brain networks involved in induced relaxed state guided by EEG neurofeedback. S. KINREICH*; I. PODLIPSKY; N. INTRATOR; T. HENDLER. *Dept. of Psychology, Tel Aviv Univ., Functional Brain Center, Wohl Inst. for Advanced Imaging, Sch. of Computer Science, Tel Aviv Univ., Sackler Fac. of Medicine, Tel Aviv Univ., Tel Aviv Univ.*
- 2:45 **422.08** Knockout of fibroblast growth factor 2 increases anxiety and hypothalamic-pituitary-adrenal axis activation. N. SALMASO*; M. ELSAYED; M. E. MARAGNOLI; R. M. SAPOLSKY; M. L. SCHWARTZ; R. S. DUMAN; F. M. VACCARINO. *Yale Univ., Yale Univ., Stanford Univ., Yale Univ.*
- 3:00 **422.09** Fear conditioning modulates intrinsic excitability of lateral amygdala neurons. M. SEHGAL*; A. M. GIRGIS; J. R. MOYER, Jr. *Univ. of Wisconsin-Milwaukee, Univ. of Wisconsin-Milwaukee.*
- 3:15 **422.10** Uncertainty modulates anticipatory anterior insula activity in generalized anxiety disorder. D. W. GRUPE*; D. J. OATHES; D. M. MCFARLIN; J. B. NITSCHKE. *Univ. Wisconsin-Madison, Univ. Wisconsin-Madison, Univ. Wisconsin-Madison, Stanford Univ., Univ. Wisconsin-Madison.*
- 3:30 **422.11** Pavlovian conditioned approach to a reward cue predicts fear incubation. J. D. MORROW*; S. MAREN; T. E. ROBINSON. *Univ. of Michigan, Univ. of Michigan.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:45 **422.12** Neural mechanisms underlying contextual anxiety. R. P. ALVAREZ*; N. KIRLIC; M. MATLOCK. *Laureate Inst. For Brain Res., The University of Tulsa.*
- 4:00 **422.13** Olfactory capture in visuo-olfactory integration of subthreshold threat signals. W. LI*; L. NOVAK. *Univ. of Wisconsin-Madison.*
- 4:15 **422.14** Reduced recruitment of orbitofrontal cortex to human social chemosensory cues in social anxiety. W. ZHOU*; P. HOU; Y. ZHOU; D. CHEN. *Inst. of Psychology, Chinese Acad. of Sci., Univ. of Texas Med. Sch. in Houston, UT M. D. Anderson Cancer Ctr., Rice Univ.*

NANOSYMPOSIUM

423. MR Imaging Techniques

Theme G: Novel Methods and Technology Development

Mon. 1:00 PM – Ernest N. Morial Convention Center, 268

- 1:00 **423.01** Investigation of human multiple sclerosis lesions using multimodal non-linear microscopy and spectroscopy. K. W. POON*; C. BRIDEAU; W. TEO; R. KLAVER; G. J. SCHENK; J. H. KAWASOE; J. GEURTS; P. STYS. *Hotchkiss Brain Institute, Univ. of Calgary, VU Univ. Med. Ctr., Hotchkiss Brain Institute, Univ. of Calgary.*
- 1:15 **423.02** Practical guide to pediatric magnetic resonance imaging. H. DIRKS*; D. C. DEAN, III; J. O'MUIRCHARTAIGH; N. E. WASKIEWICZ; K. LEHMAN; B. A. JERSKEY; S. C. DEONI. *Brown Univ., King's College, Inst. of Psychiatry, Brown Univ.*
- 1:30 **423.03** A novel *in vivo* atlas of human hippocampal subfields using high-resolution magnetic resonance imaging. J. L. WINTERBURN; S. CHAVEZ; M. SCHIRA; J. PRUESSNER; J. PIPITONE; N. LOBAUGH; A. VOINESKOS; M. CHAKRAVARTY*. *Ctr. For Addiction and Mental Hlth., Univ. of New South Wales, McGill Univ.*
- 1:45 **423.04** • Anatomical patterns linking cortical thickness estimation with brain tissue properties in magnetic resonance imaging. A. RUEF*; J. DUKART; G. HELMS; N. WEISKOPF; R. S. FRACKOWIAK; F. KHERIF; B. DRAGANSKI. *Dept. des Neurosciences Cliniques CHUV, MR-Research in Neurol. and Psychiatry, Univ. Med. Ctr., Wellcome Trust Ctr. for Neuroimaging, UCL Inst. of Neurology, UCL, Max Planck Inst. for Human Cognitive and Brain Sci., Mind Brain Institute, Charité and Humboldt Univ.*
- 2:00 **423.05** • Regional development of cortical thickness and surface area from birth to 2 years of age. A. E. LYALL*; X. GENG; S. WOOLSON; H. ZHU; L. WANG; F. SHI; G. LI; R. HAMER; D. SHEN; J. H. GILMORE. *Univ. of North Carolina - Chapel Hill, Univ. of North Carolina - Chapel Hill, Univ. of North Carolina - Chapel Hill.*
- 2:15 **423.06** Alcohol, nutritional deficiency, and the brain: Translational neuroimaging studies. N. M. ZAHR*; E. V. SULLIVAN; A. PFEFFERBAUM. *Stanford Univ. Sch. of Med., SRI Intl.*
- 2:30 **423.07** Magnetic resonance imaging (MRI) and diffusion tensor imaging (DTI) define fiber tract deficiencies following early gestational ethanol exposure. S. K. O'LEARY-MOORE*; G. JOHNSON; F. BUDIN; I. OGUZ; M. STYNER; K. SULIK. *Univ. of North Carolina At Chapel Hill, Duke Univ., Univ. of North Carolina At Chapel Hill.*
- 2:45 **423.08** What advantages do parallel array coils and acceleration methods provide at resolutions typically used in functional MRI research? S. A. MCMAINS*; R. W. MAIR. *Harvard Univ., Massachusetts Gen. Hosp.*

- 3:00 **423.09** Effect of tractography methods on tract volume. S. MARENCO*; D. CHANDRAMOHAN; K. DEJONG; J. S. KIPPENHAN; K. V. ROE; C. B. MERVIS; A. PANI; C. A. MORRIS; D. R. WEINBERGER; K. F. BERMAN. *NIMH/CBDB, Univ. of Louisville, Hopkins Marine Station, Stanford Univ., Univ. of Nevada Sch. of Med., Lieber Inst. for Brain Develop.*
- 3:15 **423.10** Monitoring myelination by transplanted glial progenitors in dysmyelinated mouse brain using diffusion tensor MRI. A. LYCZEK*; J. ZHANG; M. JANOWSKI; J. W. M. BULTE; P. WALCZAK. *Radiology and Radiological Science, Johns Hopkins Univ., Inst. for Cell Engineering, Johns Hopkins Univ., Dept. of Neurosurgery, Mossakowski Med. Res. Centre, Polish Acad. of Sci., Dept. of NeuroRepair, Mossakowski Med. Res. Centre, Polish Acad. of Sci.*
- 3:30 **423.11** Multivariate MR-based characterization of morphometric changes in GIT1 knockout mouse brain. A. BADEA*; R. SCHMALZIGAUG; P. E. BONNER; W. KIM; G. JOHNSON; R. T. PREMONT. *Duke Univ. Med. Ctr., Duke Univ. Med. Ctr.*
- 3:45 **423.12** • Intergenerational effects of gestational cocaine exposure on rodent brain structure and diffusion properties. M. S. MCMURRAY; I. OGUZ; A. M. RUMPLE; P. R. MAKHAM; M. J. RADCLIFFE; Y. HONG; Y. CAI; H. AN; J. M. LAUDER; M. STYNER; J. M. JOHNS*, Ph.D. *Univ. of Illinois, Univ. North Carolina, Univ. North Carolina, Univ. North Carolina, Univ. North Carolina.*
- 4:00 **423.13** Magnetic resonance imaging of live and postmortem rat brains across adolescence. R. YAXLEY; F. BUDIN; M. HOOGSTOEL; J. LEE; E. MALTBIIE; W. LIU; A. JOHNSON; F. T. CREWS; I. OGUZ*. *Univ. of North Carolina At Chapel Hill, Univ. of North Carolina At Chapel Hill, Duke Univ.*
- 4:15 **423.14** Investigation of tissue scattering as a signal for functional brain imaging. I. SCHIESSL*; Z. G. TOTH. *The Univ. of Manchester, Obuda Univ.*

NANOSYMPOSIUM

424. Computational Modeling III

Theme G: Novel Methods and Technology Development

Mon. 1:00 PM – Ernest N. Morial Convention Center, 288

- 1:00 **424.01** Spikes as temporal beliefs: Bayes-optimal filtering of information in cortical microcircuit motifs. R. LEGENSTEIN*; W. MAASS. *Graz Univ. of Technol.*
- 1:15 **424.02** A computational model of the effects of drug addiction on the dynamics of neural populations. M. A. CHARY*; E. KAPLAN. *Mount Sinai Sch. of Med.*
- 1:30 **424.03** Colocalizing EEG and fMRI in Space. P. DOUGLAS*; D. MOYER; M. S. COHEN. *UCLA, UCLA, UCLA.*
- 1:45 **424.04** Constructing a detailed data-driven computational model of the prefrontal cortex. J. HASS*; L. HERTAEG; S. C. QUIROGA LOMBARD; T. GOLOVKO; C. C. LAPISH; J. K. SEAMANS; D. DURSTEWITZ. *Central Inst. of Mental Health, Med. Fac. Mannheim of Heidelberg Univ., Stark Neurosci. Res. Institute, Sch. of Medicine, Indiana Univ., Brain Res. Centre, Psychiatry, Fac. of Medicine, Univ. of British Columbia.*

- 2:00 **424.05** Simulation based verification of *in vivo* electric fields in hippocampus due to transcranial focal stimulation via tripolar concentric ring electrodes. D. A. BRITTON*; O. MAKEYEV; H. LUNA-MUNGUÍA; W. G. BESIO. *Univ. of Rhode Island, Univ. of Rhode Island, Univ. of Rhode Island.*
- 2:15 **424.06** The effects of ion channels and morphology on neural spiking. C. M. TEETER*; V. CHAN. *Sandia Natl. Lab., Qualcomm Res.*
- 2:30 **424.07** Bayesian inference with efficient neural population codes. X. WEI; A. STOCKER*. *Univ. of Pennsylvania.*
- 2:45 **424.08** Pharmacokinetics-inspired modeling of the oscillations induced by ketamine in rat prefrontal cortex. F. J. FLORES*; S. CHING; M. A. WILSON; E. N. BROWN. *Massachusetts Gen. Hosp., MIT, Harvard Univ., Boston Univ., MIT, MIT.*
- 3:00 **424.09** Defining the computation of a modulatory sensory pathway in the retina. N. NATEGH*; M. MANU; S. A. BACCUS. *Stanford Univ., Stanford Univ.*
- 3:15 **424.10** Modeling brain states for motor imagery brain computer interface applications. M. KAMRUNNAHAR*; A. GERONIMO; S. J. SCHIFF. *Penn State Univ., Penn State Univ.*
- 3:30 **424.11** Slow brightness-related responses in V1 are caused by local, feedback, or horizontal connections? B. CAO*; E. MINGOLLA; A. YAZDANBAKHSH. *Boston Univ., Boston Univ., Boston Univ.*
- 3:45 **424.12** Characteristics prediction of spike-timing-dependent plasticity in the hippocampal CA1 network by mutual information maximization. R. MIYATA; K. OTA; T. AONISHI*. *Tokyo Inst. Tech., JSPS Res. Fellow, RIKEN BSI, Tokyo Inst. Tech.*
- 2:00 A6 **425.06** Histone demethylase UTX specific to trimethyl H3K27 regulates neuronal differentiation. Y. K. KWON*. *Kyung Hee Univ.*
- 3:00 A7 **425.07** DNA methylation profiling of neuronal and non-neuronal cells in the human prefrontal cortex. A. KOZLENKOV*; A. TIMASHPOLSKY; M. BIBIKOVA; S. RUDCHENKO; Y. L. HURD; S. DRACHEVA. *Mount Sinai Sch. of Med., James J. Peters VA Med. Ctr., Illumina, Inc., Hosp. for Special Surgery.*
- 4:00 A8 **425.08** COUP-TFI acts in post-mitotic cells to control arealization and cell-type specification in the developing mammalian neocortex. C. ALFANO; E. MAGRINELLI; K. HARB; M. C. STUDER*. *Inst. of Biology, iBV (UMR INSERM1091/CNRS7277/UNS), Inst. of Biology, Ibv (UMR INSERM1091/CNRS7277/UNS).*
- 1:00 A9 **425.09** New 2-aminobenzamide-type histone deacetylase inhibitor (K-350) promotes neurite outgrowth via histone H3 modification in PC12 cells. K. SHIMOKE*; H. MARUOKA; R. HOSOKAWA; Y. HIRATA; H. KAWA; K. OKAMOTO; D. FUJIKI; S. UESATO; T. IKEUCHI. *Kanazai Univ.*
- 2:00 A10 **425.10** Molecular mechanisms for the neurite outgrowth caused by prostaglandin E₂ in mouse dorsal root ganglion cells. T. MAEDA*; K. MITANI; R. YAMAGATA; F. SEKIGUCHI; A. KAWABATA. *Kinki Univ. Sch. of Pharm. Div. of Pharmacol. and Pathophysiology.*
- 3:00 A11 **425.11** Effect of stat3 on motoneuron specification of human neural stem cells. P. WU*; R. NATARAJAN; V. SINGAL; H. CHAN; J. GAO; H. CHEN; T. DUNN; J. ZHOU. *UTMB, UTMB, UTMB.*
- 4:00 A12 **425.12** CoupTFI is required for retinoic acid mediated cortical development in Foxc1 mutant mice. S. J. HARRISON UY*; J. A. SIEGENTHALER; A. FAEDO; J. L. RUBENSTEIN; S. J. PLEASURE. *UCSF.*
- 1:00 A13 **425.13** Neuronal insulin regulated nestin and neurofilament expression in neuron cell cultures obtained from f stem cells of fetal rat brain. R. SCHECHTER*; A. KHATTAB; M. ANDERSON; K. E. MILLER. *Oklahoma State Univ. CHS.*
- 2:00 A14 **425.14** Gene and cell type-specific patterns of two histone modifications, H3K4me2 and H3K27me3, accompanying mouse retina development. C. J. BARNSTABLE*; E. POPOVA; S. ZHANG. *Penn State Coll Med.*
- 3:00 A15 **425.15** Pax6 and the H3K4 demethylase SMCX repress essential Dlk1 expression in neural stem cells. G. GAUDENZI; J. WALFRIDSSON; R. PAAP; O. B. HERMANSON*. *Dept. of Neuroscience, Karolinska Institutet.*
- 4:00 A16 **425.16** NfiB plays a role in neural progenitor cell maintenance during cortical development. J. BETANCOURT*. *Universtiy of California, Santa Cruz.*
- 1:00 A17 **425.17** Complete serum free culture kit and protocols for culturing high yields of functional mature neurons from primary embryonic mouse CNS tissues. S. A. LOUIS*; C. K. H. MAK; T. E. THOMAS. *STEMCELL Technologies Inc.*
- 2:00 A18 **425.18** Assessing the role of Lhx6 in medial ganglionic eminence-derived cortical interneuron development. D. VOGT*; S. MANDAL; J. L. RUBENSTEIN. *Univ. of California San Francisco, Univ. of Illinois Col. of Med.*

POSTER

425. Neuronal Differentiation Molecular Mechanisms

Theme A: Development

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 A1 **425.01** Dissecting the molecular signature of interneuron subtypes at embryonic stages. D. PENSOLD; N. HAAG; K. GERSTMANN; G. SALINAS-RIESTER; T. PIELER; G. ZIMMER*. *Univ. Clin. Jena, Univ. Hosp. Jena, Univ. Med. Ctr. Göttingen (UMG).*
- 2:00 A2 **425.02** Control of retinal ganglion cell differentiation. J. HERTZ*; X. JIN; J. LI; K. RUSSANO; B. DEROSA; D. VALENZUELA; D. DYXHOORN; V. LEFEBVRE; J. GOLDBERG. *ISCI, Univ. of Miami Med. Sch., Univ. of Miami Med. Sch., Cleveland Clin.*
- 3:00 A3 **425.03** Neuronal differentiation, nuclear receptor activity, and TGF-beta signaling are regulated by zinc deficiency in human neuronal precursor cells. D. R. MORRIS*; S. D. GOWER-WINTER; R. S. CORNIOLA; T. J. MORGAN, Jr.; C. W. LEVENSON. *Florida State Univ., Florida State Univ.*
- 4:00 A4 **425.04** Pax6 regulates projection versus interneuron fate in the developing olfactory bulb. F. IMAMURA*; C. A. GREER. *Yale Univ, Sch Med., Yale Univ, Sch Med.*
- 1:00 A5 **425.05** Suppressor of fused controls cerebellar precursor differentiation. J. KIM*; T. JIWANI; C. HUI; N. D. ROSENBLUM. *Hosp. For Sick Children, Univ. of Toronto, Univ. of Toronto, Univ. of Toronto.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 A19 **425.19** Intracellular chloride dependent regulation of proliferating interneuron-progenitors. A. MAGALHÃES*; C. RIVERA. *Univ. of Helsinki, Aix-Marseille Univ.*
- 4:00 A20 **425.20** Involvement of Secernin1 in Neuronal Differentiation. Y. TEZUKA; D. HATANAKA; M. OKADA; H. NISHIGORI; A. SANBE*. *Iwate Med. Univ. Sch. of Pharm.*
- 1:00 A21 **425.21** Notch signaling in the ventral hypothalamus affects formation of the developing arcuate nucleus. P. K. AUJLA*; L. T. RAETZMAN. *Univ. of Illinois At Urbana Champaign, Univ. of Illinois Urbana-Champaign.*
- 2:00 A22 **425.22** Regulation of REST turnover by Casein Kinase 1. N. KANEKO; R. ZUKIN*. *Albert Einstein Col. Med.*
- 3:00 A23 **425.23** ▲ Evaluating core2 and core3 interaction with histone demethylase, Ihd1 and deacetylases hdac1/2. Á. BARRIOS; A. V. GÓMEZ; J. SÁEZ; E. TOFFOLO; E. BATTAGLIOLI; M. E. ANDRES*. *Pontificia Univ. Católica de Chile, Univ. of Milan.*
- 4:00 A24 **425.24** WITHDRAWN
- 1:00 A25 **425.25** Phosphatidylinositol 3-Kinase and mitogen-activated protein-kinase signaling pathway play a role in the GPR3-mediated neurite outgrowth. S. TANAKA*; T. MIYAGI; E. DOHI; I. HIDE; T. SEKI; N. SAKAI. *Hiroshima Univ. Sch. of Biomed. Sci.*
- 2:00 A26 **425.26** Single-molecule imaging of transcription factor CREB in living cells. N. SUGO*; M. MORIMATSU; Y. ARAI; Y. KOUSOKU; A. OHKUNI; T. NOMURA; T. YANAGIDA; N. YAMAMOTO. *Osaka Univ., Osaka Univ.*
- 3:00 A27 **425.27** Dopamine D2 receptor-mediated transactivation of epidermal growth factor receptor regulates dopamine neuron development. S. YOON*; J. BAIK. *Korea Univ.*
- 4:00 A28 **425.28** 14-3-3 proteins regulate neurogenesis in cerebral cortex. K. TOYO-OKA*; T. WACHI-TOYOOKA; H. S. RAMSHAW; Q. P. SCHWARZ; A. F. LOPEZ; A. WYNshaw-BORIS. *Univ. California, San Francisco, Univ. California, San Francisco, 2. Centre for Cancer Biol.*
- 1:00 A29 **425.29** Roles of Bre1, a histone H2B ubiquitin ligase, in the neural precursor cell proliferation and differentiation. Y. ISHINO*; S. HITOSHI; K. IKENAKA. *Natl. Inst. For Physiological Sci., Dept Physiol, Shiga Univ. Med. Sci.*
- 2:00 A30 **425.30** STEV, a novel transmembrane protein, regulates dendritic filopodia formation in hippocampal neurons by specific protein palmitoylation. A. LEE*; C. PARK. *Gwangju Inst. of Sci. and Technol. (GIST).*
- 3:00 A31 **425.31** Effect of Wnt signaling in the cytoskeleton reorganization in human neuroblastoma cells. A. E. ORTIZ MATAMOROS*; P. FERRERA; C. ARIAS. *Inst. De Investigaciones Biomédicas, UNAM.*
- 4:00 A32 **425.32** Axin regulates the balance between proliferation and neuronal differentiation of neural precursor cells. W. FANG*; A. K. FU; N. Y. IP. *HKUST.*

POSTER

426. Postnatal Neurogenesis: Regulation and Temporal/Spatial Patterns I

Theme A: Development

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 A33 **426.01** Population codes in the dentate gyrus account for pattern separation. W. DENG*; M. MAYFORD; F. H. GAGE. *The Salk Inst., The Scripps Inst., The Salk Inst.*
- 2:00 A34 **426.02** ▲ Analysis of mechanism underlying brain growth accompanied by neurogenesis using young medaka fish (*Oryzias latipes*). Y. ISOE*; T. OKUYAMA; M. HOUKI; Y. SUEHIRO; Y. TANIGUCHI; T. KUBO; H. TAKEUCHI. *Tokyo Univ., Tokyo Women's Med. Univ., Keio Univ.*
- 3:00 A35 **426.03** Spine formation pattern of adult-born neurons is differentially modulated by the induction timing and location of hippocampal plasticity. N. OHKAWA*; Y. SAITOH; E. TOKUNAGA; I. NIHONMATSU; F. OZAWA; A. MURAYAMA; F. SHIBATA; T. KITAMURA; K. INOKUCHI. *Dept. of Biochem., Univ. of Toyama Grad. Sch. of Med. and Pharm., JST, CREST, Mitsubishi Kagaku Inst. of Life Sciences, MITILS, Div. of Cell. Therapy, Inst. of Med. Sci., Univ. of Tokyo.*
- 4:00 A36 **426.04** Neurogenic and gliogenic potential of mDach1-expressing cells in the roof of the lateral ventricle following focal cerebral ischemia. P. HONSA*; H. PIVONKOVA; M. ANDEROVA. *2nd Med. Fac. Prague, Inst. of Exptl. Med.*
- 1:00 A37 **426.05** ● Early exposure to general anesthesia disturbs mitochondrial dynamics in the developing rat brain. A. BOSCOLO*; A. STARR; V. SANCHEZ; D. MILANOVIC; A. OKLOPCIC; L. MOY; A. ERISIR; C. ORI; V. JEVTOVIC-TODOROVIC. *Univ. of Virginia, Univ. of Padova, Univ. of Virginia, Univ. of Virginia, Univ. of Padova.*
- 2:00 A38 **426.06** ▲ Topographical analysis of the subependymal zone neurogenic niche. A. M. FALCAO; J. A. PALHA*; A. C. OLIVEIRA; F. MARQUES; N. SOUSA; J. C. SOUSA. *Life and Hlth. Sci. Res. Inst. (ICVS), Sch. of Hlth. Sciences, U, ICVS/3B's - PT Government Associate Lab.*
- 3:00 A39 **426.07** Neurogenesis and gender change in the chinese mud snail *Cipangopaludina chinensis*. C. C. SWART*; A. WATTENBERGER; A. HACKETT. *Trinity Col.*
- 4:00 A40 **426.08** Rapid genetic targeting of pial surface progenitors and immature neurons by postnatal electroporation. J. J. BREUNIG*; D. GATE; R. LEVY; J. RODRIGUEZ JR; G. KIM; M. DANIELPOUR; C. SVENDSEN; T. TOWN. *Cedars-Sinai Hosp., Cedars-Sinai Hosp.*
- 1:00 A41 **426.09** Development of layer 1 neurons in the mouse neocortex. J. MA*; X. YAO; Y. FU; Y. YU. *Fudan Univ.*
- 2:00 A42 **426.10** ▲ Temporal dynamics of immediate early gene expression in mature and immature adult-born dentate granule cells. G. KANE; M. R. DREW*. *Univ. of Texas at Austin, Univ. of Texas At Austin.*
- 3:00 A43 **426.11** Voluntary running, but not stem cell treatment, recovers hippocampal neuroplasticity following whole-brain irradiation in immunodeficient mice. C. M. TOGNONI*; C. T. FLORES; A. C. WULSIN; E. A. BABB; L. W. JONES; C. L. WILLIAMS. *Duke Univ., Duke Cancer Inst., Univ. of Cincinnati, Duke Cancer Inst.*

- 4:00 A44 **426.12** ▲ Moderating effects of high versus low aerobic capacity on adult rat hippocampal neurogenesis following systemic doxorubicin treatment. E. A. BABB*; C. M. TOGNONI; J. M. SAIKIA; E. K. FOWLER; S. L. BRITTON; L. G. KOCH; C. L. WILLIAMS; L. W. JONES. *Duke Univ., Duke Cancer Inst., Univ. of Michigan.*
- 1:00 A45 **426.13** ▲ Effects of age on impairments in cognition and hippocampal cell proliferation by thioTEPA chemotherapy in mice. S. M. FITZGERALD; K. R. ANDERSON; E. T. WEBER*. *Rider Univ., Rider Univ.*
- 2:00 A46 **426.14** ▲ Effects of chemotherapy drugs thioTEPA and doxorubicin on hippocampal cell proliferation, anhedonia, and corticosteroid stress responses in mice. K. R. ANDERSON; S. M. FITZGERALD; J. D. KARP*; E. T. WEBER. *Rider Univ., Rider Univ.*

POSTER

427. Stem Cells and IPS II

Theme A: Development

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 A47 **427.01** ▲ Hematopoietic-derived cells as potential neural precursors in adult neurogenesis. R. KERY; B. S. BELTZ*; J. L. BENTON; I. SÖDERHÄLL. *Wellesley Col., Uppsala Univ.*
- 2:00 A48 **427.02** The NINDS Repository's publicly accessible collections of highly characterized induced pluripotent stem cells and primary fibroblasts. M. J. SELF*; K. FECENKO-TACKA; M. O'ROURKE; K. PANCKERI; C. RHODA; S. HEIL; K. HODGES; M. SUTHERLAND; R. CORRIVEAU; C. TARN. *Coriell Inst. For Med. Res., Coriell Inst. for Med. Res., Natl. Inst. for Neurolog. Disorders and Stroke-NIH.*
- 3:00 A49 **427.03** Automated patch clamp recordings from stem cell-derived neurons. J. ÖSTREICH; A. R. OBERGRUSSBERGER*; S. STÖLZLE; C. HAARMANN; A. BRÜGGEMANN; R. HAEDO; M. GEORGE; N. FERTIG. *Nanon Technologies, Nanon Technologies GmbH.*
- 4:00 A50 **427.04** Derivation of neural stem cells from adult peripheral cd34+ cells to study the effect of inflammation on neurogenesis. T. WANG*; M. MONACO-KUSHNER; E. CHOI; M. MEDYNETS; G. V. GELDERN; A. NATH. *NINDS/NIH.*
- 1:00 A51 **427.05** Morphological, molecular and functional differences of adult bone marrow- and adipose-derived stem cells isolated from rats of different ages. M. WIBERG; C. MANTOVANI; S. RAIMONDO; S. GEUNA; V. MAGNAGHI*; S. G. SHAWCROSS; G. TERENCE. *Univ. of Umea, Univ. of Milan, Univ. of Turin, The Univ. of Manchester.*
- 2:00 A52 **427.06** Stem/progenitor cells with neural differentiation potential during development and in adult leptomeninges. I. DECIMO; E. BERSAN; M. KUSALO; G. MALPELI; M. KRAMPERA; G. F. FUMAGALLI*; F. BIFARI. *Univ. of Verona, Univ. of Verona, Univ. of Verona.*
- 3:00 A53 **427.07** Glutamate induces postnatal retinal Müller glia dedifferentiation to a "progenitor-like" state through epigenetic mechanisms. L. I. REYES-AGUIRRE*; S. FERRARO; M. LAMAS. *CINVESTAV.*

- 4:00 A54 **427.08** Tsukushi maintains the growth and undifferentiated properties of stem/progenitor cells as a niche molecule. K. OHTA*; Y. SHINMYO; N. KANEKO; Y. HIROTA; J. HATAKEYAMA; M. YAMAGUCHI; K. SHIMAMURA; K. SAWAMOTO; H. TANAKA; A. ITO. *Kumamoto Univ. Grad Sch. Life Sci., Nagoya City Univ., Univ. of Tokyo.*
- 1:00 A55 **427.09** Using Cynomolgus macaque iPS cells to generate A9-dopaminergic neurons for cell therapeutic studies in animal models of Parkinson's disease. M. K. SUNDBERG*; T. LAWSON; T. OSBORN; G. SMITH; H. BOGETOFTE; P. HALLET; J. JANSSON; O. ISACSON; O. COOPER. *McLean Hospital/ Harvard Med. Sch.*
- 2:00 A56 **427.10** Inhibition of DAXX increases GAD67 expression in cultured hippocampal (HIPPO) GABA neurons. S. SUBBURAJU*; F. M. BENES. *Mailman Res. Center, McLean Hosp.*
- 3:00 A57 **427.11** ● Identification of a novel intronic enhancer responsible for the transcriptional regulation of Musashi1 in neural stem/progenitor cells. S. KAWASE*; T. IMAI; K. YAGUCHI; S. ITOHARA; H. OKANO. *Keio University, Sch. of Med., BSI, RIKEN.*
- 4:00 A58 **427.12** Neuronal differentiation of mouse embryonic stem cells overexpressing BDNF. J. LESCHIK; K. NIEWEG; K. GOTTMANN; V. LESSMANN; B. LUTZ*. *Univ. Med. Ctr. Mainz, Heinrich-Heine-Universität Düsseldorf, Otto-von-Guericke-University, Univ. Med. Ctr. Mainz.*
- 1:00 A59 **427.13** The crustacean cytokine astakine-1: A link between adult neurogenesis and hematopoiesis? J. L. BENTON*; Y. ZHANG; I. SÖDERHÄLL; B. S. BELTZ. *Wellesley Col., Uppsala Univ.*
- 2:00 A60 **427.14** Creating hTH-GFP reporter stem cell lines to study Parkinson's disease. S. SCHLEIDT*; J. CAI; L. IACOVITTI. *Thomas Jefferson Univ., Thomas Jefferson Univ.*
- 3:00 A61 **427.15** Transcriptional regulation of retinal fate determination from human induced pluripotent stem cells. A. SRIDHAR*; M. M. STEWARD; M. GUPTA; J. S. MEYER. *Indiana University-Purdue Univ. Indianapolis, Indiana University-Purdue Univ. Indianapolis, Indiana Univ., Stark Neurosciences Res. Inst.*
- 4:00 A62 **427.16** Induction to oligodendrocyte progenitors from mouse iPS cells and graft into the immature brain. S. MISUMI*; Y. UEDA; R. NISHIGAKI; T. MASUDA; H. HIDA. *Nagoya City Univ. Grad Sch.*
- 1:00 A63 **427.17** Transcriptional co-repressor KAP1 modulates neuronal differentiation and behaviour. L. FASCHING*; A. KAPOPOULOU; F. CAMMAS; P. TURELLI; D. TRONO; J. JAKOBSSON. *Lund Univ., Sch. of Life Sci. and Frontiers in Genet. Program, Ecole Polytechnique Fédérale de Lausanne (EPFL), Inst. de Recherche en Cancérologie de Montpellier.*
- 2:00 A64 **427.18** Novel molecular pathways regulating dopamine differentiation in hES and hiPS cell cultures. J. CAI*; S. SCHLEIDT; G. CANNARSA; D. HUTCHINGS; J. PELTER-HELLER; L. IACOVITTI. *Thomas Jefferson Univ.*
- 3:00 A65 **427.19** TLX-dependent adult neural stem cells in gliomagenesis. W. NIU; Y. ZOU; M. DOWNES; D. K. BURNS; C. ZHANG*. *UT Southwestern Med. Ctr., The Salk Inst.*
- 4:00 A66 **427.20** Rejuvenated astrocytes and canonical wnt signaling rescue midbrain stem/neuroprogenitors in ageing mouse model of Parkinson's disease. F. L'EPISCOPO*; C. TIROLO; N. TESTA; S. CANIGLIA; M. C. MORALE; B. MARCHETTI. *IRCCS Associazione Oasi Maria SS. - ONLUS, Med. Sch.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 A67 **427.21** Development of an *in vitro* model of nerve injury. T. J. BROWN*; C. POLITIS; L. TANZER; K. J. JONES. *Richard L. Roudebush VA Med. Ctr., Edward Hines Jr., VA Hosp.*
- 2:00 A68 **427.22** Hair keratinocyte derived human ips cells modeling developmental defects of the nervous system. S. LIEBAU*; Dr; L. LINTA; M. STOCKMANN; T. M. BOECKERS. *Ulm Univ.*
- 3:00 A69 **427.23** Genetic models for the study of mLin41, a stem cell regulator of the miRNA pathway. E. CUEVAS GARCIA*; A. RYBAK; G. F. WULCZYN. *Charité Universitätsmedizin, Max-Delbrück-Center for Mol. Med., Charité Universitätsmedizin.*
- 4:00 A70 **427.24** L-carnitine ameliorates propofol-induced toxicity in rat embryonic neural stem cells. C. WANG*; F. LIU; C. FOGLE; M. G. PAULE; W. SLIKKER, JR. *Natl. Ctr. For Toxicological Research/FDA, Natl. Ctr. for Toxicological Research/FDA, Natl. Ctr. for Toxicological Res. (NCTR)/FDA.*
- 1:00 B1 **427.25** Stemdiff™ neural induction system for the generation and expansion of rosette-forming neural progenitor cells from human pluripotent stem cells. A. A. BLAK*; J. ANTONCHUK; M. OLSON; T. E. THOMAS; A. C. EAVES; S. A. LOUIS. *STEMCELL Technologies Inc., BC Cancer Res. Ctr.*

POSTER

428. NMDA and Non-NMDA Receptors: Physiology

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 B2 **428.01** Protein kinase A potentiates NMDA receptor currents by accelerating receptor activation and resensitization. T. K. AMAN*; T. J. RUFFINO; G. K. POPESCU. *Univ. At Buffalo.*
- 2:00 B3 **428.02** ▲ Lentiviral knockdown of NR1 chronically suppresses NMDA-induced subthreshold oscillations in the inferior olive. J. TURECEK; V. Z. HAN; X. H. ZENG; Z. ZHU; J. P. WELSH*. *Seattle Children's Res. Inst.*
- 3:00 B4 **428.03** Dephosphorylation of C-terminal tyrosine residues does not alter ethanol sensitivity of recombinant NMDA receptors. B. A. HUGHES; C. T. SMOTHERS*; J. J. WOODWARD. *Med. Univ. of South Carolina, Med. Univ. South Carolina.*
- 4:00 B5 **428.04** ● Structure-activity studies of phenanthroic acid NMDA receptor positive allosteric modulators; potential pharmacological agents for cognitive enhancement and schizophrenia. B. M. COSTA; M. W. IRVINE; G. FANG; A. VOLIANSKIS; M. B. MAYO-MARTIN; R. EAVES; G. L. COLLINGRIDGE; D. E. JANE; D. T. MONAGHAN*. *Univ. of Nebraska Med. Ctr., Univ. of Bristol.*
- 1:00 B6 **428.05** Identification of a serine residue in the carboxy-terminal tail of GluN2B critical to regulation of NMDA receptor function. J. A. MURPHY*; I. S. STEIN; C. LAU; N. KANEKO; K. AROMOLARAN; S. O. SUADICANI; M. BENNETT; J. W. HELL; R. S. ZUKIN. *Albert Einstein Col. Med., Univ. of California, Harvard Univ., Albert Einstein Col. Med.*
- 2:00 B7 **428.06** The transcriptional repressor REST/NRSF and epigenetic marks of repression regulate the developmental switch in NMDA receptor subunits. A. RODENAS-RUANO*; A. E. CHAVEZ; M. J. COSSIO; P. E. CASTILLO; R. ZUKIN. *Albert Einstein Col. Med.*
- 3:00 B8 **428.07** Homocysteine, a schizophrenia related amino acid, impacts the activation and desensitization of NMDARs. A. D. BOLTON*; M. A. PHILLIPS; M. CONSTANTINE-PATON. *MIT.*
- 4:00 B9 **428.08** The functional role of intersubunit interactions between intramembrane regions of NMDA receptors. N. G. GLASGOW*; C. E. SHIBER; J. W. JOHNSON. *Univ. of Pittsburgh.*
- 1:00 B10 **428.09** Vac14, a regulator of Fab1, has both pre- and post-synaptic roles. A. J. MCCARTNEY*; Y. ZHANG; L. S. WEISMAN; M. A. SUTTON. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*
- 2:00 B11 **428.10** Deletion of glutamate delta-1 receptor in mouse leads to enhanced working memory and deficits in contextual fear conditioning. P. S. SURYAVANSHI*; R. YADAV; B. G. HILLMAN; S. C. GUPTA; D. J. STAIRS; S. M. DRAVID. *CREIGHTON UNIVERSITY, CREIGHTON UNIVERSITY.*
- 3:00 B12 **428.11** Galectin modulation of AMPA and kainate receptors is lectin isoform-specific and sensitive to N-glycan processing. B. A. COPITS*; S. BHANGOO; M. IMBESI; C. VERNON; R. SAKAI; G. T. SWANSON. *Northwestern Univ., Hokkaido Univ.*
- 4:00 B13 **428.12** The R628E mutation of GluA2 modulates glutamate-gated kinetics with preserved allosteric modulator activity. J. E. HARMS*; L. M. STONE-ROY; K. M. PARTIN. *Colorado State Univ., Colorado State Univ.*
- 1:00 B14 **428.13** ● Roles of distinct classes of glutamate receptors in synaptic transmission *in vivo*. D. YAN*; M. YAMASAKI; C. STRAUB; M. WATANABE; S. TOMITA. *Cell. & Mol. Physiol. and CNRR In Sch. of Medicine, Yale Univ., Dept. of Anatomy, Hokkaido Univ. Grad. Sch. of Med.*
- 2:00 B15 **428.14** The auxiliary subunits Neto1 and Neto2 reduce inward rectification of recombinant kainate receptors. J. L. FISHER*; D. D. MOTT. *Univ. So Carolina Sch. Med., Univ. So Carolina Sch. Med.*
- 3:00 B16 **428.15** GluA2-lacking AMPARs preferentially contribute to a slow interneuronal EPSC. T. L. STINCIC*; M. E. FRERKING. *Oregon Hlth. & Sci. Univ.*
- 4:00 B17 **428.16** Mechanisms on resveratrol-mediated up-regulation of glutamate receptor accumulation. G. WANG; S. AMATO; H. MAN*. *Boston Univ.*

POSTER

429. Non-NMDA Receptors Structure and Function

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 B18 **429.01** Activation of P2X receptors decreases AMPA receptor surface expression and postsynaptic efficacy in hippocampal neurons. E. TOULME; J. POUQUET; A. MARTINEZ; E. BOUE-GRABOT*. *Univ. of BORDEAUX.*

- 2:00 B19 **429.02** Using photo-activatable unnatural amino acid probes to map glutamate receptor gating. V. KLIPPENSTEIN; A. L. CARBONE*; A. J. R. PLESTED. *Leibniz-Institut Für Molekulare Pharmakologie & Neurocure Initiative, Charité.*
- 3:00 B20 **429.03** The involvement of EPS15 in ubiquitination-dependent AMPA receptor endocytosis. A. W. LIN*; H. Y. MAN. *Boston Univ.*
- 4:00 B21 **429.04** Quantitative analysis of kainate receptor subunits in the mouse brain. I. WATANABE*; H. AZECHI; Y. SUZUKI; C. NAKAMOTO; K. AKASHI; R. NATSUME; M. YAMAZAKI; M. ABE; M. WATANABE; K. SAKIMURA*. *Dept. of Cell. Neurobio. Basic Neurosci. Br. Brain Res. Ins, Hokkaido Univ. Grad. Sch. of, Core Res. for Evolutional Sci. and Technol. (CREST),.*
- 1:00 B22 **429.05** Characterization of the cellular and synaptic distribution of a new subunit-specific GluR1 monoclonal antibody in rat and non-human primate. R. PURI; W. JANSSEN; S. CZELUSNIAK; S. LEE-ARTEAGA; T. MORAN; J. H. MORRISON*. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*
- 2:00 B23 **429.06** Spinal TNF-driven neuronal trafficking of GluA1 is dependent on PI3K and PKA activity in inflammatory pain. G. WIGERBLAD*; F. J. KOEHRN; H. Z. YIN; J. H. WEISS; C. I. SVENSSON; L. S. SORKIN. *Karolinska Institutet, Dept. of Anesthesiol., Dept. of Neurol.*
- 3:00 B24 **429.07** ● Erbin is critical for surface expression of AMPA receptors in cortical interneurons. Y. CHEN*; Y. TAO; C. SHEN; R. BATES; D. LEE; W. XIONG; L. MEI. *Georgia Hlth. Sci. Univ., Georgia health Sci. Univ., GHSU.*
- 4:00 B25 **429.08** Neto protein interactions regulate synaptic GluK2/3 localization at hippocampal mossy fiber to CA3 pyramidal cell synapses. M. S. WYETH*; K. A. PELKEY; R. S. PETRALIA; M. TANG; M. W. SALTER; R. R. MCINNES; C. J. MCBAIN. *NIH, NIH, Hosp. for Sick Children, Univ. of Toronto, Hosp. for Sick Children, Univ. of Toronto, Jewish Gen. Hospital, McGill Univ.*
- 1:00 B26 **429.09** Ubiquitination of AMPA receptor and TSG101-dependent AMPA receptor trafficking. J. LUO*; J. M. HENLEY. *Univ. of Bristol.*
- 2:00 B27 **429.10** The effects of flavonoids on AMPA receptor-mediated calcium entry. T. KODA*; S. SONGMEN; K. TAKAMIYA; H. IMAI. *Tokyo Healthcare Uni, Univ. of Miyazaki.*
- 3:00 B28 **429.11** The organization of AMPA receptor subunits in rat hippocampus. A. L. JACOB; R. J. WEINBERG*. *Univ. North Carolina, Max Planck Florida Inst., Univ. North Carolina.*
- 4:00 B29 **429.12** Structural determinants in Neto proteins underlying their modulation of kainate receptor function and trafficking. T. N. GRIFFITH*; B. A. COPITS; G. T. SWANSON. *Northwestern Univ., Northwestern Univ.*
- 1:00 B30 **429.13** Mechanisms of AMPA receptor interaction with cornichon auxiliary subunits. N. F. SHANKS*; T. MARUO; O. CAIS; J. N. SAVAS; J. R. YATES, III; I. H. GREGER; T. NAKAGAWA. *UCSD, UCSD, MRC Lab. of Mol. Biol., Scripps Res. Inst.*
- 2:00 B31 **429.14** A potential synaptic role for AIDA-1 in the regulation of AMPA receptor trafficking through binding to ubiquitinated AMPA receptors. J. O. TINDI*; A. E. CHÁVEZ; P. E. CASTILLO; B. A. JORDAN. *Albert Einstein Col. of Med. of Yeshiva Univ.*
- 3:00 B32 **429.15** Channel properties reveal differential expression of TARPed and TARPless calcium-permeable AMPARs in stargazer stellate cells. C. BATTS*; D. SOTO; D. STUDNIARCZYK; M. FARRANT; S. G. CULL-CANDY. *Univ. Col. London, Laboratori de Neurobiologia - IDIBELL.*
- 4:00 B33 **429.16** Differences of AMPA and kainate receptor interactomes identify a novel AMPA receptor auxiliary subunit, GSG1L. T. NAKAGAWA*; N. F. SHANKS; J. N. SAVAS; T. MARUO; O. CAIS; A. HIRAO; S. OE; A. GHOSH; Y. NODA; I. H. GREGER; J. R. YATES, III. *UCSD, UCSD, Scripps Res. Inst., MRC Lab. of Mol. Biol., Jichi Med. Univ., UCSD.*
- 1:00 B34 **429.17** Biochemical analysis of the maturation differences for homomeric GluA2 and GluA3 receptors. S. K. COLEMAN*; M. WILLIBALD; A. SEMENOV; H. YING; K. KEINÄNEN. *Helsinki Univ.*
- 2:00 B35 **429.18** Two populations of inhibitory interneurons in macaque primary visual cortex express opposite glutamate receptor subunit combinations. R. N. KOOIJMANS*; M. W. SELF; F. G. WOUTERLOO; J. A. M. BELIEN; P. R. ROELFSEMA. *Netherlands Inst. for Neurosci., Vrije Univ. Med. Ctr., Vrije Univ. Med. Ctr.*
- 3:00 B36 **429.19** Modulation of hippocampal glutamatergic synapses by ghrelin. L. RIBEIRO; S. D. SANTOS; J. A. ESTEBAN; A. L. CARVALHO*. *CTR. For Neurosci. & Cell Biol., Ctr. de Biología Mol. Severo Ochoa, Consejo Superior de Investigaciones Científicas (CSIC) / Univ. Autónoma de Madrid.*

POSTER

430. Serotonin Receptors

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 B37 **430.01** Channelrhodopsin reveals robust 5-HT_{1A} receptor mediated autoinhibition in the dorsal raphe. D. HUERECA*; R. ANDRADE. *Wayne State Univ. Sch. of Med.*
- 2:00 B38 **430.02** Sex differences in hippocampal functionality in mice overexpressing postsynaptic 5-HT_{1A} receptors. A. PAZOS; R. VIDAL; A. AGUILERA; R. HABERZETTL; E. CASTRO; A. DIAZ; F. PILAR-CUELLAR*; H. FINK; B. BERT; J. BROSDA; E. M. VALDIZAN. *CIBERSAM, Inst. De Salud Carlos III, Santander, Spain, Inst. de Biomedicina y Biotecnología (IBBTec); Facultad de Medicina, Univ. de Cantabria-CSIC-SODERCAN, Dept. de Fisiología y Farmacología, Univ. de Cantabria, Inst. für Pharmakologie und Toxikologie, Fachbereich Veterinärmedizin Freie Univ.*
- 3:00 B39 **430.03** Aberrant regulation of prefrontal 5-HT_{1A} receptors in a mouse model of affective disorder vulnerability. N. M. GOODFELLOW*; E. K. LAMBE. *Univ. Toronto, Univ. of Toronto.*
- 4:00 B40 **430.04** Serotonin receptor 5-HT_{1B} signaling is modulated via heterodimerization with GHSR1a. C. ULLRICH*; A. KERN; R. G. SMITH. *The Scripps Res. Inst.*
- 1:00 B41 **430.05** 5-HT_{1B} autoreceptors modulate the expression of conditioned fear. Y. LIU*; J. F. NEUMAIER. *Univ. of Washington.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 B42 **430.06** Cerebral 5-hydroxytryptamine 2A receptor binding, but not metabotropic glutamate receptor 2, is increased in tryptophan hydroxylase 2 loss-of-function mice. C. V. JOERGENSEN*; J. P. R. JACOBSEN; A. B. KLEIN; C. LEHMANN; M. G. CARON; G. M. KNUDSEN; J. D. MIKKELSEN. *Neurobio. Res. Unit, Duke Univ.*
- 3:00 B43 **430.07** • Functional and behavioral characterization of a constitutively active mutant (V175D) form of the human 5-HT_{2A} receptor. A. L. HALBERSTADT*; E. S. BURSTEIN; M. A. GEYER; S. B. POWELL. *UCSD, ACADIA Pharmaceuticals Inc., Univ. California San Diego.*
- 4:00 B44 **430.08** Cannabinoid 2 receptor- and beta arrestin 2-dependent upregulation of serotonin 2A (5-HT_{2A}) receptors. J. M. FRANKLIN*; T. VASILJEVIK; T. E. PRISINZANO; G. A. CARRASCO. *Univ. of Kansas, Univ. of Kansas.*
- 1:00 B45 **430.09** Cannabinoid agonists increase the interaction between β -arrestin 2 and ERK1/2 and upregulate β -arrestin 2: Effect on serotonin 2A receptor upregulation. G. A. CARRASCO*; J. M. FRANKLIN. *Univ. of Kansas.*
- 2:00 B46 **430.10** 5HT_{2A} agonist activity in a HEK293 cell line co-expressing the 5HT_{2A} and mGluR2 G-protein-coupled receptors. A. M. DECKER*; B. P. GILMOUR; A. LANDAVAZO; B. E. BLOUGH. *RTI Intl., RTI Intl., RTI Intl.*
- 3:00 B47 **430.11** Serotonin 5-HT_{2C} residues W6.48, F6.51, and F6.52 are involved in functionally-selective ligand binding and signaling efficacy. N. VILLA*; T. C. CORDOVA-SINTJAGO; R. SAKHUJA; C. E. CANAL; L. FANG; R. G. BOOTH. *Univ. of Florida.*
- 4:00 B48 **430.12** Zebrafish htr2c. H. SCHNEIDER*; B. EDWARDS; R. FANTUS; M. POGUE. *Depauw Univ.*
- 1:00 B49 **430.13** Tissue expression and comparative pharmacological characterization of five 5-HT₄ receptor isoforms in the brain of the cynomolgous monkey. M. K. SCHMIDT*; N. NITSCHKE; M. VAN GALEN; F. POHLKI; A. H. MEYER. *Abbott GmbH & Co. KG.*
- 2:00 B50 **430.14** Serotonergic enhancement of synaptic transmission in rat medial vestibular nucleus. L. HAN*; S. K. LAI; C. H. LAI; Y. S. CHAN. *LKS Fac. of Medicine, The Univ. of Hong Kong, LKS Fac. of Medicine, The Univ. of Hong Kong.*
- 3:00 B51 **430.15** • 5-HT₆ receptor signaling effects neuronal primary cilia morphology. M. BRODSKY; J. M. SULLIVAN; J. F. NEUMAIER*. *Univ. of Washington, Univ. of Washington, Univ. Washington.*
- 2:00 B53 **431.02** Striatal D2 receptors regulate the anatomical organization of basal ganglia circuitry. M. CAZORLA*; N. CHUHMA; F. DELMONDES DE CARVALHO; M. SHEGDA; S. AHMARI; S. RAYPORT; C. KELLENDONK. *Columbia Univ., Columbia Univ.*
- 3:00 B54 **431.03** Dopamine D2 receptor-mediated AKT/PKB signaling: initiation by D2S receptor and role in quinpirole-induced behavioral activation. H. CHEN*; N. RUAN; T. LIN; J. CHEN. *Dept. of Pharmacology, Chang-Gung Univ., Chang-Gung Univ. of Sci. and Technol.*
- 4:00 B55 **431.04** Conserved residues in the transmembrane domains of the dopamine D2 receptor impart a role in its functional selectivity. D. VUPPALANCHI*; W. YAMAMOTO; C. PEPER; M. CUMBAY; G. OXFORD. *IUPUI, Indiana Univ. Sch. of Med., Butler Univ.*
- 1:00 B56 **431.05** Possible mechanisms of functional selectivity: Preferential coupling between G α and D2 dopamine receptor proteins. W. YAMAMOTO*; D. VUPPALANCHI; M. CUMBAY; G. OXFORD. *Indiana Univ. Sch. of Medicine, Stark Neurosciences Res. Inst., Butler Univ.*
- 2:00 B57 **431.06** Characterization of somatodendritic dopamine release in the absence of dopamine D2 autoreceptors. P. A. CODY; D. M. LOVINGER; Y. MATEO*. *Natl. Inst. on Alcohol Abuse and Alcoholism Natl. Inst. of Hlth.*
- 3:00 B58 **431.07** Pramipexole enhances AMPA receptor trafficking to the cell surface through a D3 receptor-linked Akt/GSK-3 β pathway. T. NAPIER*; S. E. TEDFORD; A. H. NEWMAN; A. L. PERSONS. *Rush Univ. Med. Ctr., NIDA-IRP.*
- 4:00 B59 **431.08** Molecular mechanism of GluR1 membrane insertion by dopamine. S. R. NEVES*; R. SONG; B. MASSENBURG. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*
- 1:00 B60 **431.09** Imaging d3 receptor occupancy by endogenous dopamine in humans: A [11c]-(+)-phno pet study. F. CARAVAGGIO; D. MAMO; M. MENON; C. BORLIDO; P. GERRETSEN; A. WILSON; G. REMINGTON; A. GRAFF-GUERRERO*. *Univ. of Toronto, Ctr. For Addiction & Mental Hlth., Ctr. For Addiction & Mental Hlth.*
- 2:00 B61 **431.10** Circadian-related heteromerization of adrenergic and dopamine D4 receptors modulates melatonin synthesis and release in the pineal gland. S. GONZÁLEZ; D. MORENO-DELGADO*; E. MORENO; K. PÉREZ-CAPOTE; R. FRANCO; J. MALLOL; A. CORTÉS; V. CASADÓ; C. LLUÍS; J. ORTIZ; S. FERRÉ; E. CANELA; P. MCCORMICK. *UNIVERSITAT DE BARCELONA, UNIVERSITAT AUTONOMA DE BARCELONA, NIH, Natl. Inst. on Drug Abuse.*
- 3:00 B62 **431.11** Tyrosine depletion and concomitant terminal autoreceptor stimulation lower *in vivo* dopamine levels in striatum and prefrontal cortex of the rat. Z. BRODNIK; M. DOUBLE; G. E. JASKIW*. *Louis Stokes Cleveland DVAMC, Case Western Reserve Univ.*
- 4:00 B63 **431.12** An α 1 adrenergic receptor (AR) stimulation compensates α 2-AR induced outward current in locus coeruleus neurons from spontaneous hypertensive rats, ADHD model animal. S. IGATA; T. HAYASHI; M. TAKANO; M. ISHIMATSU*. *Kyushu Univ. Sch. Med., Kurume Univ. Sch. Med., Kurume Univ. Sch. Med., Kurume Univ. Sch. Med.*

POSTER

431. Catecholamine Receptors

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 B52 **431.01** Dopamine D1-like receptor mediated increases in hippocampal acetylcholine are blocked by pharmacological interruption of the septo-hippocampal circuit at the medial septum: A dual probe microdialysis study in rats. D. E. JOHNSON; R. R. GORCZYCA*. *Pfizer Global Res. & Dev.*

- 1:00 B64 **431.13** α 1-adrenoceptor antagonist derived from the antipsychotic octoclotheptin - carbon-11 labelling and PET examination of brain uptake. A. ETTRUP*; R. RISGAARD; T. BALLE; A. DYSSEGAARD; H. D. HANSEN; S. LEHEL; J. MADSEN; B. BANG-ANDERSEN; G. M. KNUDSEN; J. L. KRISTENSEN. *Neurobio. Res. Unit, Fac. of Hlth. and Med. Sciences, Univ. of Copenhagen, PET and Cyclotron Unit, H. Lundbeck A/S.*
- 2:00 B65 **431.14** [3H]-(R,R')-4-methoxyfenoterol a new beta2-adrenergic receptor agonist to study agonist docking. L. TOLL*; L. JIMENEZ; J. E. BUPP; J. A. KOZOCAS; M. J. TANGA; K. JOZWIAK; K. PAJAK; A. PLAZINSKA; I. W. WAINER. *Torrey Pines Inst. For Mol. Studies, SRI Intl., Med. Univ. of Lublin, Natl. Inst. on Aging.*
- 3:00 B66 **431.15** Chronic treatment with pramipexole increases the potency of pramipexole-induced neuronal firing in the ventral pallidum. S. L. ROKOSIK*; A. H. NEWMAN; T. NAPIER. *Rush Univ. Med. Ctr., Loyola Univ. Med. Ctr., Rush Univ. Med. Ctr., Natl. Inst. on Drug Abuse, Intramural Res. Program, Natl. Inst. of Hlth.*
- 4:00 B67 **431.16** Oligomer size of class A G protein-coupled receptors revealed by fluorescence correlation spectroscopy. K. HERRICK-DAVIS*; E. GRINDE; T. LINDSLEY; J. MAZURKIEWICZ. *Albany Med. Coll.*

POSTER

432. Ion Channels and Disease

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 B68 **432.01** Norepinephrine-induced modulation of SK channels as a potential mechanism for the induction of dyskinesia attacks in a mouse model of Episodic Ataxia Type 2. E. F. TARA*; C. CHEN; K. KHODAKHAH. *Albert Einstein Col. Med.*
- 2:00 B69 **432.02** CK2 contributes to diminished small-conductance Ca^{2+} -activated K^{+} channel activity of hypothalamic paraventricular neurons in hypertension. J. L. PACHUAU*; D. LI; H. PAN. *UT-MD Anderson Cancer Ctr.*
- 3:00 B70 **432.03** Identification of novel peptides that alter ethanol modulation of BK channel function. L. L. SCOTT*; S. V. IYER; S. J. DAVIS; R. W. ALDRICH; S. J. MIHIC; J. T. PIERCE-SHIMOMURA. *The Univ. of Texas at Austin, The Univ. of Texas at Austin.*
- 4:00 C1 **432.04** A genetic strategy to determine the action of ethanol on the BK channel. S. DAVIS*; C. F. FARACO; L. L. SCOTT; L. BECKER; J. T. PIERCE-SHIMOMURA. *Inst. Neurosci, The Univ. of Texas at Austin.*
- 1:00 C2 **432.05** M-type K^{+} channel openers: *in vivo* neuroprotective role during cerebrovascular stroke. S. M. BIERBOWER*; F. S. CHOVEAU; M. S. SHAPIRO. *Univ. of Texas Hlth. Sci. Ctr.*
- 2:00 C3 **432.06** A mutation linked to oculopharyngeal muscular dystrophy (OPMD) severely impairs skeletal muscle excitation-contraction coupling. M. GARCÍA*; A. V. VEGA; G. AVILA. *Cinvestav-IPN, Escuela Superior de Medicina del IPN.*

- 3:00 C4 **432.07** The effect of dry eye on the properties of corneal primary afferent neurons activated by cooling and menthol. M. KUROSE*; A. TWAITE; K. YAMAMURA; I. D. MENG. *Univ. of New England, Niigata University, Grad. Sch. of Med. and Dent. Sci., Col. of Osteo. Medicine, Univ. of New England.*
- 4:00 C5 **432.08** Hydrogen sulfide (H_2S) increases T-type Ca^{2+} currents in afferent and efferent neurons projecting to the urinary bladder of rats. C. LEE*; H. KIM; B. CHA; J. SHIN; K. SONG; S. JEONG. *Brain Res. Group, Yonsei Univ. Wonju Col. of Med., Brain Res. Group, Yonsei Univ. Wonju Col. of Med., Chungnam Natl. Univ. Hosp.*
- 1:00 C6 **432.09** Functional plasticity of the afferent and efferent bladder neurons projecting to the urinary bladder in rats with benign prostatic hyperplasia. H. CHUNG; C. LEE; H. KIM; J. JUNG; J. SONG; S. JEONG*. *Yonsei Univ. Wonju Col. of Med., Yonsei Univ. Wonju Col. of Med.*
- 2:00 C7 **432.10** Effects of sustained impulse activity on the morphology of peripheral nerve fibres *in vivo*. D. TRIGO*; K. J. SMITH. *Dept. of Neuroinflammation, Inst. of Neurology, UCL, Univ. do Porto.*
- 3:00 C8 **432.11** Expression and function of proton-permeable cation channels in human glioma cells. A. HONASOGE*; H. SONTHEIMER. *Univ. of Alabama At Birmingham.*
- 4:00 C9 **432.12** Site-directed rna editing. M. F. MONTIEL*; J. J. C. ROSENTHAL. *Univ. of Puerto Rico, Univ. of Puerto Rico - Med. Sci. Campus.*
- 1:00 C10 **432.13** Alpha-synuclein increases N-type calcium channel currents. G. RONZITTI*; G. BUCCI; S. MOCHIDA; G. J. STEPHENS; E. CHIEREGATTI. *FONDAZIONE ISTITUTO ITALIANO DI TECNOLOGIA, Univ. of Reading, Univ. of Oxford, Tokyo Med. Univ.*
- 2:00 C11 **432.14** Familial hemiplegic migraine type 1 K1336E mutation alters direct G protein regulation of voltage-gated Cav2.1 channels. E. GARZA*; A. SANDOVAL; R. GONZALEZ; A. GANDINI; R. FELIX. *Ctr. of Res. and Advanced Studies IPN, FES Iztacala, UNAM, Dr. Manuel Gea González Gen. Hosp.*
- 3:00 C12 **432.15** Effect of N-type calcium channel deficiency in microglia on neuropathic pain. T. TANABE*; H. SAEGUSA; S. ZONG. *Tokyo Med. and Dent. Univ. Grad Sch. Med.*
- 4:00 C13 **432.16** ● Neuronal stem cell recordings of ion channel currents with automated patch clamp. J. WEBBER; L. D. LOEJKNER; A. LEE; S. DELAURA; C. MATHES*. *Sophion Bioscience, Inc., Cell. Dynamics International, Inc.*
- 1:00 C14 **432.17** Knockdown of TRPM7 inhibits invasiveness of malignant glioma cells. T. LENG*; Z. ZENG; X. FENG; H. SUN; Z. XIONG. *Morehouse Sch. of Med.*
- 2:00 C15 **432.18** Kv2.2: A novel molecular target to study the role of basal forebrain GABAergic neurons in the sleep-wake cycle. H. MISONOU*; T. HERMANSTYNE; A. MEREDITH; G. HOFFMAN; J. MONG. *Doshisha Univ., Univ. of Maryland, Morgan State Univ.*
- 3:00 C16 **432.19** Epileptiform activity of cholinergic oscillation via abnormal GABAergic response of tottering Ca^{2+} channel mutant mice. A. NAKAO*; T. MIKI; K. SHIMONO; T. NUMATA; S. KIYONAKA; J. L. NOEBELS; M. WAKAMORI; K. IMOTO; Y. MORI. *Kyoto Univ., JSPS Res. Fellow, Panasonic Corp., Baylor Col. of Med., Tohoku Univ., Natl. Inst. for Physiological Sci.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 C17 **432.20** Epistatic interactions at the axon initial segment in genetic epilepsy. M. OLIVA*; E. GAZINA; E. THOMAS; W. FRANKEL; S. PETROU. *Melbourne Brain Ctr., The Jackson Lab.*
- 1:00 C18 **432.21** Contribution of CIC-2 to chloride efflux in CA1 pyramidal neurons and its distribution within the thalamus. N. M. DAMMEIER; K. KAILA; H. LERCHE*; J. VOIPIO; C. NITURAD. *Univ. Tübingen, Univ. Helsinki, Univ. of Tuebingen.*
- 2:00 C19 **432.22** Excitatory GABA signaling in the nociceptive dorsal root ganglion neurons. Y. KIM*; I. JANG; J. KIM; S. JUNG; S. OH. *Seoul Natl. Univ., Hanyang Univ. Col. of Med.*

POSTER

433. HCN and Non-Selective Cation Channels

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 C20 **433.01** A novel calcium signaling mediated by STIM2-associated non-selective cation channels in spinal cord dorsal horn neurons. H. HU*; R. PAN. *Drexel Univ. Col. of Med.*
- 2:00 C21 **433.02** Using model databases to determine dendritic distributions of Ih channels in oriens-lacunosum/moleculare hippocampal interneurons. V. SEKULIC*; J. J. LAWRENCE; F. K. SKINNER. *Univ. of Toronto, Univ. Hlth. Network, Univ. of Montana, Univ. of Montana, Univ. of Toronto.*
- 3:00 C22 **433.03** ▲ Ih modulates theta rhythm and synchrony in a computer model of CA3. T. C. MOULIN*; M. M. HILSCHER. *Inst. de Bioquímica Médica, Univ. Federal Do Rio De Janeiro, Neurodynamics Lab, Dept. of Neuroscience, Uppsala Univ.*
- 4:00 C23 **433.04** Phosphorylation modulation of HCN channel-mediated current density in two classes of hippocampal principal neurons. A. D. WILLIAMS*; S. JUNG; N. P. POOLOS. *Univ. of Washington, Univ. of Washington.*
- 1:00 C24 **433.05** Functional alterations in HCN cation channels contribute to neuropathic pain processing in medial prefrontal cortex. S. CORDEIRO MATOS*; Z. ZHANG; P. SEQUELA. *Montreal Neurolog. Institute, McGill Univ.*
- 2:00 C25 **433.06** ● Ih channels prevent overexcitability of early developmental CA1 neurons showing high input resistance in rats. S. JUNG*; Y. YANG; S. KIM; M. KANG; S. EUN. *Jeju Natl. Univ.*
- 3:00 C26 **433.07** HCN4: A reliable marker of fast-spiking interneurons in the rat spinal cord and hippocampus. K. A. BOYLE*; C. M. KINNON; C. BILSLAND; J. A. QUAYLE; D. I. HUGHES. *Spinal Cord Res. Group, Inst. of Neurosci. and Psychology, Univ.*
- 4:00 C27 **433.08** Heteromeric HCN channels on the cell surface: Novel insights from TIRF/FRET imaging. Y. NOAM*; L. REGEV; A. KOH; N. HOSHI; T. Z. BARAM. *Univ. of California-Irvine, Univ. of California-Irvine, Univ. of California-Irvine, Univ. of California-Irvine.*
- 1:00 C28 **433.09** Thermal sensitivity of rapidly adapting type of mechanically activated currents in rat dorsal root ganglion neurons. Z. JIA*; J. LING; J. GU. *Univ. of Cincinnati, Col. of Med., Univ. of Cincinnati, Col. of Med.*

POSTER

434. Long-Term Depression III

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 C31 **434.01** Characterization of depotentiation at the hippocampal schaffer collateral-ca1 synapse. E. FALDINI*; T. AHMED; D. BALSCHUN. *K U Leuven.*
- 2:00 C32 **434.02** A novel mechanism regulating hippocampal synaptic plasticity and memory process by cdk5. J. SEO*; P. GIUSTI-RODRIGUEZ; K. OTA; Y. ZHOU; A. RUDENKO; S. CHO; J. GAO; E. CORNEJO; Z. XIE; H. PATZKE; R. NEVE; L. TSAI. *MIT, MIT, MIT.*
- 3:00 C33 **434.03** Differences in A1 receptor-mediated LTD between hippocampal areas CA1 and CA2 reflect developmental changes in the local expression of A1 receptors. D. A. CARUANA*; S. M. DUDEK. *NIEHS/NIH.*
- 4:00 C34 **434.04** CaMKII-mediated gating of cerebellar LTD through enhanced cGMP signaling. S. KAWAGUCHI*; T. HIRANO. *Doshisha Univ., Grad. Sch. of Science, Kyoto Univ.*
- 1:00 C35 **434.05** ▲ Enhancement of LTD at mossy fiber CA3 synapses by metabotropic glutamate receptors group II agonist and positive modulator. H. SHABAN*; L. HOSKENES; E. DE PRINS; H. LAVREYSEN; M. RAHMAN; J. KEMP. *Johnson & Johnson.*
- 2:00 C36 **434.06** Signaling events underlying TRPV1-mediated long-term depression at excitatory synapses on hippocampal interneurons. A. M. CHIRILA*; T. E. BROWN; J. A. KAUER. *Brown Univ.*
- 3:00 C37 **434.07** ● mGluR5 expression is required for NMDA receptor-dependent long-term depression in layer IV of mouse visual cortex. M. SIDOROV*; E. S. KAPLAN; A. MICHALON; G. JAESCHKE; J. G. WETTSTEIN; L. LINDEMANN; M. F. BEAR. *The Picower Inst. For Learning and Memory, MIT, F. Hoffmann-La Roche AG, F. Hoffmann-La Roche AG.*
- 4:00 C38 **434.08** Heterosynaptic plasticity at ventral tegmental area to nucleus accumbens fast inhibitory synapses. M. ISHIKAWA*; M. OTAKA; B. D. WINTERS; Y. HUANG; O. M. SCHLÜTER; Y. DONG. *Univ. of Pittsburgh, Washington State Univ., Univ. of Pittsburgh, European Neurosci. Inst.*
- 1:00 C39 **434.09** Effect of mGluR-dependent LTD on structural plasticity of dendritic spines. Y. RAMIRO*; I. ISRAELY. *Fundação Champalimaud.*

- 2:00 C40 **434.10** Long-term depression of excitatory synapses is mediated by retrograde 2-AG signaling in hippocampal pyramidal cells and GABAergic interneurons. Z. PÉTERFI; G. M. URBÁN; O. I. PAPP; B. NÉMETH; H. MONYER; G. SZABÓ; F. ERDÉLYI; K. MACKIE; T. F. FREUND; N. HÁJOS; I. KATONA*. *IEM HAS, Univ. Hosp. Heidelberg, Indiana Univ.*
- 3:00 C41 **434.11** Endosomal trafficking of AMPA receptors during synaptic plasticity. M. FERNANDEZ-MONREAL*; J. A. ESTEBAN. *Ctr. of Mol. Biol. Severo Ochoa/Csic.*
- 4:00 C42 **434.12** Inhibiting the dopamine transporter DAT impairs long-term depression at CA1 synapses through a D2-like dopamine receptors dependent mechanism. J. ROCCHETTI*; G. DAL BO; E. ISINGRINI; T. WONG; B. GIROS. *Douglas Univ. Mental Hlth. Inst., Pierre et Marie Curie Univ.*
- 1:00 C43 **434.13** Visual experience alters presynaptic release and plasticity in an NMDAR-dependent manner. R. LARSEN*; R. J. CORLEW; R. J. WEINBERG; B. D. PHILPOT. *Univ. of North Carolina, Max Planck Florida Inst., Univ. of North Carolina.*

POSTER

- 435. Intrinsic Membrane Properties: Dendritic and Synaptic Integration II**
- Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms**
- Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J
- 1:00 C44 **435.01** Density and function of potassium channels in the apical dendritic tuft of layer 5 neocortical pyramidal neurons. S. R. WILLIAMS*; M. T. HARNETT; J. C. MAGEE. *Queensland Brain Inst., Janelia Farm Res. Campus, Howard Hughes Med. Inst.*
- 2:00 C45 **435.02** Modeling heterogeneous dynamics and plasticity in cortical pyramids. H. G. SAAD*; G. SILVA. *UC San Diego, UC San Diego, UC San Diego.*
- 3:00 C46 **435.03** • Comparison of dendritic NMDA spikes and dendritic plateau potentials. K. D. IKONOMU; S. D. SHORT; M. T. RICH; S. D. ANTIC*. *UConn Hlth. Ctr.*
- 4:00 C47 **435.04** Simultaneous voltage and calcium imaging in single dendritic spines. C. D. ACKER*; E. HOYOS RAMIREZ; P. YAN; N. LIU; L. LOEW. *UConn Hlth. Ctr.*
- 1:00 C48 **435.05** Metabotropic receptor modulation of projection-specific prefrontal cortex layer 5 dendrites. B. E. KALMBACH*; N. DEMBROW; R. CHITWOOD; E. MCCORD; D. JOHNSTON. *Univ. Texas Austin, Univ. Texas Austin.*
- 2:00 C49 **435.06** Electrical signal processing in NG2 glia. T. KUO*; R. WENG; T. CHEN; C. LIEN. *Inst. of Neurosci. and Brain Res., Natl. Yang-Ming Univ.*
- 3:00 C50 **435.07** Fine tuning of action potential conduction velocity in myelinated CNS axons. M. C. FORD; O. ALEXANDROVA; L. COSSELL; D. ATTWELL; B. GROTHE*. *Ludwig Maximilians Univ. Munich, Grad. Sch. of Systemic Neurosciences, Univ. Col. London.*
- 4:00 C51 **435.08** • Dendritic activity in ca1 hippocampal parvalbumin-positive interneurons during sharp wave oscillations. B. CHIOVINI*; G. F. TURI; D. PÁLFI; G. KATONA; A. KASZÁS; G. SZALAY; K. SPITZER; F. ERDÉLYI; G. SZABÓ; B. RÓZSA. *Inst. of Exptl. Med. Hungarian Acad. of Sci., Department of Neurosci., Pázmány Péter Catholic Univ.*

- 1:00 C52 **435.09** Modulation of dendritic excitability in the apical tuft dendrites of the rat prefrontal cortex studied with 120 minute calcium dye loading protocols. S. M. SHORT*; K. D. IKONOMU; M. T. RICH; S. D. ANTIC. *Univ. of Connecticut Hlth. Ctr.*
- 2:00 C53 **435.10** Complex spike bursts in CA1 hippocampal neurons *in vivo* require NMDA-R activation. C. GRIENBERGER*; X. CHEN; A. KONNERTH. *Inst. for Neurosci.*
- 3:00 C54 **435.11** Recording and calibrating EPSPs in dendritic spines evoked by 2-photon glutamate uncaging using voltage-sensitive dyes. E. A. HOYOS RAMIREZ*; C. ACKER; N. LIU; P. YAN; L. LOEW. *Univ. of Connecticut Hlth. Ctr.*
- 4:00 C55 **435.12** Inhibitory control of dendritic excitability in neocortical pyramidal neurons by neurogliaform cells. C. WOZNY*; G. TAMÁS; D. SCHMITZ; S. R. WILLIAMS. *Charite - Universitaetsmedizin, Hungarian Acad. of Sciences, Univ. of Szeged, The Queensland Brain Inst.*
- 1:00 C56 **435.13** A crucial role of dendritic voltage-gated sodium channels in calcium signaling and long-term potentiation induction in the tuft dendrites of hippocampal CA1 pyramidal neurons. C. HSU*; Y. KIM; N. SPRUSTON. *Janelia Farm Res. Campus, Howard Hughes Med. Inst.*
- 2:00 C57 **435.14** Can power laws in macroscopic and microscopic neural recordings be explained by the cable properties of neurons? K. H. PETTERSEN*; H. LINDÉN; T. TETZLAFF; G. T. EINEVOLL. *Norwegian Univ. of Life Sci., Royal Inst. of Technol. (KTH), Res. Ctr. Juelich, Norwegian Univ. of Life Sci.*
- 3:00 C58 **435.15** HCN channels contribute to the spatial synchrony of theta frequency synaptic inputs in CA1 pyramidal neurons. S. P. VAIDYA*; D. JOHNSTON. *Ctr. For Learning and Memory, Univ. of Texas At Austin.*
- 4:00 C59 **435.16** Long-term plasticity of inhibitory synapses at thalamic relay neurons. A. SIEBER; J. STREIT*; T. NEVIAN. *Univ. Bern.*

POSTER

- 436. Abeta Assembly and Deposition II**
- Theme C: Disorders of the Nervous System**
- Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J
- 1:00 C60 **436.01** Early enriched environment exposure rescues spatial memory deficits and accelerates brain amyloid deposition in APP/PS1 mice. F. MONTAROLO; R. PAROLISI; E. HOXHA; F. TEMPIA*. *N.I.C.O. - Neurosci. Inst. Cavalieri Ottolenghi, Univ. of Torino.*
- 2:00 C61 **436.02** Parkin reverses A β ₁₋₄₂-induced alterations of brain metabolism: ¹³C NMR studies. N. ALGARZAE*; M. HEBRON; I. LONSKAYA; N. DESFORGES; C. MOUSSA. *Gerogetown Univ. Lab., Gerogetown Univ.*
- 3:00 C62 **436.03** • Different A β -assemblies have distinct effects on basal neurotransmission and LTP. K. S. KROKER; J. MORETH; G. RAST; B. SOMMER*; H. ROSENBROCK; L. KUSSMAUL. *Boehringer Ingelheim Pharma GmbH & Co. KG, CNS Dis. Research, Boehringer Ingelheim Pharma GmbH & Co. KG.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 C63 **436.04** Clustering of plaques as an alternative mechanism of plaque growth in a mouse model of Alzheimer's disease. J. MCCARTER; S. LIEBSCHER; T. BACHHUBER; C. ABOU-AJRAM; B. T. HYMAN; C. HAASS; M. MEYER-LUEHMANN*. *Ludwig Maximilians Univ., Max Planck Inst. of Neurobio., MGH/Harvard Med. Sch., DZNE-German Ctr. for Neurodegenerative Dis., Neurocenter, Dept. of Neurology, Univ. of Freiburg.*
- 1:00 C64 **436.05** A unique conformation of amyloid is associated with cerebrovascular amyloid deposits. R. ALBAY*, III; A. PENSALFINI; A. HATAMI; S. MILTON; H. ARAI; C. G. GLABE. *Univ. of California Irvine.*
- 2:00 C65 **436.06** Intracellular M78 amyloid immunoreactivity colocalizes with nuclear APP-CTF immunoreactivity in early Alzheimer's Disease. A. PENSALFINI*; R. ALBAY, III; L. MARGOL; A. HATAMI; S. RASOOL; H. ARAI; S. MILTON; W. POON; Z. SHAN; C. GLABE. *Univ. California Irvine, Univ. California Irvine, Univ. California Irvine.*
- 3:00 C66 **436.07** Intraneuronal formation of high-mass spherical amyloid beta assemblies from amyloid precursor proteins in neurons with Alzheimer's mutations. H. KOMURA*; N. TAKINO; S. MURAMATSU; M. HOSHI. *TAO Hlth. Life Pharma, Jichi Med. Univ., Kyoto Univ.*
- 4:00 C67 **436.08** Cerebral heme and amyloid beta in aging Tg2576 mice. B. E. DWYER*; J. R. BEAN; G. PERRY; X. ZHU. *VA Med. Ctr., Univ. of San Antonio, Case Western Reserve Univ.*
- 1:00 C68 **436.09** CCL2 Influences β -amyloidosis and cognition in a mouse model of Alzheimer's disease. T. KIYOTA*; H. E. GENDELMAN; R. A. WEIR; E. E. HIGGINS; G. ZHANG; M. JAIN. *Univ. of Nebraska Med. Ctr.*
- 2:00 C69 **436.10** Increased solvent exposure of amyloid beta n-terminal residues affects its ability to cause membrane permeation. T. L. WILLIAMS*; P. H. MASSEY; B. BARZ; M. M. CONDRON; D. B. TELOW; B. URBANC. *Drexel Univ., UCLA.*
- 1:00 D4 **437.05** Characterization of the oligomeric forms of tau. D. S. HIMMELSTEIN*; K. PATTERSON; Y. FU; S. WARD; N. KANAAN; J. LANCIA; L. I. BINDER. *Northwestern Univ., Northwestern Univ., Michigan State.*
- 2:00 D5 **437.06** ● Amyloid beta triggers tau to induce region-specific dendritic remodeling via dynamic phosphorylation at disease-relevant sites. N. GOLOVYASHKINA; C. TACKENBERG; L. BAKOTA; R. BRANDT*. *Univ. of Osnabrueck.*
- 3:00 D6 **437.07** Identification of stress granules as a novel pathology in tauopathies and Alzheimer's disease. T. E. VANDERWEYDE*; M. IULIANO; K. COX; N. AYATAN; A. DEDEOGLU; B. WOLOZIN. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med., VA Boston Healthcare Syst.*
- 4:00 D7 **437.08** Immunocytochemical characterization of tau protein in SH-SY5Y human neuroblastoma cells. P. FLORES-RODRIGUEZ; N. ZARCO; F. PEREZ*; J. LUNA-MUÑOZ; R. MENA; J. SEGOVIA-VILA. *Ctr. de Investigación y de Estudios Avanzados del IPN, INNyN.*
- 1:00 D8 **437.09** ▲ Long-term proteasomal inhibition in transgenic mice by UBB⁺¹ expression results in respiratory dysfunction associated with brainstem neuropathology in Alzheimer's disease. R. J. GENTIER; D. A. HOPKINS; F. W. VAN LEEUWEN*. *Maastricht Univ., Maastricht Univ.*
- 2:00 D9 **437.10** Inhibition of the proteasome-associated deubiquitinating enzyme Usp14 with IU1 affects cell viability, TAU stability, caspase and calpain activities and accumulation of ubiquitinated proteins in rat primary neuronal cultures: Implications to Alzheimer's disease. M. J. KIPROWSKA*; V. ZHUKAREVA; M. FIGUEIREDO-PEREIRA. *Hunter College, CUNY, Grad. Center, CUNY, LifeSensors Inc., Hunter Col. and Grad. Center, CUNY.*
- 3:00 D10 **437.11** Pharmacological characterization of novel p38 mitogen activated kinase (p38 MAPK) inhibitors against inflammation-induced tau pathology. N. MAPHIS; G. XU; J. P. SCHAVOCKY; S. M. ROY; L. J. VAN ELDIK; D. M. WATTERSON; R. M. RANSOHOFF; K. BHASKAR; B. T. LAMB*. *The Cleveland Clin., Northwestern Univ., Sander-Brown Ctr. on Aging, Univ. of Kentucky.*
- 4:00 D11 **437.12** Expression of a histone deacetylase enhances mistargeting of phosphorylated tau to soma of hippocampal neurons. K. A. MEDEIROS*; J. J. CHAMBERS. *UMASS Amherst.*
- 1:00 D12 **437.13** Mitochondria-linked energy deficit in neurons leads to 26S proteasome disassembly and TAU cleavage via calpain activation: Relevance to Alzheimer's disease. Q. HUANG*; H. WANG; M. FIGUEIREDO-PEREIRA. *Hunter College, Grad. Ctr. of City Univ. New York.*
- 2:00 D13 **437.14** Tau facilitates excitotoxicity and mitochondrial dysfunction caused by kainic acid and amyloid beta. S. M. PRITCHARD*; G. V. W. JOHNSON. *Univ. of Rochester Sch. of Med. and Dent., Univ. of Rochester SMD.*
- 3:00 D14 **437.15** ● Mechanisms of the cytotoxicity of tau-related peptides. W. J. GOUX; L. LI; J. R. VELORIA, III; G. COSTILLA; L. WANG; S. R. D'MELLO; G. BREEN*. *The Univ. of Texas at Dallas, The Univ. of Texas At Dallas.*
- 4:00 D15 **437.16** Phosphorylation regulates the dynamic association of tau with neuronal membranes and the tyrosine kinase fyn. A. POOLER*; A. USARDI; W. NOBLE; D. HANGER. *King's Col. London.*
- 1:00 D16 **437.17** Characterization of EFhd2, a calcium-binding protein associated with tau in tauopathies. Y. FERRER ACOSTA*; E. N. RODRIGUEZ; I. E. VEGA. *Univ. of Puerto Rico Rio Piedras Campus.*

POSTER

437. Alzheimer's Disease and Other Dementias: Tau Biochemistry

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 C70 **437.01** ● Sites selective suppression of AD-like pathological soluble tau aggregates improves memory and synaptic deficits in aged human tau transgenic mice. Q. MA*; D. J. GANT; O. J. UBEDA; F. YANG; G. M. COLE; S. A. FRAUTSCHY. *UCLA, Greater Los Angeles Veterans Affairs Healthcare System, VA Med. Ctr.*
- 2:00 D1 **437.02** ▲ P301L mutant tau induces pronounced degeneration of antioxidant-deprived rat cortical and hippocampal neurons in culture. N. M. CHIKWEM; K. A. BASKERVILLE*. *Lincoln Univ.*
- 3:00 D2 **437.03** Functional consequences of stress: Impact of *in vitro* stress exposure on tau phosphorylation, aggregation and axonal transport. M. H. LE; T. C. HEXOM*; C. WU; R. A. RISSMAN. *UCSD Sch. of Med.*
- 4:00 D3 **437.04** Single chain variable fragment specific for trimeric tau as a tool to study Alzheimer's disease. H. TIAN*; E. DAVIDOWITZ; J. G. MOE; M. R. SIERKS. *Arizona State Univ., Oligomerix Inc., Arizona State Univ.*

- 2:00 D17 **437.18** Differential Tau hyperphosphorylation is associated with age-dependent neurodegeneration in presenilin knockout mice. A. JOSEPH*; F. MUSARRAT; Y. TANG. *LSUHSC*.
- 3:00 D18 **437.19** Characterization of wnt signaling in app and tau transgenic mouse models of Alzheimer's disease. J. RIISE*; L. REFSGAARD; A. PARACHIKOVA; N. PLATH. *Bispebjerg Univ. Hosp., H. Lundbeck A/S, Copenhagen Univ.*
- 4:00 D19 **437.20** Intraneuronal β -amyloid and tau pathology occur concurrently in the hippocampus of postnatal 3xTg-AD mouse pups. S. E. PEREZ*; E. MUFSON. *Rush Univ. Med. Ctr.*
- 1:00 D20 **437.21** Leptin resistance and the microtubule-associated protein tau. T. L. PLATT*; D. M. NIEDOWICZ; K. KOHLER; T. L. BECKETT; M. P. MURPHY. *Room 226, Sanders-Brown Ctr. On Aging, Univ. of Kentucky, Univ. of Kentucky.*

POSTER

438. Alzheimer's Disease: Neuroinflammation III

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 D21 **438.01** • Multiple low-dose injections of HUCBCs improve neurocognitive impairment and reduce A β -associated neuropathology in Alzheimer's mice. D. DARLINGTON*; J. DENG; B. GIUNTA; H. HOU; C. D. SANBERG; N. KUZMIN-NICHOLS; H. ZHOU; T. MORI; J. EHRHART; P. R. SANBERG; J. TAN. *Rashid Lab. for Developmental Neurobiology, Morsani Col. of Medicine, Universi, Daping Hospital, Third Military Med. Univ., Neuroimmunology Laboratory, Morsani Col. of Medicine, Univ. of South Florida, Ctr. for Aging and Brain Repair, Morsani Col. of Medicine, Univ. of South Florida, Saneron CCEL Therapeutics, Inc., Saitama Med. Ctr. and Saitama Med. Univ., Daping Hospital, Third Military Med. Univ.*
- 2:00 D22 **438.02** Redefine the Mechanism of tetrahydrocannabinol (THC) against Alzheimer's Disease. Y. LI*; C. CAO; J. CAI. *Byrd Alzheimer's Inst., Univ. of South Florida.*
- 3:00 D23 **438.03** Local induction of OPN by immune cells is associated with decreased A β plaque burden in GA-immunized APP/PS1 mouse models. B. C. SALUMBIDES*; A. RENTSENDORJ; Y. KORONYO; J. SHEYN; D. FUCHS; X. SHEN; M. PHAM; K. L. BLACK; M. KORONYO-HAMAOUI. *Cedars Sinai Med. Ctr., Cedars-Sinai Med. Ctr.*
- 4:00 D24 **438.04** A potential link between viral inflammation and Alzheimer's disease. M. S. KAHN*; J. NOURI; J. MITCHEL; D. KRANJAC; M. EIMERBRINK; G. W. BOEHM; M. J. CHUMLEY. *Texas Christian Univ., Texas Christian Univ.*
- 1:00 D25 **438.05** Early inflammatory process in a novel transgenic rat model of Alzheimer's disease. C. E. HANZEL*; A. PICHET-BINETTE; C. CUELLO. *McGill Univ.*
- 2:00 D26 **438.06** Complement receptor 3-deficiency induces pathological changes in APPswe/PS1dE9 mouse model of Alzheimer's disease. H. FU; B. LIU; J. L. FROST; J. KENISON; C. A. LEMERE*. *Brigham & Women's Hosp; Harvard Med. Sch.*
- 3:00 D27 **438.07** • Ankyrin G immunoreactivity in Alzheimer's disease. M. FERRETTI*; A. CHADHA SANTUCCIONE; M. MERLINI; A. SHETTY; C. TACKENBERG; J. BALI; J. MCAFOOSE; L. KULIC; C. BERNREUTHER; T. WELT; J. GRIMM; M. GLATZEL; L. RAJENDRAN; C. HOCK; R. NITSCH. *Div. of Psychiatric Research, Univ. of Zurich, Univ. of Zurich, Univ. of Zurich, Univ. Med. Ctr. Hamburg-Eppendorf, Neurimmune Therapeut. AG.*
- 4:00 D28 **438.08** Inflammatory markers and hippocampal volume: Findings from the Genetics of Microangiopathic Brain Injury study. M. F. SCHMIDT*; K. B. FREEMAN; B. G. WINDHAM; M. E. GRISWOLD; W. WANG; T. H. MOSLEY, Jr. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr.*
- 1:00 D29 **438.09** ▲ Genotyping CD46 and p25 transgenic mice to establish a novel mouse model of neuron-specific viral infection and tauopathy. A. MISRA*; J. SKIPWORTH; U. AGUBOKWU; G. RALL; K. BASKERVILLE. *Lincoln Univ., Fox Chase Cancer Ctr.*
- 2:00 D30 **438.10** •Emerging roles of pathogens in Alzheimer's and moderate magnetic field therapy: dc emf 0.5 tesla. T. W. NICHOLS*. *Trent Nichols MD.*
- 3:00 D31 **438.11** Overexpression of human C-reactive protein exacerbates cognitive impairment and neuropathology in a mouse model of Alzheimer's disease. D. CAO*; H. LU; D. HOTTMAN; W. ZHANG; S. CHENG; L. HOVDE; T. WRIGHT; M. PEGUES; A. SZALAI; L. LI. *Univ. of Minnesota, Univ. of Alabama at Birmingham.*
- 4:00 D32 **438.12** ▲ Autoantibody profiling for candidate biomarkers of Alzheimer's disease and related tauopathies. J. VAQUER-ALICEA*; C. NOGUERAS-ORTIZ; I. E. VEGA. *Univ. of Puerto Rico-Rio Piedras Campus, Univ. of Puerto Rico-Rio Piedras Campus, Univ. of Puerto Rico-Rio Piedras Campus, Univ. of Puerto Rico-Rio Piedras Campus.*
- 1:00 D33 **438.13** Altered T cell responses to A β as an early diagnostic test for Alzheimer's disease. A. N. BEGUM*; C. CUNHA; D. W. ETHELL. *Western Univ. of Hlth. Sci.*
- 2:00 D34 **438.14** Amyloid Precursor Protein as a cholesterol regulator in the pathogenic cascade of late-onset Alzheimer's disease. M. A. CASTELLO*; A. BHATTACHARYA; S. SORIANO. *Loma Linda Univ.*
- 3:00 D35 **438.15** Anti-inflammatory and Abeta lowering properties of anatabine in a transgenic mouse model of Alzheimer's disease. M. VERMA*; D. BEAULIEU-ABDELAHAD; C. BACHMEIER; J. REED; G. AIT-GHEZALA; A. BISHOP; C. JIN; V. MATHURA; F. CRAWFORD; M. MULLAN; D. PARIS. *Roskamp Inst.*
- 4:00 D36 **438.16** Diabetes exacerbates amyloid and neurovascular pathology in aging-accelerated mice. A. CURRAIS*; M. PRIOR; D. LO; C. JOLIVALT; D. SCHUBERT; P. MAHER. *The Salk Inst., The Salk Inst., Univ. of California San Diego.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 D37 **438.17** Immune-mediated mechanisms in the pathogenesis of cerebral amyloid angiopathy-related inflammation: role of anti- $\alpha\beta$ auto-antibodies. F. PIAZZA*; S. M. GREENBERG; M. SAVOJARDO; M. GARDINETTI; L. CHIAPPARINI; I. RAICHER; H. SAKAGUCHI; M. BRIOSCHI; G. BILLO; A. COLOMBO; F. LANZANI; G. PISCOSQUITO; M. CARRIERO; G. GIACCONE; F. TAGLIAVINI; C. FERRARESE; J. C. DIFRANCESCO. *Univ. of Milano-Bicocca, Massachusetts Gen. Hospital, Harvard Med. Sch., Inst. Neurologico C. Besta, Univ. of São Paulo, Kumamoto Univ., Ospedale Niguarda Ca' Granda, St. Bortolo Hosp., Desio Hosp.*
- 2:00 D38 **438.18** Deficiency of the anti-inflammatory cytokine interleukin-10 in Alzheimer's transgenic mice activates innate immunity and restricts cerebral $A\beta$. M. GUILLLOT-SESTIER*; K. REZAI-ZADEH; J. RODRIGUEZ; D. GATE; T. TOWN. *Regenerative Med. Institute/ Cedars Sinai Med. Ctr., UCLA.*
- 3:00 D39 **438.19** Prostaglandin EP4 receptor signaling in microglia reduces inflammatory responses to Amyloid-beta and reduces amyloid burden in models of Alzheimer's disease. K. I. ANDREASSON*; N. WOODLING; J. SHI; P. PRIYAM; J. JOHANSSON; Q. WANG. *Stanford Univ. Sch. Med.*
- 4:00 D40 **438.20** Ablation of microglial PGE2 EP2 signaling enhances microglial chemotaxis and $A\beta$ peptide clearance in a model of Alzheimer's disease. J. U. JOHANSSON*; Q. WANG; T. LOUI; N. S. WOODLING; K. ANDREASSON. *Stanford Univ.*
- 1:00 D45 **439.05** Systematic characterization of LRRK2 monoclonal antibodies reveal novel LRRK2 localization in the mouse, rat and human brain. N. N. SUKAR*; P. DAVIES; K. HINKLE; R. MESIAS; B. SEPULVEDA; G. SERRANO; D. ALESSI; T. G. BEACH; D. L. BENSON; C. L. WHITE, III; R. M. COWELL; S. S. DAS; H. MELROSE; A. B. WEST. *Univ. of Alabama at Birmingham, Univ. of Dundee, Mayo Clin. Jacksonville, Mount Sinai Sch. of Med., Banner Sun Hlth. Res. Inst., Univ. of Texas Southwestern Med. Sch., Univ. of Alabama at Birmingham, The Michael J. Fox Fndn. for Parkinson's Res.*
- 2:00 D46 **439.06** Next generation LRRK2 small molecule inhibitors demonstrate selectivity and specificity in cell based and mammalian based models. K. B. FRASER*; N. N. SUKAR; J. A. MADDY; R. A. GALEMMO, Jr.; A. B. WEST. *Univ. of Alabama At Birmingham, Southern Res. Inst.*
- 3:00 D47 **439.07** LRRK2 regulates pro-inflammatory responses in macrophages. M. S. MOEHLE*; J. P. L. DAHER; A. B. WEST. *Univ. of Alabama At Birmingham.*
- 4:00 D48 **439.08** LRRK2 regulation of alpha-synuclein induced dopaminergic cell death. J. LIMA DAHER*; M. S. MOEHLE; D. G. STANDAERT; A. B. WEST. *Univ. of Alabama At Birmingham.*
- 1:00 D49 **439.09** Effect of pathogenic *Lrrk2* mutations on kinase activity: A comparative analysis. P. J. WEBBER*; A. B. WEST. *Univ. of Alabama At Birmingham.*
- 2:00 D50 **439.10** Ongoing development and characterization of tools and resources for Parkinson's disease research. S. S. DAS*; D. KIRIK; R. MANDEL; V. BAEKELANDT; A. MICHIELS; D. R. ALESSI; P. DAVIES; M. COOKSON; C. J. GLOECKNER; A. B. WEST; J. NICHOLS; G. ITO; T. IWATSUBO; P. TAYLOR; A. CARLETON; A. BEILINA; E. DOGGETT; K. DAVE; A. DUFOUR; M. A. BAPTISTA; J. EBERLING; M. FACHERIS; N. SHETH; A. URKOWITZ; L. VINCENT; B. K. FISKE; T. SHERER; M. FRASIER. *The Michael J. Fox Fndn. For Parkinson's Res., Lund Univ., Univ. of Florida, Katholieke Univ. Leuven, Univ. of Dundee, Natl. Inst. on Aging, Helmholtz Zentrum Muenchen, Univ. of Alabama, The Parkinson's Inst., Univ. of Tokyo, Covance.*

POSTER

439. Parkinson's Disease: LRRK2 Screens

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 D41 **439.01** • Inhibition of leucine-rich repeat kinase 2 (LRRK2) kinase activity reduces serine 935 phosphorylation in multiple models: Developing an *in vitro-in vivo* correlation of this pharmacodynamic marker. E. NEEDLE*; S. NOELL; Y. CHEN; H. SAMAROO; P. LOOS; G. LUERMAN; Y. LU; S. STEYN; B. WANG; F. ZHENG; K. FISHER; T. WAGER; J. HENDERSON; P. GALATSIS; W. D. HIRST. *Pfizer Global Res. and Develop., Pfizer Global Res. and Develop., Pfizer Global Res. and Develop., HD Biosci. Co., LTD, Pfizer Global Res. and Develop.*
- 2:00 D42 **439.02** Molecular mechanism of hypophosphorylation of LRRK2 caused by familial mutations. G. ITO*; S. KAMIKAWAJI; T. IWATSUBO. *Univ. of Tokyo.*
- 3:00 D43 **439.03** Proteomic identification of putative substrates of (G2019S) LRRK2-induced phosphorylation using a transgenic model of Parkinson's disease. C. CHEN*; K. CHIEN; Y. CHENG; H. WANG. *Chang Gung Univ. Sch. of Med., Chang Gung Univ. Sch. of Med.*
- 4:00 D44 **439.04** LRRK2 knockout rats fail to show behavioral or histological evidence of nigrostriatal dopamine depletion. N. J. THOMAS; J. H. SCHILTZ; Z. WARRAICH; L. E. IRIMATA; J. A. KLEIM*. *Arizona State Univ.*
- 3:00 D51 **439.11** Interaction of Parkinson's Disease-associated LRRK2 with mitochondrial fission and fusion factors. K. STAFSA; A. JONES; L. GLAUSER; D. J. MOORE*. *Swiss Federal Inst. of Technology, Lausanne (EPFL).*
- 4:00 D52 **439.12** • Development and characterization of radiolabeled leucine-rich repeat kinase 2 (LRRK2) inhibitors. S. NOELL; P. GALATSIS; L. ZHANG; E. NEEDLE; J. DUNLOP; T. T. WAGER; W. D. HIRST*. *Pfizer, Pfizer, Pfizer.*
- 1:00 D53 **439.13** LRRK2 phosphorylation and cell death population responses of overexpressed LRRK2 mutants in transfected primary rat cortical neurons using High Content Image Analysis (HCA). P. C. LOOS*; E. NEEDLE; H. SAMAROO; G. LUERMAN; J. HENDERSON; P. GALATSIS; K. MOU; W. HIRST. *Pfizer, Pfizer.*
- 2:00 D54 **439.14** • Moving into terra incognita - expanding the frontiers of *Lrrk2* biology using potent, selective, brain penetrant and *in vivo* active tool compounds. P. GALATSIS*; J. HENDERSON; M. M. HAYWARD; L. ZHANG; T. T. WAGER; P. R. VERHOEST; B. KORMOS; R. G. KURUMBAIL; M. C. GRIFFOR; S. NOELL; E. NEEDLE; P. LOOS; H. SAMAROO; W. D. HIRST. *Pfizer Global R&D.*

- 3:00 D55 **439.15** Characterization of two analogs of LRRK2 kinase inhibitor IN-1 *in vitro* and *in vivo* analysis. S. T. LIM*; S. SHAH; X. SU; A. CHANG; M. SHIMOJI; K. MAGUIRE-ZEISS; E. R. BIEHL; H. J. FEDEROFF. *Georgetown Univ. Med. Ctr., Georgetown Univ., Southern Methodist Univ.*
- 4:00 D56 **439.16** Inducible leucine-rich repeat kinase 2 (LRRK2) cell lines: A tool for LRRK2 functional study and screening LRRK2 Parkinson's disease therapeutics. M. SHIMOJI*; S. SHAH; E. R. BIEHL; S. LIM; A. CHANG; K. MAGUIRE-ZEISS; H. J. FEDEROFF. *Georgetown Univ. Med. Ctr., Georgetown Univ. Med. Ctr., Southern Methodist Univ.*

POSTER

440. Parkinson's Disease: Cell Models

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 D57 **440.01** Cardiolipin redistribution as an "eat-me" signal for mitophagy in Parkinson's disease models. C. T. CHU; J. JI; R. K. DAGDA*; J. JIANG; A. AMOSCATO; O. KAPRALOV; N. YANAMALA; J. KLEIN-SEETHARAMAN; K. BALASUBRAMANIAN; G. BORISENKO; Z. HUANG; C. BATY; S. WATKINS; H. BAYIR; V. E. KAGAN. *Univ. of Pittsburgh, Univ. Pittsburgh.*
- 2:00 D58 **440.02** • Analysis of RME-8 in vesicular protein trafficking, neuronal morphology and electrophysiology. L. TAPIA*; A. MILNERWOOD; C. VILARINO-GUELL; C. SZU TU; A. HUANG; D. PING LI; K. YU; S. APPEL-CRESSWELL; A. RAJPUT; M. J. FARRER. *Univ. of British Columbia, Univ. of British Columbia, Univ. of Saskatchewan and Saskatoon Hlth. Region.*
- 3:00 D59 **440.03** Mitochondrial function and morphology in primary embryonic fibroblasts and cortical neurons from PINK1-deficient mice. H. BUELER*; P. G. SULLIVAN; R. S. AKUNDI. *Univ. Kentucky.*
- 4:00 D60 **440.04** Role of Cisd2 in neurotoxin-induced death of dopaminergic neurons. L. KAO*; S. HUANG; P. WU; T. TSAI. *Natl. Yang-Ming Univ., Brain Res. Center, Natl. Yang-Ming Univ.*
- 1:00 E1 **440.05** Neuroprotectin D1 Mediates Cell Survival in an *in vitro* Model of Parkinson's disease. N. G. BAZAN*; J. M. CALANDRIA. *LSU Hlth. Sci. Cr.*
- 2:00 E2 **440.06** The neuroprotective role of mitochondrial SIRT3 in Parkinson's disease models. M. JIANG*; Q. PENG; G. WEI; J. JIN; E. VERDIN; W. DUAN. *Johns Hopkins Sch. of Med., Univ. of California at San Francisco, Univ. of California at San Francisco, Johns Hopkins University, Sch. of Medicine, Johns Hopkins University, Sch. of Medicine.*
- 3:00 E3 **440.07** Generation of autosomal recessive familial Parkinson's disease cell models using the chicken DT40 B cell line. E. MINAKAWA*; H. YAMAKADO; K. UEMURA; S. TAKEDA; R. TAKAHASHI. *Kyoto Univ. Grad. Sch. of Med., Kyoto Univ. Grad. Sch. of Med.*
- 4:00 E4 **440.08** Decline in mitochondrial function after autophagic stress in a human Parkinson's disease cell model. E. N. CRONIN-FURMAN*; P. A. TRIMMER. *Virginia Commonwealth Univ., Univ. of Virginia, Virginia Commonwealth Univ.*
- 1:00 E5 **440.09** Functional modulation of parkin via ubiquitin-like NEDD8 conjugation and its link to the formation of intracellular Lewy bodies in Parkinson's disease. K. C. CHUNG*; J. UM; K. HAN; E. IM. *Yonsei Univ.*
- 2:00 E6 **440.10** Regulation of the PINK1 signaling by a mitochondrial protein PGAM5. T. SAWADA; T. KANAO; N. HATTORI; Y. IMAI; R. TAKAHASHI*. *Dept. of Neurology, Kyoto Univ. Grad. Sch. of Med., JST, CREST, Res. Inst. for Dis. of Old Age, Grad. Sch. of Medicine, Juntendo Univ., Dept. of Neurology, Grad. Sch. of Medicine, Juntendo Univ., Dept. of Neurosci. for Neurodegenerative Disorders, Grad. Sch. of Medicine, Juntendo Univ.*
- 3:00 E7 **440.11** Cellular biology studies of moderate levels of GPR37 in dopaminergic N2a cells. E. GREGORSSON-LUNDIUS; N. STROTH; V. VUKOJEVIC; L. TERENIUS; P. SVENNINGSSON*. *Karolinska Institutet.*
- 4:00 E8 **440.12** Impaired mitochondrial dynamics in Parkinson's disease. D. SANTOS; D. M. ARDUINO; A. ESTEVES*; S. M. CARDOSO. *Ctr. for Neurosci.*
- 1:00 E9 **440.13** Altered mitochondrial protein quality control upon loss of mortalin function causes characteristic mitochondrial alterations leading to enhanced cell death in Parkinson's disease. L. F. BURBULLA; J. WESTERMEIER; J. ZHU; N. VERESHCHAGINA; D. WOITALLA; O. RIESS; T. RASSE; R. KRUGER*. *German Ctr. for Neurodegenerative Dis., Univ. of Tübingen, Univ. of Tübingen, Univ. of Tübingen, Ruhr-University Bochum, Univ. of Tübingen, Ctr. of Neurol. and Hertie Institute, Univ. of Tübingen.*
- 2:00 E10 **440.14** Orellanine, a novel bipyridyl mycotoxin, induces dopaminergic neuronal cell apoptosis by activating caspase-3-dependent pathways in N27 mesencephalic dopaminergic neurons. B. TAIWO; P. ANANTHARAM; J. LUO; V. ANANTHARAM; A. KANTHASAMY; A. KANTHASAMY; P. IMERMAN; W. RUMBEIHA*. *Iowa State Univ., Iowa State Univ.*
- 3:00 E11 **440.15** Dibutyl-AMP prevents parkin cleavage induced by the neurotoxic product of inflammation prostaglandin J2 in rat midbrain cultures: Relevance to Parkinson's disease. H. WANG*; M. FIGUEIREDO-PEREIRA. *Hunter College, Grad. Ctr. of CUNY.*
- 4:00 E12 **440.16** The endogenous product of inflammation prostaglandin J2 induces dopaminergic neuronal loss, microglia activation and progressive behavioral deficits in a murine model of Parkinson's disease. K. SHIVERS*; C. DIAZ; S. MACHLOVI; D. ORDONEZ; M. FIGUEIREDO-PEREIRA. *Hunter College, CUNY.*
- 1:00 E13 **440.17** • Differential susceptibility of central dopamine neurons to toxicant exposure is associated with changes in components of the ubiquitin proteasome pathway. M. J. BENSKEY*; K. LEE; K. LOOKINGLAND; J. GOUDREAU. *Michigan State Univ., Michigan State Univ., Michigan State Univ.*
- 2:00 E14 **440.18** Regulation of Parkin stability by deubiquitination. T. DURCAN*; E. A. FON. *Montreal Neurolog. Institute, McGill Univ., Montreal Neurolog. Institute, McGill.*
- 3:00 E15 **440.19** Parkin participates in a vesicular mitochondrial quality control pathway. G. MCLELLAND*; C. X. CHEN; V. SOUBANNIER; H. M. MCBRIDE; E. A. FON. *Montreal Neurolog. Institute, McGill Univ., Montreal Neurolog. Institute, McGill Univ.*

Mon. PM

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 E16 **440.20** Regulatory subunit-selective downregulation of PP2A by a novel E3 ubiquitin ligase complex KLHL15/Cullin3: Proteasomal degradation of B'(B56) β and its putative implications for tyrosine hydroxylase regulation. E. OBERG*; S. K. NIFOUSSI; A. GINGRAS; S. STRACK. *Univ. of Iowa, Dartmouth Col., Univ. of Iowa, Samuel Lunenfeld Res. Institute, Univ. of Toronto.*
- 1:00 E17 **440.21** Protective action of the iron binding protein lactoferrin against dopamine cell death progression. E. ROUSSEAU*; P. P. MICHEL; E. C. HIRSCH. *INSERM UMR5-975, CNRS UMR-7225, Univ. Pierre et Marie-Curie, CRICM.*
- 2:00 E18 **440.22** • Microtubule dysfunction in Parkinson's disease: The case of environmental neurotoxin 2,5-hexanedione. F. CASAGRANDE; D. CARTELLI; K. HANUSOVA; S. GOLDWURM; M. CANESI; G. PEZZOLI; G. CAPPELLETTI*. *Univ. Degli Studi Di Milano, Istituti Clinici di Perfezionamento Hosp.*
- 3:00 E19 **440.23** Elucidating mechanisms of neuroinflammation in a Parkinson's disease model. T. N. MARTINEZ*; C. G. FLANAGAN; X. HU; J. T. GREENAMYRE. *Pittsburgh Inst. For Neurodegenerative Diseases, Univ. of Pittsburgh.*
- 4:00 E20 **440.24** Submitochondrial localization of Pink1. M. A. TOCILESCU; D. BECKER; R. L. A. DE VRIES; D. M. ALESSI; C. GUARDIA-LAGUARTA; Y. LIU; J. MAY; W. VOOS; S. E. PRZEDBORSKI*. *Columbia Univ., Univ. Bonn.*
- 1:00 E21 **440.25** The mitochondrial processing peptidase regulates PINK1 processing, import and Parkin recruitment. K. GRENIER*; A. W. GREENE; M. KONTOGIANNEA; S. NOBILE; A. ELAGOZ; E. A. FON. *Montreal Neurolog. Inst., Montreal Neurolog. Institute, McGill.*
- 2:00 E22 **440.26** Expression of SK3 and GIRK2 potassium channels as markers of susceptibility in embryonic midbrain dopamine neurons. A. JENKINS; K. HYMAN; H. M. BELALCAZAR*; H. HERNANDEZ; G. D. DE ERAUSQUIN. *Univ. of South Florida.*
- 3:00 E23 **440.27** L-Dopa toxicity and oxidative stress in serotonin neuron culture. B. J. STANLEY*; B. K. YAMAMOTO. *Univ. of Toledo Med. Ctr.*
- 4:00 E24 **440.28** • High-throughput screening for small molecule MEF2 activators that stimulate differentiation of human neural stem cells into dopaminergic neurons. S. F. CHAN*; S. SANCES; H. J. LEE; E. G. CHO; J. D. ZAREMBA; S. OKAMOTO; M. TALANTOVA; P. BUSHWAY; M. TSUDA; R. AMBASUDHAN; N. DOLATABADI; A. TERSKIKH; S. TU; S. R. MCKERCHER; E. MASLIAH; M. MERCOLA; N. NAKANISHI; S. A. LIPTON. *Sanford-Burnham Med. Res. Inst., Univ. of California San Diego.*
- 2:00 E26 **441.02** Parkinson's Disease related Leucine-rich repeat kinase 2 (LRRK2) regulates neuronal morphology and function. L. PARISIADOU*; C. XIE; C. SGOBIO; G. LUI; J. YU; D. LOVINGER; H. CAI. *NIA, NIH, NIAAA, NIA.*
- 3:00 E27 **441.03** Development of conditional transgenic mice with selective expression of human R1441C LRRK2 in the nigrostriatal dopaminergic pathway. D. J. MOORE; M. KANNAN; E. TSICA*. *École Polytechnique Fédérale De Lausanne.*
- 4:00 E28 **441.04** • Use of BacMam technology to express full-length LRRK2 and to profile inhibitors using cell-based and biochemical assays. S. HERMANSON*; C. LEBAKKEN; L. REICHLING; S. RIDDLE; K. BI. *Life Technologies.*
- 1:00 E29 **441.05** Masl1 regulation - Implications for LRRK2 function in Parkinson's disease? S. DIHANICH*; L. CIVIERO; C. MANZONI; E. GREGGIO; P. A. LEWIS. *UCL, Univ. of Padova.*
- 2:00 E30 **441.06** • The pathophysiology of Parkinson's disease: Lrrk2, neurotransmission and synaptic maintenance. D. A. BECCANO-KELLY*; A. M. MILNERWOOD; L. TAPIA; M. VOLTA; P. CHOU; C. VILARINO-GUELL; H. MELROSE; L. A. RAYMOND; M. J. FARRER. *Univ. of British Columbia, Mayo Clin., Univ. of British Columbia.*
- 3:00 E31 **441.07** Biochemical and pathological characterisation of alpha-synuclein in LRRK2 associated Parkinson's disease. A. MAMAI*; P. LEWIS; C. MANZONI; A. LEES; D. MOORE; R. BANDOPADHYAY. *UCL Inst. of Neurol., Rita Lila Weston Inst. of Neurolog. Studies, UCL Inst. of Neurol., Ecole Polytechnique Fédérale de Lausanne.*
- 4:00 E32 **441.08** *Drosophila* suppressor/enhancer screen to identify novel LRRK2 interactors. S. ABUAISH*; P. C. MARCOGLIESE; E. ABDEL-MESSIH; G. KABBACH; G. LI; R. SLACK; M. E. HAQUE; K. VENDEROVA; D. PARK. *Univ. of Ottawa, American Univ. of Beirut, Univ. of the Pacific.*
- 1:00 E33 **441.09** Human LRRK2 is a positive regulator of cell Autophagy. S. SAHA*; V. GOWDA; L. LIU-YESUCEVITZ; B. WOLOZIN. *Boston Univ., Boston Univ. Sch. of Med.*
- 2:00 E34 **441.10** Ultrastructural study of axonal spheroids in a BAC transgenic LRRK2(R414G) mouse model of Parkinson's disease. A. P. TAGLIAFERRO*; T. KAREVA; N. KHOLODILOV; R. E. BURKE. *Dept. of Neurology, Columbia Univ.*
- 3:00 E35 **441.11** G2019S-LRRK2 transgenic mice display exacerbated mptp-mediated neurotoxicity. S. S. KARUPPAGOUNDER*; Y. XIONG; S. A. ANDRABI; Y. LEE; I. MARTIN; S. BRAHMACHARI; T. M. DAWSON; V. L. DAWSON. *Johns Hopkins Univ. Sch. of Med., Inst. for Cell Engin. Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Inst. for Cell Engin. Johns Hopkins Univ. Sch. of Med.*
- 4:00 E36 **441.12** Alterations in stimulation-evoked dopamine release in mice carrying a R1441G mutation in the LRRK2 gene. D. B. LESTER*; A. K. PANI; C. D. BLAHA; R. J. SMEYNE. *St Jude Children's Res. Hosp., Univ. of Memphis.*
- 1:00 E37 **441.13** LRRK2 modulates Notch signaling through the endosomal pathway. Y. IMAI*; T. KANAO; Y. KOBAYASHI; K. UEMURA; T. OHTSUKA; R. KAGEYAMA; N. HATTORI; R. TAKAHASHI. *Juntendo Univ., Juntendo Univ., Kyoto Univ.*

POSTER

441. Parkinson's Disease: LRRK2 Cellular Mechanisms

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 E25 **441.01** LRRK2 kinase activity mediates toxic interactions between genetic mutation and oxidative stress in a *Drosophila* model: suppression by curcumin. W. SMITH*; D. YANG; T. LI; Z. LIU; N. ARBEZ; J. YAN; T. H. MORAN; C. A. ROSS. *Univ. of Maryland Sch. of Pharm., Univ. of Maryland Sch. of Pharmacy, Baltimore, MD, USA 21201, Univ. of Maryland Sch. of Pharm., Johns Hopkins Univ. Sch. of Med., Xi'an Jiaotong Univ. Sch. of Med.*

- 2:00 E38 **441.14** Novel functional phenotypes in induced pluripotent stem cell-derived neurons from patients with LRRK2 G2019S mutation. S. K. MAK*; J. HESLEY; X. JIANG; A. Y. HUANG; M. VANGIPURAM; J. W. LANGSTON; B. SCHUELE. *The Parkinson's Inst., Mol. Devices, LLC, The Parkinson's Inst.*
- 3:00 E39 **441.15** Mitochondrial DNA damage in LRRK2 genetic models of Parkinson's disease. L. H. SANDERS*; O. COOPER; R. SUNDARARAJAN; J. W. LANGSTON; B. SCHÜLE; O. ISACSON; J. T. GREENAMYRE. *Univ. Pittsburgh, Neuroregeneration Institute, McLean Hospital/Harvard Medical Sch., The Parkinson's Inst.*
- 4:00 E40 **441.16** Investigating the role of LRRK2 in autophagy: Implications for Parkinson's disease. C. MANZONI*; S. DIHANICH; A. MAMAI; R. BANDOPADHYAY; S. TOOZE; P. LEWIS. *UCL - Univ. Col. London, UCL - Univ. Col. London, Cancer Res. UK.*

POSTER

442. Other Neurodegenerative Disorders I

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 E41 **442.01** TMEM106B, the genetic risk factor for frontotemporal dementia, has altered patterns of neuronal expression in progranulin-mutation-associated disease. J. I. BUSCH*; M. MARTINEZ-LAGE; M. GROSSMAN; V. M. Y. LEE; J. Q. TROJANOWSKI; A. S. CHEN-PLOTKIN. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 2:00 E42 **442.02** Role of DNA dynamics in brain disorders. N. M. TAYLER; J. KOSAGISHARAF*. *INDICASAT-AIP, CFTRI, INDICASAT-AIP.*
- 3:00 E43 **442.03** Microglia show a different cytokine response pattern than astrocytes after interaction with HIV-infected monocytoid cells: Specifying the bystander hypothesis in Neuro-AIDS. B. AMBROSIO; S. R. FAISSNER; B. GREWE; B. TIPPLER; M. D. MARK*; K. UEBERLA; R. GOLD; T. GRUNWALD; A. CHAN. *Ruhr Univ. Bochum, Ruhr Univ. Bochum, Ruhr Univ. Bochum.*
- 4:00 E44 **442.04** ● Involvement of vascular insult in the motor neuron death of neurolept rat model. K. KAWAGUCHI; K. KUSAMA-EGUCHI*. *Nihon Univ. Sch. of Pharm.*
- 1:00 E45 **442.05** Genetic regulation of TMEM106B, the risk gene for frontotemporal dementia, by the miR-132/212 cluster. M. D. GALLAGHER*; A. CHEN-PLOTKIN; J. BUSCH. *Univ. of Pennsylvania.*
- 2:00 E46 **442.06** The FTLD-FUS marker Transportin1 is incorporated into stress granules that may act as inclusion precursors. J. H. BRELSTAFF*; A. MAMIAS; T. LASHLEY; J. L. HOLTON; A. LEES; M. N. ROSSOR; T. REVESZ; R. BANDOPADHYAY. *Inst. of Neurol., UCL Inst. of Neurol., UCL Inst. of Neurol., UCL Inst. of Neurol.*
- 3:00 E47 **442.07** Wolfram 1 deficiency alters mitochondrial phenotype in cortical neurons. M. LIIV; M. CAGALINEC; E. VASAR; D. SAFIULINA; V. CHOUBEY; M. KUUM; A. VAARMANN; V. VEKSLER; A. KAASIK*. *Univ. of Tartu, Univ. of Tartu, INSERM U-769.*
- 4:00 E48 **442.08** The Importance of continuous training in the treatment of cerebral palsy. S. ZHANG*; H. MA. *Suzhou Univ., Ctr. Rehabil. for Disabled Children.*

- 1:00 E49 **442.09** Enzyme-Linked ImmunoSpot (ELISPOT) assay is a novel tool to study secretion of cytokines from astrocytes and microglia *in vitro*. A. E. KALYUZHNY*; J. HAGEN; M. GRAHEK; A. PTAK; J. P. HOCHINS; C. LIVINGSTON. *R&D Systems, Inc.*
- 2:00 E50 **442.10** Reticular calcium precedes mitochondrial dysfunction in axonal degeneration. R. M. VILLEGAS SILVA*; F. A. COURT. *Univ. Catolica.*
- 3:00 E51 **442.11** TMEM106B, the risk gene for frontotemporal dementia, is localized to late endosomes/lysosomes and affects progranulin pathways. A. S. CHEN-PLOTKIN*; E. BILL; J. BUSCH; T. UNGER; L. VOLPICELLI-DALEY; L. KWONG; V. LEE. *Univ. of Pennsylvania Dept of Neurol., Univ. of Pennsylvania.*
- 4:00 E52 **442.12** Distribution, transport and metabolism of L-BMAA in the rodent brain. G. E. KISBY*; C. E. GARNER; C. WEGERSKI; M. DOYLE-EISELE; J. F. LUCAK; J. MCDONALD; J. M. SANDERS; R. KAYTON; P. S. SPENCER. *Western Univ. of Hlth. Sci., Lovelace Resp. Res. Inst., Natl. Toxicology Program, Oregon Hlth. & Sci. Univ.*
- 1:00 E53 **442.13** ● Upregulation of vascular endothelial growth factor receptor-3 in the spinal cord of Lewis rats with experimental autoimmune encephalomyelitis. J. PARK; Y. SHIN; J. CHO; J. CHOI; S. JEUN; J. CHA; M. LEE*. *Catholic Univ. Med. Col., Catholic Univ. Med. Col.*
- 2:00 E54 **442.14** ● ▲ Comparison of toxoplasma gondii cyst localization in mouse neural tissue. L. N. BENEDICT; L. J. KNOLL; K. J. HOOK*; B. EVANS; J. GARVON. *Lake Superior State Univ., Univ. of Wisconsin - Madison.*
- 3:00 E55 **442.15** Delivery of a therapeutic molecule to the brain for the treatment of neurodegenerative diseases: AAV-5-GDNF produced by a GMP-compliant and scalable production platform results in a highly efficient gene therapy vector. B. BLITS*; A. BJORKLUND; D. KIRIK; M. EMBORG; M. A. F. SONNEMANS; S. HERMENING; H. PETRY. *Uniqure, Lund Univ., Wisconsin Natl. Primate Res. Center, Univ. of Wisconsin-Madison.*
- 4:00 E56 **442.16** The effects of short-term hyperglycemia on sensorimotor axon integrity. V. K. HAFTEL*; K. NUMA; J. DE SHIELDS; R. BUTLER; B. N. MASON. *Morehouse Col., Morehouse Col.*
- 1:00 E57 **442.17** Molecular consequences of acute BDNF withdrawal in the hippocampus. A. MARIGA*; S. D. GINSBERG; J. ZAVADIL; M. V. CHAO. *New York Univ., New York Univ. Sch. of Med., New York Univ. Sch. of Med., New York Univ. Sch. of Med.*
- 2:00 E58 **442.18** White matter degeneration in epm1 - a translational dti study in patients and cstb-deficient mice. O. H. MANNINEN*; P. KOSKENKORVA; K. LEHTIMÄKI; T. LAITINEN; S. TEGELBERG; H. KALIMO; R. KÄLVIÄINEN; O. KOPRA; O. GRÖHN; R. VANNINEN; A. LEHESJOKI. *Folkhälsan Inst. of Genet. and Neurosci. Center, Univ. of Helsinki, Kuopio Univ. hospital, Univ. of Eastern Finland, Univ. of Turku, Kuopio Univ. hospital.*
- 3:00 E59 **442.19** ▲ The role of the neuro-glio-vascular unit in brain diseases. A. BARZILAI*. *Tel Aviv Univ.*
- 4:00 E60 **442.20** Macroautophagy dysfunction and protein aggregate formation in lysosomal storage disease. M. C. MICSENYI*; J. SIKORA; G. STEPHNEY; K. DOBRENIS; S. U. WALKLEY. *The Albert Einstein Col. of Med.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 E61 **442.21** The effects of postural position on physiological tremor in multiple sclerosis. S. MORRISON*; J. J. SOSNOFF; B. M. SANDROFF; J. H. PULA; R. W. MOTL. *Old Dominion Univ., Univ. of Illinois, Univ. of Illinois Urbana-Champaign, Univ. of Illinois.*
- 2:00 E62 **442.22** Different expression patterns of cathepsin C/dipeptidyl peptidase I in normal, pathological and aged central nervous system of mice. M. KOIKE*; Y. UCHIYAMA. *Juntendo Univ. Sch. Med.*
- 3:00 E63 **442.23** Human iPSC derived neurons as a model system to study expression of Tau isoforms. H. CHEN*; D. LESTER-ZEINER; R. YIN; W. CHANG; Q. CHENG; D. IMMKE; S. WANG. *Amgen, Amgen, INC, Amgen, INC.*
- 4:00 E64 **442.24** Control of oligomerization and fibrillation of amyloidogenic peptide ABri by manipulation of structural and oxidative properties. L. W. NESGAARD; K. TODD; A. ROSTAGNO; J. GHISO*. *New York Univ. Med. Ctr.*
- 1:00 E65 **442.25** • Exacerbation of prion disease pathology in antioxidant protein peroxiredoxin 6 knockout animals. A. A. ASUNI; M. GURIDI ORMAZABAL; S. SANCHEZ; M. SADOWSKI*. *New York Univ. Sch. of Med.*
- 2:00 E66 **442.26** The N-terminus of the prion protein fused to a GPI-anchor (NGPI) induces cerebellar degeneration. P. DAMETTO*; C. BRIDEL; T. O'CONNOR; U. S. HERRMANN; D. MCHUGH; P. SONDEREGGER; A. AGUZZI. *Univ. Hosp. Zurich, Univ. Hosp. Genève, Univ. of Zurich.*
- 3:00 E67 **442.27** Early dysfunction of the ubiquitin-proteasome system correlates with disease-associated PrP in prion-infected mice. C. MCKINNON*; R. ANDRÉ; J. MOONGA; S. BRANDNER; J. COLLINGE; S. TABRIZI. *UCL Inst. of Neurol., UCL Inst. of Neurol.*
- 4:00 E68 **442.28** Precipitation efficiency of prions influenced by polyoxometalate speciation. D. J. LEVINE*; L. E. FALESE; J. STÖHR; H. WILLE; S. B. PRUSINER; J. R. LONG. *Univ. of California, Berkeley, Univ. of California, San Francisco, Univ. of California, San Francisco.*

POSTER

443. Autism: Genetic and Animal Models II

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 F1 **443.01** Autism related gene expression alteration in early postnatal and adult MAO A knock out mice. K. CHEN*; Y. CHEN; S. FLINK; B. TABAKOFF; J. C. SHIH. *Univ. South Calif, USC, Univ. of Colorado Denver, USC, USC.*
- 2:00 F2 **443.02** • Glial modulation with Ibudilast (MN166) attenuates neuroinflammation and autistic-like behaviors in the Terbutaline model of autism spectrum disorder (ASD) in rats. K. RODGERS; F. BERCUM; K. JOHNSON; L. WATKINS; D. S. BARTH*. *Univ. of Colorado, MediciNova.*
- 3:00 F3 **443.03** Common variant in autism risk gene, RBFox1, is associated with altered temporal lobe structure in 694 healthy young adults. D. TEHRANI*; O. KOHANNIM; N. JAHANSHAD; E. L. DENNIS; K. L. MCMAHON; G. I. DE ZUBICARAY; S. E. MEDLAND; G. W. MONTGOMERY; N. G. MARTIN; M. J. WRIGHT; P. M. THOMPSON. *UCLA Lab. of Neuro Imaging, UCLA, Univ. of Queensland, Univ. of Queensland, Queensland Inst. of Med. Res., UCLA.*
- 4:00 F4 **443.04** ▲ Comparative behavioral studies between rat models of Schizophrenia and Autism. D. LA MENDOLA*; H. MARKRAM; K. MARKRAM. *EPFL.*
- 1:00 F5 **443.05** • Multiple knockout rat lines modeling autism. G. ZHAO*; R. HENRY; L. LITTLE; A. CHAMBERS; A. MCCOY; Y. WU; J. WARREN; A. BROWN; D. JI; C. MCGREGOR; J. BOOKS; K. M. GAMBER; E. WEINSTEIN; X. CUI. *Sigma-Aldrich, SAGE Labs.*
- 2:00 F6 **443.06** ▲ Visual cortical network dysfunction in the neuroligin-3 model of autism spectrum disorder. O. E. IGIESUOROBO*; P. GOLSHANI. *UNIVERSITY OF CALIFORNIA, LOS ANGELES, DAVID GEFKEN SCHOOL OF MEDICINE, UCLA.*
- 3:00 F7 **443.07** Prenatal exposure to valproic acid alter dendritic morphology in limbic regions. M. E. BRINGAS*; T. A. LÓPEZ; F. N. CARVAJAL; M. ATZORI; G. FLORES. *Benemérita Univ. Autónoma De Puebla, Univ. of Texas at Dallas.*
- 4:00 F8 **443.08** A comprehensive behavioural test battery for autism-like symptoms in the valproic acid rat model. D. A. GILL*; A. PÉREZ-GÓMEZ; R. A. TASKER. *Univ. of Prince Edward Island, Univ. of Prince Edward Island.*
- 1:00 F9 **443.09** Population activity in the motor cortex of the MeCP2 duplication mouse. B. SUTER*; J. F. H. MEYER; R. T. ASH; H. Y. ZOGBHI; S. M. SMIRNAKIS. *Baylor Coll Med., Baylor Col. of Med., Baylor Col. of Med.*
- 2:00 F10 **443.10** High throughput mRNA and DNA methylation sequencing in autism brains. C. HARMELINK*; S. GUPTA; D. E. ARKING; A. B. WEST. *Univ. of Alabama At Birmingham, Johns Hopkins.*
- 3:00 F11 **443.11** A window into disrupted neurodevelopment and cognitive impairment: Behavioral characterization of the Met-Dlx5/6 mouse. R. F. MARTIN; E. M. POWELL*. *Univ. Maryland, Baltimore.*
- 4:00 F12 **443.12** Influence of pediatric vaccines on CNS development and behavior in the rhesus macaque. B. GADAD*; W. LI; B. CURTIS; V. YUTUC; C. FERRIER; G. SACKETT; K. A. YOUNG; S. SACHSENMAIER; L. HEWITSON; D. GERMAN. *UT Southwestern Med. Ctr., Washington Natl. Primate Res. Ctr., Texas A&M Hlth. Sci. Ctr., Johnson Ctr. for Child Hlth. & Develop.*
- 1:00 F13 **443.13** T-cell development and potential effects on behavior in human sAPP α transgenic mice exhibiting autistic behavior. A. R. BAILEY*; H. HOU; D. OBREGON; J. TIAN; Y. ZHU; Q. ZOU; W. V. NIKOLIC; M. BENGSTON; T. MURPHY; J. TAN. *Rashid Lab. For Developmental Neurobiology, Silver Child Develop. Center, Mors, Rothman Ctr. for Neuropsychiatry, All Children's Hospital, Morsani Col. of Medicine, Univ. of South Florida, Neuroimmunology Laboratory, Morsani Col. of Medicine, Univ. of South Florida.*
- 2:00 F14 **443.14** Gastrointestinal symptoms and probiotic treatment in a mouse model of an autism risk factor. E. HSIAO*; S. W. MCBRIDE; S. HSIEN; J. CHOW; S. K. MAZMANIAN; P. H. PATTERSON. *Caltech.*
- 3:00 F15 **443.15** Neuroimmune changes in a mouse model of the maternal infection risk factor for schizophrenia and autism. P. H. PATTERSON*; E. Y. HSIAO; S. W. MCBRIDE; J. CHOW; K. A. GARBETT; S. KALMAN; K. MIRNICS; S. K. MAZMANIAN. *Caltech, Vanderbilt.*

- 4:00 F16 **443.16** ● Neural cell adhesion and autism risk genes are associated with hippocampal volume on MRI in elderly subjects. O. KOHANNIM*; D. P. HIBAR; D. S. TEHRANI; E. L. DENNIS; N. JAHANSHAD; A. W. TOGA; C. R. JACK JR; M. W. WEINER; P. M. THOMPSON. *UCLA Lab. of Neuroimaging, UCLA, Mayo Clin., UCSF, DVA.*
- 1:00 F17 **443.17** Pten haploinsufficiency increases immobility on the tail suspension test of depression. A. E. CLIPPERTON-ALLEN*; D. T. PAGE. *The Scripps Res. Inst.*
- 2:00 F18 **443.18** COMT in the medial prefrontal cortex is a determinant of the developmental maturation of working memory capacity in mice. N. HIROI*; G. KANG; K. TANIGAKI; G. DURAN-TORRES; P. MÄNNISTÖ; T. HIRAMOTO. *Albert Einstein Col. Med., Shiga Med. Ctr. Res. Inst., Univ. of Helsinki.*
- 3:00 F19 **443.19** Ultrastructural changes in the CA1 of Shank3-deficient mice. N. UPPAL*; L. MINWALLA; R. PURI; O. BOZDAGI; W. G. JANSSEN; D. L. DICKSTEIN; J. D. BUXBAUM; P. R. HOF. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*
- 4:00 F20 **443.20** Novel role of STAT1 immune signaling in cortical plasticity and autism. I. NAGAKURA*; A. VAN WART; D. TROPEA; B. CRAWFORD; M. SUR. *MIT.*
- 1:00 F21 **443.21** Cerebellar learning in mouse models of autism. A. D. KLOTH*; L. A. LYNCH; A. LI; R. D. JONES; S. G. CONNOLLY; M. A. BANGASH; O. PEÑAGARIKANO; P. F. WORLEY; D. H. GESCHWIND; S. S. WANG. *Princeton Univ., Princeton Univ., Johns Hopkins Univ., UCLA.*
- 2:00 F22 **443.22** eIF4E transgenic mice as a novel animal model of autism spectrum disorders. E. SANTINI*; T. N. HUYNH; A. MACASKILL; R. DAVIDE; P. PHILIPPE; A. G. CARTER; H. KAPHZAN; E. KLANN. *New York Univ., New York Univ., Univ. of California, Univ. de la Mediterranee.*
- 3:00 F23 **443.23** D-cycloserine ameliorates 50kHz ultrasonic vocalization deficits during social interaction in a valproic acid model of autism. K. A. WELLMANN; S. M. MOONEY*. *Univ. of Maryland Med. Ctr., Univ. of Maryland Med. Ctr.*
- 4:00 F24 **443.24** RNA sequencing in iPSC-derived neurons identifies gene expression changes associated with 22q11.2 microdeletion syndrome. Y. TIAN*; S. P. PASCA; J. OU; A. K. KRAWISZ; J. A. BERNSTEIN; J. L. RAPOPORT; J. HALLMAYER; S. HORVATH; M. PELLEGRINI; R. DOLMETSCH; D. H. GESCHWIND. *David Geffen Sch. of Medicine, Univ. of California, Los Angeles, UCLA, Stanford Univ. Sch. of Medicine, Stanford Univ., Stanford Univ., Natl. Inst. of Mental Hlth., Stanford Univ., David Geffen Sch. of Medicine, Univ. of California, Los Angeles, David Geffen Sch. of Medicine, Univ. of California, Los Angeles.*
- 1:00 F25 **443.25** Impaired synaptic plasticity precedes morphological defects in a Pten mouse model of autism. M. J. GERTNER*; K. TAKEUCHI; J. ZHOU; L. F. PARADA; M. V. L. BENNETT; R. S. ZUKIN. *Albert Einstein Col. of Med., Albert Einstein Col. of Med., UT Southwestern Med. Ctr.*

POSTER

444. Autism: Environment and Pathology II

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 F26 **444.01** ▲ Brief postnatal citalopram exposure alters anterior commissure integrity in adult rats. R. L. CLARK; L. ALZGHOUL; R. D. DARLING; N. KHATRI; M. A. LEA*; K. L. SIMPSON; I. A. PAUL; R. C. S. LIN. *Millsaps Col., U of Miss Med. Ctr., U of Miss Med. Ctr., U of Miss Med. Ctr., U of Miss Med. Ctr.*
- 2:00 F27 **444.02** Sex-specific effect of serotonin on cortical neuron development *in vitro*. Y. PAN*; L. FAN; A. KAZAKI; K. SIMPSON; Z. CAI; R. C. S. LIN; L. TIEN. *Univ. Mississippi Med. Ctr., Fu Jen Catholic Univ.*
- 3:00 F28 **444.03** Early life serotonin levels dysregulation effect on the interhemispheric connectivity in rats. L. ALZGHOUL*; R. D. DARLING; N. KHATARI; K. L. SIMPSON; I. A. PAUL; R. C. S. LIN. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr.*
- 4:00 F29 **444.04** Perinatal serotonin autoreceptor stimulation accounts for the developmental programming due to selective serotonin reuptake inhibitor (SSRI) exposure: Possible relevance to Autistic Spectrum Disorders. I. A. PAUL*; K. L. SIMPSON; R. C. S. LIN; N. KHATRI. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr.*
- 1:00 F30 **444.05** Intracerebroventricular administration of enteric short chain fatty acids in rodents induces neuropathological, oxidative stress and lipid/acylcarnitine profiles consistent with autism spectrum disorder. D. F. MACFABE*; R. THOMAS; L. TICHENOFF; F. BOON; F. POSSMAYER; K. OSSENKOPP. *Univ. Western Ontario, Univ. of Western Ontario.*
- 2:00 F31 **444.06** Auditory training restores serotonergic and cortical inhibitory circuitry after neonatal antidepressant exposure in rats. Y. LU*; X. ZHOU; L. ALZGHOUL; R. DARLING; K. SIMPSON; M. M. MERZENICH; R. C. S. LIN. *Univ. of Mississippi Med. Ctr., East China Normal University, Univ. of Mississippi Med. Ctr., Univ. of California, San Francisco.*
- 3:00 F32 **444.07** Intracerebroventricular and systemic administration of enteric short chain fatty acids in rodents induces behavioural and electrographic findings consistent with autism spectrum disorder. K. OSSENKOPP*; K. FOLEY; F. BOON; L. TICHENOFF; S. SHULTZ; M. KAVALIERS; D. MACFABE. *Univ. Western Ontario, Kilee Patchell-Evans Autism Res. Group, Univ. of Western Ontario.*
- 4:00 F33 **444.08** Sex differences in locomotor activity and social interaction following prenatal administration of the enteric bacterial fermentation product, propionic acid, in adolescent rats. K. A. FOLEY*; D. F. MACFABE; M. KAVALIERS; K. OSSENKOPP. *Univ. of Western Ontario, Univ. of Western Ontario.*
- 1:00 F34 **444.09** Time course of both single and repeated intracerebroventricular infusions of Propionic Acid on Behavioural, Cognitive, and Neuropathological changes in rats: Further development of a novel rodent model of Autism. S. HOLBROOK*; J. R. MEPHAM; F. BOON; R. TAYLOR; R. THOMAS; M. I. KAVALIERS; K. OSSENKOPP; D. F. MACFABE. *Univ. of Western Ontario, Kilee-Patchell Evans Autism Res. Group, Univ. of Western Ontario.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 F35 **444.10** Altered node of Ranvier organization in interhemispheric axons after brief postnatal citalopram exposure in adult rats. R. D. DARLING*; L. ALZGHOUL; N. KHATRI; Y. F. LU; K. L. SIMPSON; I. A. PAUL; R. C. S. LIN. *U of Miss Med. Ctr., U of Miss Med. Ctr., U of Miss Med. Ctr., U of Miss Med. Ctr.*
- 3:00 F36 **444.11** Polymorphic genes within the FMR1 pathway and social phenotypes in free-ranging rhesus macaques. H. SHERWIN*; L. J. N. BRENT; J. E. HORVATH; J. GONZALEZ-MARTINEZ; A. RUIZ-LAMBIDES; A. G. ROBINSON; J. H. P. SKENE; M. L. PLATT. *Duke Univ., Univ. of Puerto Rico.*
- 4:00 F37 **444.12** Morphological correlates of synaptic plasticity in the Shank3-deficient mouse. D. PAPAPETROU*; O. BOZDAGI; W. G. JANSSEN; D. L. DICKSTEIN; J. D. BUXBAUM; P. R. HOF. *Mount Sinai Sch. of Med., Mount Sinai School of Medicine, Mount Sinai School of Medicine.*
- 1:00 F38 **444.13** Mice lacking the autism-related protein ProSAP2/Shank3 show region specific glutamatergic imbalances at synapses. A. JANSSEN*; M. J. SCHMEISSER; A. M. GRABRUCKER; J. BOCKMANN; T. M. BOECKERS. *Ulm Univ., Ulm Univ., Ulm Univ.*
- 2:00 F39 **444.14** Oxotremorine reduces repetitive grooming the BTBR mouse model of Autism. D. A. AMODEO*; J. A. SWEENEY; M. E. RAGOZZINO. *Univ. Illinois, Chicago, Univ. of Texas Southwestern Med. Sch., Univ. of Illinois at Chicago.*
- 3:00 F40 **444.15** Genetic variations in dopamine-related gene expression influences motor skill learning in mice. Y. QIAN*; M. CHEN; H. FORSSBERG; R. DIAZ HEIJTZ. *Karolinska Institutet.*
- 4:00 F41 **444.16** Effects of early life stressors on behavior and brain structure. K. C. RILETT*; J. K. Y. LAI; R. N. MACKENZIE; J. ELLEGOOD; J. P. LERCH; J. A. FOSTER. *McMaster Univ., McMaster Univ., Hosp. for Sick Kids.*
- 1:00 F42 **444.17** • Animal model integration to AutDB, a genetic database for autism. A. KUMAR*; I. MENASHE; W. PEREANU; S. BANERJEE-BASU. *Mindspec Inc.*
- 2:00 F43 **444.18** Celf6 knockout mice as a model for resistance to change in autism. S. E. MALONEY*; D. F. WOZNAK; J. D. DOUGHERTY. *Washington Univ. Med. Sch., Washington Univ. Med. Sch.*
- 3:00 F44 **444.19** Sex-based differences in hippocampal neurogenesis in the GAP43-deficient mouse model of Autism Spectrum Disorders (ASD). S. E. LATCHNEY, *A. SANKARARAMAN, I. B. MASIULIS, K. J. ZACCARIA, D. C. LAGACE, C. M. POWELL, J. S. MCCASLAND, A. J. EISCH; *UT Southwestern, Dallas, TX; SUNY Upstate, Syracuse, NY; Univ. of Ottawa, Ottawa, ON, Canada.*
- 4:00 F45 **444.20** Excitatory/inhibitory imbalance in the mPFC of the Cntnap2 mouse model of autism. M. T. LAZARO*; O. PEÑAGARIKANO; H. DONG; D. H. GESCHWIND; P. GOLSHANI. *Univ. of California, Univ. of California.*
- 1:00 F46 **444.21** Impaired executive function in 22q11DS mouse model of Autism Spectrum Disorders. H. L. H. RUTZ; L. A. ROTHBLAT*; D. W. MEECHAN; T. M. MAYNARD; A. S. LAMANTIA. *George Washington Univ., George Washington Univ.*
- 2:00 G1 **444.22** High-throughput sequencing of Wnt signaling genes in ASD patients reveals rare deleterious variants in DIXDC1, WNT1 and DVL1. P. E. MARTIN*; C. ERDMAN; E. LAM; P. KWOK; S. P. HAMILTON; B. N. R. CHEYETTE. *UCSF.*
- 3:00 G2 **444.23** TSC-1 deletion results in abnormal positioning of cortical neurons. R. L. COX; F. CALDERON DE ANDA; M. CONSTANTINE-PATON; A. YOSHII*. *MIT.*
- 4:00 G3 **444.24** • Autism-associated serotonin transporter variant disrupts thalamocortical axon development. C. MULLER*; A. BONNIN; R. D. BLAKELY; J. VEENSTRA-VANDERWEELE. *Vanderbilt Univ., USC, Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*
- 1:00 G4 **444.25** • Expression of anxiety-related behaviour in an animal model of self-injury. V. X. YUAN*; D. P. DEVINE. *Univ. of Florida, Univ. of Florida.*
- 2:00 G5 **444.26** Tactile stimulation improves anatomical pathology but not behaviour in rats prenatally exposed to valproic acid. R. L. GIBB*; S. K. RICHARDS; A. NAKAHASHI; S. M. PELLIS; B. HIMMLER; B. E. KOLB. *Univ. Lethbridge.*
- 3:00 G6 **444.27** • Mitochondrial dysfunction and oxidative stress in temporal lobe of autistic brain. G. TANG*; S. KUO; J. GOLDMAN; D. SULZER. *Columbia University, Dept of Neurol., Columbia Univ.*
- 4:00 G7 **444.28** ▲ Developmental exposure to lead (Pb+2) results in social interaction deficits in D. melanogaster. J. F. ORTIZ-CARPENA*; A. VÁZQUEZ-MONTES; A. HERNÁNDEZ; D. VÉLEZ-COSTAS; G. GALINDEZ-CINTRÓN; S. PEÑA DE ORTIZ; H. G. ORTIZ-ZUAZAGA. *Univ. of Puerto Rico, Rio Piedras Campus, Univ. of Puerto Rico, Rio Piedras Campus, Univ. of Puerto Rico, Rio Piedras Campus.*
- 1:00 G8 **444.29** • Abnormalities in cerebellar Purkinje cells in autism model rats induced by thalidomide. T. OHKAWARA*; A. OYABU; T. KATSUYAMA; A. SAKURAMOTO; M. IDA-ETO; Y. TASHIRO; M. NARITA. *Mie Univ.*

POSTER

445. Fragile X II

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 G9 **445.01** • Fragile X mental retardation protein regulates local BDNF synthesis in dendrites. J. AN*; H. XU; X. FU; F. VANEVSKI; N. GAL-EDD; B. XU. *Georgetown Univ. Med. Ctr.*
- 2:00 G10 **445.02** dFMR1 regulates heterochromatic gene silencing in the *Drosophila* nervous system. Y. CHANG*; Y. A. SAVVA; R. A. REENAN. *Brown Univ., Brown Univ.*
- 3:00 G11 **445.03** ▲ Role of ERK1/2 and GSK3 β in memory formation of Fmr1 knockout mice. M. GREEN*; S. CHAKI; J. MEHTA; C. L. COX; D. V. VENKITARAMANI. *Beckman Inst., Mol. and Integrative Physiol., Neurosci. Program.*
- 4:00 G12 **445.04** • Characterization of the effects of the S6K1 inhibitor PF 4708671 on fragile x syndrome model mice. A. BHATTACHARYA*; A. CHOWDHURY; A. C. ALVAREZ-DIEPPA; D. G. SMITH; E. KLANN. *Ctr. For Neural Science, New York Univ., Pfizer Worldwide Res. and Development, CT, USA.*
- 1:00 G13 **445.05** • Chronic pharmacological inhibition of p21-activated kinase reverses dendritic spine abnormalities in Fmr1 knock-out mouse model of Fragile-X Syndrome. C. S. REX*; S. DURON; T. BANKE; D. CAMPBELL. *Afraxis Inc., Afraxis Inc.*

- 2:00 G14 **445.06** Network mechanisms for sensory hyperexcitability in fragile x. M. ARNETT*; C. HUANG; H. VON RICHTHOFEN; G. FISONE; P. KRIEGER; T. CELIKEL. *USC, Karolinska Inst.*
- 3:00 G15 **445.07** Action potential back-propagation into CA1 hippocampal pyramidal neuron dendrites in a mouse model of Fragile X Syndrome. B. T. THROESCH; D. A. HOFFMAN*. *NIH.*
- 4:00 G16 **445.08** ▲ Abnormal neocortical vegf expression in fragile x syndrome. A. DAVIS; A. GALVAN; R. GALVEZ*. *Univ. of Illinois at Urbana Champaign, Univ. of Illinois, Urbana-Champaign.*
- 1:00 G17 **445.09** Effect of adult restoration of FMRP expression on Fragile X phenotypes. D. V. VENKITARAMANI*; S. CHAKI; A. GUERRERO; G. ALDRIDGE; C. L. COX. *Univ. Illinois, Neurosci. Program, Mol. and Integrative Physiol.*
- 2:00 G18 **445.10** Basal ganglia involvement in ARX gene mutated patients but not in Down syndrome patients: The reason for ARX very specific grasping? A. CURIE; V. DES PORTES; A. ROY; T. NAZIR; A. BRUN; A. CHEYLUS; G. BUSSY; Y. PAULIGNAN; A. REBOUL; D. IBARROLA; J. KONG; N. HADJIKHANI; R. L. GOLLUB*. *Athinoula A Martinou Ctr. for Biomedical Imaging, Massachusetts Gen. Hosp., Hospices civils de Lyon, L2C2, CNRS UMR 5230, Inst. des Sci. cognitives, CERMEP, Massachusetts Gen. Hosp.*
- 3:00 G19 **445.11** The Fragile X mental retardation protein is present in myelinating oligodendrocytes: Implications for disorders involving the FMR1 gene. A. GIAMPETRUZZI*; E. BARBARESE. *Univ. of Connecticut Hlth. Ctr.*
- 4:00 G20 **445.12** Alterations in dendritic spine shape in anterior piriform cortex of adult and aging Fmr1-KO mice. J. GOCEL*; D. WINSKI; B. W. CAIRNS; A. J. ERNST; J. LARSON. *Univ. of Illinois, Univ. of Illinois.*
- 1:00 G21 **445.13** Altered sensitivity to drugs that affect intracranial self-stimulation in a mouse model of fragile x syndrome. M. C. KROUSE*; E. W. FISH; J. E. ROBINSON; C. J. MALANGA. *UNC Chapel Hill.*
- 2:00 G22 **445.14** Altered functional and structural plasticity with impaired motor skill learning in the fmr1 KO mouse. P. RAGUNATHAN; B. C. REINER; A. SURESH; A. DUNAEVSKY*. *Univ. of Nebraska Med. Ctr., Univ. of Nebraska Med. Ctr.*
- 3:00 G23 **445.15** Regulation of metalloproteinases in the brains of Fmr1/Mmp9 double knockout mice. H. K. SIDHU*; I. M. ETHELL; D. W. ETHELL. *Univ. of California Riverside, Western Univ. of Hlth. Sci.*
- 4:00 G24 **445.16** ● Targeting the PI3K/mTOR pathway to reverse Fragile X Syndrome-associated phenotypes. C. GROSS*; C. CHANG; J. R. GIBSON; K. M. HUBER; G. J. BASSELL. *Emory Univ., Univ. of Texas Southwestern Med. Ctr.*
- 1:00 G25 **445.17** Defective GABA_A transmission alters excitability in the basolateral amygdala in a mouse model of Fragile-X Syndrome. B. S. MARTIN*; M. M. HUNTSMAN. *Children's Natl. Med. Ctr., Children's Natl. Med. Ctr.*
- 2:00 G26 **445.18** ● Pharmacological reversal of cognitive, morphological and functional phenotypes in adult fragile X mice. A. MICHALON*; M. SIDOROV; T. M. BALLARD; L. OZMEN; W. SPOOREN; J. G. WETTSTEIN; G. JAESCHKE; M. F. BEAR; L. LINDEMANN. *Discovery Neuroscience, F. Hoffmann-La Roche Ltd., The Picower Inst. for Learning and Memory, Massachusetts Inst. of Technol.*
- 3:00 G27 **445.19** Exploring isoprenoids dysfunction in an animal model of autism. M. V. TEJADA-SIMON*; A. PALLY; S. AFSHORDEL; G. P. ECKERT. *Univ. Houston, Univ. of Frankfurt am Main.*
- 4:00 G28 **445.20** ● The anticonvulsant effects of R-baclofen are reduced when administered as racemic (R-/S-) baclofen in Fragile X mice. M. J. SHUMWAY; C. S. HENDERSON; C. BRYNCZKA; F. R. POSTMA; M. M. CORLEW; R. SANCHEZ-PONCE; A. M. HEALY; R. S. HAMMOND*. *Seaside Therapeut.*
- 1:00 G29 **445.21** Characterization of performance on Enumeration task in girls with 22q11.2 Deletion Syndrome, Fragile X Syndrome, Turner's Syndrome and typically developing female girls. A. I. QUINTERO*; L. M. WONG; Y. MCLENNAN; T. J. SIMON. *Univ. of California Davis, Univ. of California Davis, Univ. of California Davis Med. Ctr.*
- 2:00 G30 **445.22** Excitation of fast-spiking interneurons is enhanced by presynaptic fragile x mental retardation protein. A. B. PATEL*; K. M. HUBER; J. R. GIBSON. *UT Southwestern Med. Ctr., UT Southwestern Med. Ctr.*
- 3:00 G31 **445.23** Cellular mechanisms of sensory hyperexcitability in fragile x. K. JUCZEWSKI; M. T. ARNETT; C. BAGNI; G. FISONE; T. CELIKEL; P. KRIEGER*. *Karolinska Inst., USC, Katholieke Univ. Leuven.*
- 4:00 G32 **445.24** Imaging PSD-95 mRNA translation in dendrites and its dysregulation in a mouse model of fragile x syndrome. M. F. IFRIM*; I. RASNIK; G. J. BASSELL. *Emory Univ., Emory Univ.*
- 1:00 G33 **445.25** ● Reversal of defective synaptic transmission and plasticity in the amygdala through pharmacological inhibition of mGluR5 in a mouse model of fragile X syndrome. S. KEDIA*; R. H. RING; D. STEPHENSON; D. SMITH; S. O'NEILL; S. CHATTARJI. *Natl. Ctr. For Biol. Sci., Pfizer Worldwide Res. and Develop.*

POSTER

446. Epilepsy: Animal Models

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 G34 **446.01** D-amphetamine decreases absence seizures in mutant myelin. M. CORTÉS*; M. LARA-LOZANO; A. UGARTE; J. R. EGUIBAR. *Benemérita Univ. Autónoma De Puebla, Inst. of Physiol.*
- 2:00 G35 **446.02** Sox1 expression in cerebellum bergmann glia in epileptic kindled-rats. A. G. EGUILUZ MELENDEZ; C. R. OSORNIO*; C. TREJO SOLIS; V. CUSTODIO RAMÍREZ; M. HERNÁNDEZ CERÓN; C. PAZ TRES. *INNN MVS.*
- 3:00 G36 **446.03** A comparison of evoked seizure activity in the mature and immature zebrafish brain. J. D. LAUDERDALE*; R. BALL; A. PAGE; S. ACUFF; R. SINGER; J. GAUDET; V. HARIHARAN; C. H. KEITH; T. M. DORE; A. T. SORNBORGER. *Univ. of Georgia, Univ. of South Carolina at Beaufort, Univ. of Georgia, Univ. of Georgia.*
- 4:00 G37 **446.04** The Receptor for Advanced Glycation End Products (RAGE) is overexpressed in mesial temporal lobe epilepsy (mTLE) and contributes to seizures and epileptogenesis. A. VEZZANI*; V. IORI; M. CARLI; R. VERTEMARA; T. RAVIZZA; E. ARONICA; M. MAROSO. *Mario Negri Inst. for Pharmacol. Res., Mario Negri Inst. for Pharmacol. Res., Academisch Medisch Centrum, Epilepsy Inst. in The Netherlands Fndn.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 G38 **446.05** *In vivo* simultaneous calcium and intrinsic signal imaging of 4-AP ictal and interictal events demonstrate dynamic neurovascular coupling during ictal but not interictal events. H. MA*; M. ZHAO; S. HARRIS; T. H. SCHWARTZ. *Weill Med. Sch. Cornell Univ., Weill Med. Col. of Cornell Univ.*
- 2:00 G39 **446.06** Dextromethorphan induces seizure-like activity in *dugesia tigrina*. B. D. WHITE*; N. L. RHODE; D. L. LIPSCOMB; B. COLE; G. Y. HONG; S. M. ANCHETA. *Univ. of Washington Bothell.*
- 3:00 G40 **446.07** • VEGF suppresses long-term seizure-induced increases in vascular density and glucose uptake. K. A. SCORPIO*; B. THOMAS; F. JAMIL; A. MICHALIK; S. D. CROLL. *City Univ. of New York Queens Col., City Univ. of New York Grad. Ctr., Regeneron Pharmaceuticals.*
- 4:00 G41 **446.08** • Telemetric device-assisted characterization of a combined mechanical and blast-induced brain injury model in sprague-dawley rats. M. ADDIS*; M. A. FURTADO; K. BAILEY; M. HILL; F. ROSSETTI; S. A. VANALBERT; A. A. EDWARDS; C. A. RICCIO; J. R. ANDRIST; J. B. LONG; D. L. YOURICK. *WRAIR.*
- 1:00 G42 **446.09** EEG-fMRI in a ferret model of generalized tonic-clonic seizures. M. W. YOUNGBLOOD*; A. M. MISHRA; S. ENAMANDRAM; B. G. SANGANAHALLI; J. E. MOTELow; H. X. BAI; A. GRIBIZIS; A. LIGHTEN; F. HYDER; H. BLUMENFELD. *Yale Univ., Yale Univ., Yale Univ.*
- 2:00 G43 **446.10** Contribution of neuronal activity to metabolic/hemodynamic responses in an animal model of epilepsy. S. SAILLET*; P. QUILICHINI; A. GHESTEM; I. VANZETTA; J. M. WARINKING; O. DAVID; A. IVANOV; C. BERNARD; C. G. BÉNAR. *Grenoble Inst. Des Neurosciences, Inst. de Neurosciences des Systèmes, Inst. de Neurosciences de la Timone.*
- 3:00 G44 **446.11** Neuroprotectin d1 attenuates aberrant neuronal networks in epileptogenesis. A. E. MUSTO*; T. QUEBEDEAUX; C. WALKER; D. KHOUBEHI; N. BAZAN. *Louisiana State Univ. Hlth. Sci. Ctr.*
- 4:00 G45 **446.12** Identification of the seizure onset zone in a rat model of subcortical band heterotopia, a cortical malformation causing epilepsy. L. PETIT*; M. JALABERT; E. BUHLER; A. REPRESA; J. MANENT. *INMED/INSERM U901, Aix-Marseille university.*
- 1:00 G46 **446.13** Understanding epilepsy in the active brain: bilateral sensory-evoked neurovascular coupling in a rat model of focal neocortical epilepsy. S. S. HARRIS*; M. BRUYNS-HAYLETT; A. KENNERLEY; L. BOORMAN; M. ZHAO; H. MA; P. OVERTON; P. REDGRAVE; T. SCHWARTZ; J. BERWICK. *Univ. of Sheffield, Weill Cornell Med. Col.*
- 2:00 H1 **446.14** • Differential expression of GABA, NMDA and AMPA receptors in the hippocampus in a mouse model of mesiotemporal lobe epilepsy. S. STAMBOULIAN*; T. CHABROL; A. LAHARIE; C. BOUYSSIÈRE; C. ROUCARD; A. DEPAULIS. *Grenoble Inst. of Neurosci. Inserm U836, Synapcell.*
- 3:00 H2 **446.15** Maturation-dependent plasticity of dentate granule cell mossy fibers in experimental temporal lobe epilepsy. A. L. ALTHAUS*; H. ZHANG; E. MESSENGER; J. M. PARENT. *Univ. of Michigan, Univ. of Michigan.*
- 4:00 H3 **446.16** Enhancement of spontaneous seizure susceptibility of Noda epileptic rat (NER) by zinc chelators. A. TAKEDA*; M. IIDA; M. ANDO; M. NAKAMURA; N. OKU. *Univ. Shizuoka, Univ. Shizuoka.*
- 1:00 H4 **446.17** D2-like dopaminergic receptors alterations in the epileptic focus in an animal model of temporal lobe epilepsy. D. ALCANTARA-GONZALEZ*; B. FLORAN; F. PEÑA; L. ROCHA. *CINVESTAV - IPN, Physiology, Biophysics and Neurosciences, CINVESTAV - IPN, Inst. of Neurobiology, UNAM, Pharmacobiology, CINVESTAV - IPN.*
- 2:00 H5 **446.18** Cre inducible cholera toxin mouse provides a model for cyclic-amp dependent behavioral abnormalities and seizures. E. M. PEDEN*; J. R. ACHARTE; M. CAPECCHI. *Univ. of Utah, HHMI/University of Utah.*

POSTER

447. Epilepsy: Mechanisms of Comorbidities

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 H6 **447.01** Anti-epileptic and anti-anxiety effects of leaf-extracts of the chinese lantern tree (*dichrostachys glomerata*) in cd-1 mice. S. A. BISSONG*; E. E. OSIM. *Dalhousie Univ., Univ. of Calabar.*
- 2:00 H7 **447.02** Early-life seizures result in a long-term elevation of anxiety in adult mice. G. SMITH; E. ARBUCKLE; J. N. LUGO*, JR. *Baylor Univ., Baylor Univ.*
- 3:00 H8 **447.03** ▲ Unique strains of kindling-susceptible and kindling-resistant rats are behaviorally distinct: Evidence for influences of genetic background on both seizure-induced plasticity and behavior. T. LANGBERG; K. MILLER; C. E. STAFSTROM; T. P. SUTULA*. *Univ. of Wisconsin, Univ. of Wisconsin.*
- 4:00 H9 **447.04** Early life seizures impair social behaviour across the lifespan. R. M. CYSNEIROS*; A. S. S. CASTELHANO; G. S. CASSANE. *Univ. Presbiteriana Mackenzie, Univ. Presbiteriana Mackenzie.*
- 1:00 H10 **447.05** Epilepsy and pseudoseizure: Clinical, psychiatric and neuropsychological evaluation. G. P. TISI*. *Univ. degli studi di Milano.*
- 2:00 H11 **447.06** Social behaviors altered after neonatal hypoxia-induced seizures are rescued by NBQX. J. J. LIPPMAN BELL*; P. M. KLEIN; M. C. JACKSON; F. E. JENSEN. *Children's Hosp. Boston/Harvard Med. Sch., Children's Hosp. Boston.*
- 3:00 H12 **447.07** • Environmental enrichment improves spatial learning in animals with a brain malformation. K. R. JENKS*; M. M. LUCAS; A. ROBBINS; G. L. HOLMES; J. M. BARRY; R. C. SCOTT. *Dartmouth Med. Sch.*
- 4:00 H13 **447.08** The firing properties and replay of hippocampal place cells in rats with epilepsy during sleep. A. S. TITIZ*; R. C. SCOTT; G. L. HOLMES; P. LENCK-SANTINI. *Dartmouth-Hitchcock Med. Ctr., Geisel Sch. of Med. at Dartmouth.*
- 1:00 H14 **447.09** Neurophysiological dysfunctions associated with morphological changes in BCNU-treated rat, a model of cortical dysplasia. M. CHIKHLADZE*; F. INVERARDI; R. MORONI; M. REGONDI; P. PENNACCHIO; F. PANZICA; C. FRASSONI; S. FRANCESCHETTI. *Fondazione IRCCS Inst. Neurologico C. Besta.*

2:00 H15 **447.10** Development of allodynia following Status Epilepticus in two models of temporal lobe epilepsy in rats. E. A. PINEDA*; D. SHIN; R. SANKAR; A. M. MAZARATI. UCLA.

POSTER

448. Epilepsy: Status Epilepticus

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

1:00 H16 **448.01** Beneficial effects of inhibiting the prostaglandin E receptor EP2 following organophosphate induced status epilepticus. A. ROJAS*; T. GANESH; Y. QUAN; P. GUEORGIEVA; E. GALAGAN; R. DINGLELINE. Emory Univ. (SOM), Emory Univ.

2:00 H17 **448.02** Inhibition of prostaglandin E2 receptor EP2 subtype in the pilocarpine model of epilepsy. J. JIANG*; Y. QUAN; T. GANESH; A. ROJAS; N. LELUTIU; R. DINGLELINE. Emory Univ. Sch. of Med.

3:00 H18 **448.03** Neuroprotective effects of FrPbAll isolated from the venom of the spider *Parawixia bistrita* in Wistar rats submitted to the pilocarpine-induced Status Epilepticus (SE). A. O. CUNHA*; M. R. MORTARI; J. L. LIBERATO; N. C. LOPES; R. O. BELEBONI; J. COUTINHO-NETTO; W. F. SANTOS. Univ. of São Paulo, Univ. of Brasília, Univ. of São Paulo - FFCLRP, Univ. of São Paulo - FCFRP, Univ. of Ribeirão Preto, Univ. of São Paulo - FMRP.

4:00 H19 **448.04** Propylparaben modifies the status epilepticus induced by lithium-pilocarpine in rat. C. E. SANTANA*, SR; S. OROZCO; L. ROCHA. Ctr. of Res. and Advanced Studies of the Natl. Polytechnic Inst., Med. Res. Unit in Neurolog. Diseases. Specialty Hospital. Natl. Med. Center, Century XXI, IMSS, Ctr. of Res. and Advanced Studies of Natl. Polytechnic Inst.

1:00 H20 **448.05** Evaluation of promethazine effects against seizures induced by the chemical warfare nerve agent soman in guinea pigs. T. DAO*; J. A. LEUSCHNER; S. W. KASKI; E. A. JOHNSON; C. R. BRAUE; T. SHIH; R. K. KAN. USAMRICD.

2:00 H21 **448.06** Thalamic calcification is a pathological consequence of seizures induced by the chemical warfare nerve agent soman. J. LEUSCHNER*; S. W. KASKI; E. P. SARRICKS; T. L. DAO; E. A. JOHNSON; H. M. HOARD-FRUCHEY; C. R. BRAUE; R. K. KAN. USAMRICD, USAMRICD.

3:00 H22 **448.07** Effect of lithium-pilocarpine-induced status epilepticus on ultrasonic vocalizations in rat pups. S. MEDEL-MATUS*; C. A. PÉREZ-ESTUDILLO; L. BELTRÁN-PARRAZAL; C. MORGADO-VALLE; R. TOLEDO-CÁRDENAS; J. MANZO; M. L. LÓPEZ-MERAZ. Inst. De Neuroetología, Univ. Veracruzana, Posgrado en Neuroetología, Univ. Veracruzana, Ctr. de Investigaciones Cerebrales, Univ. Veracruzana, Univ. Veracruzana.

4:00 H23 **448.08** Epigenetic mechanisms in temporal lobe epilepsy and memory deficits. R. R. PARRISH; A. J. ALBERTSON; J. J. HABLITZ; K. L. MASCIA; W. D. HASELDEN; F. D. LUBIN*. Univ. Alabama Birmingham.

1:00 H24 **448.09** Status epilepticus causes age-dependent motor behavior which is modulated by the environment. J. C. NEILL*. Long Island Univ.

2:00 H25 **448.10** ● Lamotrigine protects against status epilepticus-induced neurodegeneration and cognitive decline. A. B. ALEX*; H. S. WHITE. Anticonvulsant Drug Develop. Program, Univ. of Utah.

3:00 H26 **448.11** MEMRI intensity, c-fos expression and caspase-3 activity after short duration of pilocarpine-induced status epilepticus (SE). J. M. MALHEIROS*; B. O. AMORIM; D. S. PERSIKE; A. TANNÚS; L. COVOLAN. Univ. Federal De São Paulo, Univ. Federal De São Paulo, CIERMag - São Carlos Physics Inst.

4:00 H27 **448.12** Deep brain stimulation attenuates caspase-3 activity after Status epilepticus induced by pilocarpine. B. O. AMORIM*; J. MALHEIROS; D. PERSIKE; C. HAMANI; L. COVOLAN. Univ. Federal De São Paulo, Univ. Federal de São Paulo, Univ. of Toronto.

1:00 H28 **448.13** Evaluation of acute neurological toxicity following vapor inhalation exposure to soman in non-anesthetized rats. M. W. PERKINS; B. J. WONG; G. MURPHY; A. M. RODRIGUEZ; J. L. DEVORAK; R. K. KAN*; J. A. LEUSCHNER; T. DAO; A. M. SCIUTO. USAMRICD.

2:00 H29 **448.14** Genetic analysis of seizure-induced excitotoxic cell death induced by pilocarpine in inbred strains of mice. P. E. SCHAUWECKER*. USC.

3:00 I1 **448.15** ▲ Lizard hippocampal zincergic and nitrgergic systems are modified after pilocarpine administration. M. M. LIMA*; H. C. PIMENTEL; M. L. SANTOS; M. MARCHIORO. Federal Univ. of Sergipe, Univ. of Washington-Bothell, Faculdade Estácio de Sergipe.

4:00 I2 **448.16** Evaluation of observation scales based only on high-grade seizures in pilocarpine-induced status epilepticus. M. NOUHI; A. J. WALLEN-MACKENZIE*; K. KULLANDER; J. ZELANO. Dept of Neurosci.

1:00 I3 **448.17** Early expression and cellular distribution of toll-like receptor 4 in rat hippocampus following pilocarpine-induced status epilepticus. O. F. MERCADO-GOMEZ*; A. P. NEBREDACORONA; A. LOPEZ-HERNANDEZ; R. GUEVARA-GUZMAN. Natl. Autonomous Univ. of Mexico, Natl. Univ. of Mexico Sch. of Med., Natl. Univ. of Mexico Sch. of Med.

POSTER

449. Ischemia: Cellular Mechanisms

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

1:00 I4 **449.01** Altered cell volume regulation in cortical astrocytes of alpha-syntrophin-negative GFAP/EGFP mice. M. ANDEROVA*; J. BENESOVA; M. MIKESOVA; P. HONSA; D. DZAMBA; J. KRISKA; V. RUSNAKOVA; M. KUBISTA. Inst. Exper Med. ASCR, Inst. of Biotechnology, ASCR.

2:00 I5 **449.02** Extracellular diffusion parameters and potassium concentration in GFAP-EGFP- α -syn +/- and GFAP-EGFP- α -syn -/- mice in models of cell swelling. L. DMYTRENKO*; M. CICANIC; J. BENESOVA; M. ANDEROVA; L. VARGOVA; E. SYKOVA. IEM ASCR, Charles University, 2nd Med. Fac.

3:00 I6 **449.03** Ischemia-induced transient enhancement of spontaneous excitatory synaptic events in Purkinje cells in the uvula-nodulus depend on regional distinction of excitability in granule cells and unipolar brush cells. Y. TAKAYASU*; M. SHINO; K. CHIKAMATSU. Gunma Univ. Grad. Sch. of Med.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 I7 **449.04** Projection neurons in brainstem and hypothalamus intrinsically resist acute stroke injury while projection neurons in cortex, striatum and thalamus die. R. D. ANDREW*; Y. HSIEH; C. D. BRISSON. *Queen's Univ., Queen's Univ.*
- 1:00 I8 **449.05** Brain-endothelial TAK1-deficiency as a model for cerebral small vessel disease. D. RIDDER*; S. SALININ; T. WEBER; S. MUHAMMAD; H. WOLBURG; E. KORPOS; L. SOROKIN; D. BALSCHUN; M. SCHWANINGER. *Univ. of Lübeck; Inst. of Pharmacol., Inst. of Pathology, Univ. Hosp. Tübingen, Inst. of Physiological Chem. and Pathobiochemistry, Univ. of Münster, Lab. of Biol. Psychology, Catholic Univ. of Leuven.*
- 2:00 I9 **449.06** • Electrophysiological responses of the medial vestibular neurons to transient ischemia. M. SHINO*; Y. TAKAYASU; K. CHIKAMATSU. *Otolaryngology Gunma Univ. Grad Sch. Med.*
- 3:00 I10 **449.07** Anoxia and ischemia produce CNS white matter injury by different mechanisms. M. A. HAMNER*; Z. YE; B. R. RANSOM. *Univ. Washington.*
- 4:00 I11 **449.08** Hypothermia increases synaptic inhibition with effects on GABA-A receptor kinetic properties and drug interactions. D. E. NAYLOR*. *HARBOR-UCLA.*
- 1:00 I12 **449.09** • Pharmacological modulation of intracellular ATP influences adenosine release and functional outcome in response to metabolic stress in hippocampal slices. B. G. FRENGUELLI*; A. DONEY; S. ZUR NEDDEN. *Warwick Univ., Univ. of Dundee.*
- 2:00 J1 **449.10** • Hematopoietic growth factors repair chronic stroke brain by bone marrow derived-Ionized calcium binding adaptor molecule-1 expressing monocytes. X. REN*; H. HU; L. CUI; L. ZHAO. *Louisiana State Univ. Hlth. Sci. Ctr., Louisiana State Univ. Hlth. Sci. Ctr.*
- 3:00 J2 **449.11** Evolution of penumbra and blood-brain barrier leakage after acute focal ischemia. B. C. HONG GOKA*; R. D. SWEAZEY; S. TOPALOV; W. CHEN; F. F. CHANG. *Indiana Univ. Sch. of Medicine-Fort Wayne, UCSF-Fresno Alzheimer's & Memory Ctr., Indiana Univ. Sch. of Med.*
- 4:00 J3 **449.12** ▲ Prolyl hydroxylase inhibition promotes angiogenesis after ischemic stroke in mice. M. ZHANG*; M. E. OGLE; X. GU; S. YU; L. WEI. *Emory Univ.*
- 1:00 J4 **449.13** • The role of BNIP3 in brain ischemia/reperfusion: Regulating autophagy and apoptosis in delayed neuron damage. R. SHI*; J. KONG. *Univ. of Manitoba.*
- 2:00 J5 **449.14** Expression of zinc transporters ZIP 1 and 4 are induced after a common carotid artery occlusion in the rat. L. MARTINEZ MENDIETA*; G. RIVERA-GARCÍA; C. PIÑA-LEIVA; E. BRAMBILA-COLOMBRES; B. LEÓN-CHÁVEZ; A. NAVARRO-CRUZ; G. FLORES; D. MARTÍNEZ-FONG; H. RUBIO-ZAPATA; D. ESTRELLA-CASTILLO; P. AGUILAR-ALONSO. *Benemérita Univ. Autónoma De Puebla, Benemérita Univ. Autónoma de Puebla, Benemérita Univ. Autónoma de Puebla, Ctr. de Investigaciones y Estudios Avanzados IPN-Zacatenco, Univ. Autónoma de Yucatán.*
- 3:00 J6 **449.15** Proteomic analysis after human mesenchymal stem cell transplantation in ischemic rats. K. CHOI; J. SHIM; G. PHUKAN; S. HYUN; N. DUC-TOAN; J. LEE; W. SHIM; G. LEE*. *Ajou Univ., Ajou university, Ajou Univ. Sch. of Med.*
- 4:00 J7 **449.16** Hyperglycemia and Post-stroke Seizures. Z. LEI; H. ZHANG; Y. LIANG; J. LI; Z. C. XU*. *Indiana Univ. Med. Ctr., 3rd Affiliate Hosp. Guangzhou Med. Col.*
- 1:00 J8 **449.17** Distinct patterns of protease activation in the acute stages of cerebral ischemia. S. ZHANG*; L. KOJIC; M. TSANG; M. S. CYNADER; W. JIA. *Brain Res. Ctr., Brain Res. Ctr.*
- 2:00 J9 **449.18** Altered profiles of axonal sprouting, inflammatory cytokines, and trophic factors in spinal cord after cortical stroke. B. SIST*; K. FOUAD; M. BANDET; I. WINSHIP. *Univ. of Alberta.*
- 3:00 J10 **449.19** Regulation of neurogenesis and functional recovery induced by leukemia inhibitory factor after focal ischemia in mice. K. CHOI*; X. GU; L. WEI; S. YU. *Emory Univ. Sch. of Med., Emory University, Sch. of Med., Emory University, Sch. of Med., Emory University, Sch. of Med.*

POSTER

450. Spinal Cord Injury: Therapeutic Strategies III

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 J11 **450.01** A cell spanning IKVAV expressing peptide for treatment of spinal cord injury. J. E. MATA*; W. BALTZER; S. KAZEMI; K. F. SCHILKE; H. MANSOURI. *Western Univ. of Hlth. Sci., Oregon State Univ., Oregon State Univ., Oregon State Univ.*
- 2:00 J12 **450.02** Intrathecal infusion of decorin to long term chronic contusion spinal cord injury promotes functional recovery. K. H. JASPER; K. H. MINOR; S. M. GREEN; W. REN; J. E. DAVIES; S. J. DAVIES*. *Univ. of Colorado, Denver.*
- 3:00 J13 **450.03** The potential of extracellular matrix-based scaffolds to support recovery after spinal cord injury: *in vitro* and *in vivo* observation. M. OUDEGA*; C. J. MEDBERRY; T. L. NOVOSAT; J. KELLY; T. KEANE; C. DEARTH; S. BADYLAK. *Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh Sch. of Med.*
- 4:00 J14 **450.04** Center of mass acceleration as a surrogate for force production after neurological injury: Effects of inclined treadmill walking. M. G. BOWDEN*; C. M. GREGORY; S. A. KAUTZ. *Ralph H. Johnson VA Med. Center/Medical Univ. of South Carolina.*
- 1:00 J15 **450.05** Sensorimotor cortical spike activity of spinal cord injured Wistar rats during treadmill training. T. A. B. MIRANDA; E. MORYA*; A. F. CRISTANTE; K. SAMESHIMA; M. NICOLELIS. *Med. Col. of Univ. of São Paulo, AASDAP IINNELLS, Med. Col. of Univ. of São Paulo, Edmond and Lily Safra Intl. Inst. for Neurosciences of Natal, Duke Univ., Duke Univ., Duke Univ., Duke Univ.*
- 2:00 J16 **450.06** Effects of TrkB agonist in spinal cord injury. C. T. BEVER, Jr; V. K. C. NIMMAGADDA; S. TALAT; S. I. V. JUDGE; O. TSYMBALYUK; V. V. GERZANICH; J. M. SIMARD; D. TRISLER*; T. K. MAKAR. *Univ. Maryland Sch. Med., VA Med. Ctr., Univ. Maryland Sch. Med.*

- 3:00 J17 **450.07** ▲ Biochemical effects of perfluorocarbons and a polypyrrol/iodine implant synthesized by plasma after traumatic spinal cord injury in rats. S. M. SÁNCHEZ-TORRES*; H. SALGADO-CEBALLOS; L. ALVAREZ-MEJIA; R. MONDRAGON-LOZANO; S. TORRES-CASTILLO; R. OLAYO-GONZALEZ; M. G. OLAYO-GONZALEZ; G. J. CRUZ; J. MORALES; A. DIAZ-RUIZ; C. RIOS; A. CHÁVEZ-NEGRETE. *Instituto Politécnico Nacional, Unidad de Investigación Médica en Enfermedades Neurológicas, Hosp. de Especialidades, CMN siglo XXI, IMSS, Univ. Autónoma Metropolitana unidad Iztapalapa, Univ. Estatal del Valle de Ecatepec, Inst. Nacional de Investigaciones Nucleares, Inst. Nacional de Neurología y Neurocirugía, Dirección de Educación e Investigación en Salud del CMN, Siglo XXI, IMSS.*
- 4:00 J18 **450.08** Histone deacetylase inhibition stimulates corticospinal tract function and promotes functional recovery after spinal cord injury. A. PETIT*; T. MENG; J. LIU; C. MCSHANE; G. BOCK; W. TETZLAFF; J. A. ROSKAMS. *Life Sci. Inst. and Icord, Univ. of British Columbia, ICORD.*
- 1:00 J19 **450.09** Tissue-type plasminogen activator (tPA) promotes long-term functional recovery after compressive spinal cord injury in rats. M. A. HEBERT; S. LEMARCHANT; M. PRUVOST; M. GAUBERTI; J. DO REGO; H. VAUDRY; E. MAUBERT; C. ALI; E. EMERY; D. VIVIEN; V. R. AGIN*. *GIP CYCERON - Caen Univ., Lab. of Neuronal and Neuroendocrine Differentiation and Communication.*
- 2:00 J20 **450.10** ▲ Dapsone pharmacokinetics after spinal cord injury in rats. T. BAUTISTA*; L. A. TRISTÁN-LÓPEZ; A. DÍAZ-RUIZ; H. SALGADO-CEBALLOS; M. ALCARAZ-ZUBELDIA; C. RÍOS. *National Institute Of Neurology And Neurosurgery, Autonomous Metropolitan University, National Medical Center XXI Century, SSML.*
- 3:00 K1 **450.11** Neuroprotection resulting from low-dose carbon monoxide inhalation in rat spinal cord injury.*1. HAN^{1,3,4}; E. IFEDIGBO²; D. YU^{1,3}; A. E. ROPPER^{1,3}; H. HARAGOPAL^{1,3}; S.-W. KIM^{1,3,5}; A. M. K. CHOI²; Y. D. TENG^{1,3,6}; ¹Dept. of Neurosurg., ²Div. of Pulmonary and Critical Care Med., Harvard Med. School/Brigham & Women's Hosp., Boston, MA; ³Div. of Spinal Cord Injury Res., VA Boston Healthcare Syst., Boston, MA; ⁴Dept. of Neurosurg., CHA University, CHA Bundang Med. Ctr., Seoungnam, Kyeunggido, Korea, Republic of; ⁵Div. of Periodontology, Harvard Sch. of Dent. Med., Boston, MA; ⁶Dept. of PM&R, Harvard Med. School/Spaulding Rehabil. Hosp., Boston, MA
- 4:00 K2 **450.12** Huperzine A treatment alleviates chronic pain resulting from experimental compression spinal cord injury. D. YU*; D. K. THAKOR; I. HAN; A. E. ROPPER; H. HARAGOPAL; R. D. ZAFONTE; S. SCHACHTER; Y. D. TENG. *Harvard Med. Schl/BWH, Veteran Affairs Boston Healthcare Syst., Harvard Med. Schl/Spaulding Rehabil. Hosp., Ctr. for Integration of Med. and Innovative Technol. (CIMIT).*
- 1:00 K3 **450.13** ▲ *In vivo* diffusion magnetic resonance characteristics of spinal cord injury following polypyrrole/iodine treatment in rats. R. MONDRAGON-LOZANO*; R. OLAYO; J. MORALES; L. ALVAREZ-MEJIA; A. MORALES; H. SALGADO-CEBALLOS; C. RIOS; A. DIAZ-RUIZ; G. OLAYO; G. CRUZ; E. ROLDAN-VALADEZ; M. MARTINEZ-LOPEZ. *Univ. Autonoma Metropolitana, Inst. Mexicano del Seguro Social, Inst. Nacional de Neurología y Neurocirugía, Inst. Nacional de Investigaciones Nucleares, Magnetic Resonance Unit. Medica Sur Clin. & Fndn.*
- 2:00 K4 **450.14** Transplantation of integration-free human iPSCs-derived neurospheres into injured spinal cord promotes functional recovery without tumor formation in immunodeficient mice. Y. KOBAYASHI*; G. ITAKURA; R. YAMAGUCHI; Y. TOYAMA; S. YAMANAKA; M. NAKAMURA; H. OKANO. *Dept. of Orthopedic Surgery, Sch. of Medicine, Keio Univ., Dept. of Physiology, Sch. of Medicine, Keio Univ., Genomic Sci. Laboratories, Dainippon Sumitomo Pharma Co., Ltd., Ctr. for Induced Pluripotent Stem Cell Res. and Application, Kyoto Univ.*
- 3:00 K5 **450.15** Grafted unsafe human iPSC-derived neurospheres promote temporal functional recovery in spinal cord injured mice, followed by neoplasm formation and motor deterioration after long term observation. S. NORI*; Y. OKADA; G. ITAKURA; Y. KOBAYASHI; A. YASUDA; M. KOIKE; Y. UCHIYAMA; E. IKEDA; Y. TOYAMA; S. YAMANAKA; H. OKANO; M. NAKAMURA. *Dept Orthopaedics, Keio Univ. Sch. Med., Dept Physiology, Keio Univ. Sch. Med., Dept Cell Biol. and Neuroscience, Juntendo Univ. Grad Sch. Med., Dept Pathology, Yamaguchi Univ. Grad Sch. Med., Ctr. for iPS Cell Res. and Application(CiRA), Kyoto Univ.*
- 4:00 K6 **450.16** Olfactory bulb ensheathing glia revert reactive astrogliosis in a novel *in vitro* model that mimics spinal cord trauma. I. NEBOT; A. RAMON-CUETO*. *Inst. Biomed Valencia (CSIC).*
- 1:00 K7 **450.17** ● A study to examine the tumorigenicity of the human neural stem cell line NSI-566RSC in spinal cord injured rats. T. LAM; M. P. HEFFERAN*; O. KAKINOHANA; M. MARSALA; D. M. QUACH; S. WU; D. LEE; K. L. HAYAMA; M. C. WU; T. HAZEL; K. JOHE. *Neuralstem Inc., Univ. of California - San Diego, Neurodigitech, LLC.*
- 2:00 K8 **450.18** The primate allogeneic transplantation of neural stem/progenitor cells promoted functional recovery in marmosets with spinal cord injury. H. IWAI*; H. SHIMADA; S. NISHIMURA; Y. KOBAYASHI; T. KONOMI; O. TSUJI; K. FUJIYOSHI; K. HIKISHIMA; Y. TOYAMA; M. NAKAMURA; H. OKANO. *Keio University, Sch. of Med., Keio Univ. Sch. of Med., Saitama Social Insurance Hospita, Murayama Med. Center, Natl. Hosp. Organization.*
- 3:00 K9 **450.19** Selective ablation of the grafted cells by controlling the immune suppression. G. ITAKURA*; Y. KOBAYASHI; Y. TAKAHASHI; S. NORI; A. YASUDA; S. NISHIMURA; M. TAKANO; T. KONOMI; H. IWAI; Y. TOYAMA; M. NAKAMURA; H. OKANO. *Dept. of Orthopaedic Surgery, Sch. of Medicine, Keio Univ., Dept. of Physiology, Sch. of Medicine, Keio Univ.*
- 4:00 K10 **450.20** The use of human induced pluripotent stem cell-derived neural precursors in a rat model of spinal cord injury. P. JENDELOVA*; N. ROMANYUK; T. AMEMORI; K. TURNOVCOVA; B. ONTENIENTE; E. SYKOVA. *Inst. of Exptl. Medicine, ASCR, Charles University, Second Fac. of Med., INSERM UMR861, Univ. d'Evry-Val d'Essonne.*
- 1:00 K11 **450.21** Effects of embryonic neural stem cell therapy on oxidative and nitrosative stress biomarkers in acute and chronic spinal cord injured rats. T. DAGCI*; S. KONYALIOGLU; M. OZGUNUL. *Ege Univ. Sch. of Med. Physiol. Dept., Ege Univ. Ctr. For Brain Res., Ege University, Fac. of Pharm., Ege Univ. Sch. of Med.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 K12 **450.22** Treatment of a mouse model of spinal cord injury by transplantation of human iPS cell-derived long-term self-renewing neuroepithelial-like stem cells. Y. FUJIMOTO*; M. ABEMATSU; A. FALK; K. TSUJIMURA; T. SANOSAKA; B. JULIANDI; K. SEMI; M. NAMIHIRA; S. KOMIYA; A. SMITH; K. NAKASHIMA. *Grad. Sch. of Biol. Science, NAIST, Grad. Sch. of Med. and Dent. Sciences, Kagoshima Univ., Univ. of Cambridge, Bogor Agr. Univ. (IPB)*.
- 3:00 K13 **450.23** • Development of mesenchymal stem cell therapy for the spinal cord injury induced bladder fibrosis. A. JIN; H. LEE*; Y. SONG; K. CHANG; S. LEE; S. KIM. *Chung-Ang Univ. Col. of Med., Soonchunhyang Univ. Sch. of Med., Natl. Primate Res. Center, Korea Res. Inst. of Biosci. and Biotech., Univ. of British Columbia*.
- 4:00 K14 **450.24** MicroRNA as potential targets to prevent delayed paralysis caused by aortic cross clamping in a mouse model of ischemic spinal cord injury. S. JANG*; E. TILI; P. G. POPOVICH; H. ELSAYED-AWAD. *The Ohio State Univ. Med. Ctr., The Ohio State Univ., The Ohio State Univ., The Ohio State Univ.*
- 1:00 L1 **450.25** Neuroprotection and production of neurotrophins by bone marrow mononuclear stem cells (BMSC) after ventral root avulsion (VRA) and fibrin sealant replantation. R. BARBIZAN; A. F. LONGHINI; A. M. GOES; B. BARRAVIERA; R. S. F. JUNIOR; A. L. OLIVEIRA*. *Univ. of Campinas - Lab. of Nerve Regeneration, Univ. of Campinas, UFMG, Cevap - Unesp*.
- 2:00 L2 **450.26** Effects of lumbosacral ventral root avulsion and replantation in a non-human primate model for cauda equina injury. M. OHLSSON*; J. H. NIETO; K. L. CHRISTE; L. A. HAVTON. *Karolinska Institutet, Univ. of California, Irvine, Univ. of California, Irvine, Univ. of California, Davis, Univ. of California, Irvine*.
- 2:00 L8 **451.06** An assay for the determination of D-kynurenine in biological samples. K. J. HORNING*; X. WANG; F. M. NOTARANGELO; R. SCHWARCZ. *Univ. of Maryland MPRC*.
- 3:00 L9 **451.07** The Lyme Disease Spirochete *Borrelia burgdorferi* induces inflammation in tissue explants and primary cultures of rhesus dorsal root ganglia (DRG) and concomitant neuronal apoptosis in DRG cells cultured *in vitro*. G. RAMESH*; F. M. INGLIS; M. T. PHILIPP. *Tulane Natl. Primate Res. Ctr., Tulane Univ.*
- 4:00 L10 **451.08** • A mouse model of anemia-independent chemotherapy-related fatigue (CRF). J. A. ZOMBECK*. *Biomodels*.
- 1:00 L11 **451.09** Degeneration of peripheral sensory neurons in zebrafish. H. M. POPE*; M. M. VOIGT. *St. Louis Univ.*
- 2:00 L12 **451.10** Mast cells can exacerbate stroke pathology in mice. A. ARAC*; M. A. GRIMBALDESTON; A. R. B. NEPOMUCENO; O. OLAYIWOLA; M. P. PEREIRA; H. VOGEL; M. TSAI; S. J. GALLI; T. M. BLISS; G. K. STEINBERG. *Stanford Univ., Stanford Stroke Ctr., Stanford Inst. for Neuro-Innovation and Translational Neurosciences, Ctr. for Cancer Biol., Stanford Univ., Stanford Univ.*
- 3:00 L13 **451.11** Regional distribution of TNFalpha receptors in the brain: A possible explanation for regional sensitivity to neuroinflammation? S. LIRAZ ZALTSMAN*; E. SHOHAMI; A. BIEGON. *The Hebrew Univ., The Joseph Sagol Neurosci. Center, Sheba Med. Ctr., Brookhaven Natl. lab.*
- 4:00 L14 **451.12** Kinetics of microglia migration after laser lesion analyzed by *in vivo* two-photon imaging. J. WAGNER*; L. SCHMID; H. COUTHION; K. KEPPLER; J. HERMS; M. FUHRMANN. *German Ctr. for Neurodegenerative Dis. (DZNE), Ludwig-Maximilians-University*.
- 1:00 L15 **451.13** Norepinephrine modulates microglial motility through Alpha2A and Beta2 receptors in activation status-dependent manner. S. F. TRAYNELIS*; S. GYONEVA; T. J. MURPHY. *Emory Univ. Sch. of Med.*
- 2:00 L16 **451.14** Microglial motility under pro-inflammatory conditions *in vivo*. S. GYONEVA*; D. DAVALOS; K. AKASSOGLOU; S. F. TRAYNELIS. *Emory Univ., Univ. of California, San Francisco*.
- 3:00 L17 **451.15** IFN γ induced gene expression during the course of experimental autoimmune encephalomyelitis: Focus on microglia. A. SOULIKA*; P. YAO; L. S. HEUER. *UC Davis Sch. of Med., Inst. for Pediatric Regenerative Med.*
- 4:00 L18 **451.16** N-cadherin cleavage in experimental autoimmune encephalomyelitis; implications for microglial activation. K. CONANT*; T. ABDI; D. BERAUD; I. LONSKAYA; A. EDWARDS; K. MAGUIRE-ZEISS. *Georgetown Univ., Georgetown Univ.*
- 1:00 L19 **451.17** The role of p53 family proteins in shaping microglial activation in neurodegeneration. J. JEBELLI*; J. M. POCKOCK. *Inst. of Neurol. Univ. Col. London, Inst. of Neurol.*
- 2:00 L20 **451.18** PGRN does not bind TNF receptors and is not a direct regulator of TNF-dependent inflammatory or neurotoxic activity. M. G. TANSEY*; X. CHEN; J. CHANG; J. XU; Q. DENG; J. CHUNG; B. CENIK; L. HERL MARTENS; T. NGUYEN; G. YU; J. HERZ; R. V. FARESE; T. KUKAR. *Emory Univ. Sch. of Med., Georgia Inst. of Technol., Emory Univ. Sch. of Med., UT Southwestern Med. Ctr., UCSF, UT Southwestern Med. Ctr., UCSF*.

POSTER

451. Neuroinflammation: Molecular Mechanisms II

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 L3 **451.01** ▲ *In vitro* protective effects of melatonin on cisplatin induced apoptosis of cancer cells: Involvement of Bax upregulation and the intracellular targeting of Bcl-2. V. SHANMUGAM; E. VARGHESE; A. M. FLOREA*; D. BÜSSELBERG. *Weill Cornell Med. Col. in Qatar, Neuropathology, Heinrich-Heine Univ. Dusseldorf*.
- 2:00 L4 **451.02** Changes in genes involved in the JAK/STAT signaling pathway in brains of diet-induced obese mice. S. H. LEE; C. AVOUNDJIAN; A. POLADIAN; L. R. BANNER*. *California State Univ. Northridge*.
- 3:00 L5 **451.03** Involvement of ERK1/2, STAT1 and reactive oxygen species in IFN-gamma-mediated inflammatory signaling in microglia. D. Y. CHUANG*; M. CHAN; Y. ZONG; J. JIANG; A. SIMONYI; A. Y. SUN; G. Y. SUN. *Univ. of Missouri, Tzu Chi Univ., Univ. of Missouri*.
- 4:00 L6 **451.04** • Upregulation of secretory phospholipase A2-group V in microglial cells: Involvement of interferon gamma, ERK1/2 and ROS. Y. ZONG*; J. JIANG; D. CHUANG; A. SIMONYI; G. SUN. *Univ. of Missouri*.
- 1:00 L7 **451.05** *In vivo* production of kynurenine pathway metabolites from D-tryptophan in mice. F. M. NOTARANGELO*; X. WANG; K. J. HORNING; R. SCHWARCZ. *Univ. of Maryland Sch. of Med.*

- 3:00 M1 **451.19** Radiation-induced changes in the growth hormone/IGF-1 axis in adult and aging rats. D. R. RIDDLE*; M. E. FORBES; M. PAITSEL. *Dept. Neurobio. and Anatomy, Wake Forest Sch. Med.*
- 4:00 M2 **451.20** Role of mitochondria in mediating oxaliplatin mediated toxicity. H. TABASSUM*; M. WASEEM; S. PARVEZ; M. I. QURESHI. *Jamia Milia Islamia, Hamdard Univ.*
- 1:00 M3 **451.21** Inhibition of Na⁺/Ca²⁺ exchanger (NCX) by SKF 96365 produces Ca²⁺ dependent activation of mitogen-activated protein kinase (MAPK) and cell cycle arrest in human glioblastoma cells. M. SONG*; S. YU. *Emory Univ. Sch. of Med.*

POSTER

452. Experimental Therapeutics in Animal Models of Psychosis II

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 M4 **452.01** Do 5-HT_{2A} receptors mediate clozapine induced locomotor suppression via histaminergic mechanisms? C. E. MCOMISH*; A. LIRA; J. B. HANKS; E. LAMARCA; J. A. GINGRICH. *Res. Fndn. For Mental Hyg., Columbia Univ., Howard Florey Inst., Mount Sinai.*
- 2:00 M5 **452.02** Neurological side effects due to GSK-3 inhibition by chronic lithium or transgenesis can be prevented by blocking NFAT/FAS pathway. R. GOMEZ-SINTES*; J. J. LUCAS. *Ctr. Biología Mol. severo Ochoa.*
- 3:00 M6 **452.03** Whether lithium and carbamazepine can treat the impairments of spatial learning and depressive responses in ouabain-induced bipolar disorder rats. A. C. HUANG*; Y. WANG; C. HUANG; E. WANG. *Fo Guang Univ., Dept. of Clin. Psychology, Fu Jen Catholic University, New Taipei City, Dept. of Psychology, Fo Guang University, Yilan County 26247, Taiwan, Dept. of Psychiatry, Shin-Kong Wu Ho-Su Mem. Hospital, Taipei, Taiwan.*
- 4:00 M7 **452.04** Nicotine ameliorates emotional and cognitive impairments induced by neonatal polyl:C treatment in mice. T. NAGAI*; J. YU; D. IBI; T. NABESHIMA; K. YAMADA. *Nagoya Univ. Grad Sch. Med., Meijo Univ.*
- 1:00 M8 **452.05** The effects of pregnenolone sulphate on schizophrenia-like behaviors in dopamine transporter knockout mice. P. WONG*; C. C. R. CHANG; X. ZHANG. *Duke-Nus Grad. Med. Sch.*
- 2:00 M9 **452.06** ● Effects of selective orexin 1 receptor antagonist on glutamate release and behavior in mouse model of schizophrenia. T. BERDYEEVA*; J. SHOBLOCK; L. ALUISIO; N. WELTY; I. FRASER; B. SHIREMAN; N. CARRUTHERS; T. LOVENBERG; P. BONAVENTURE. *Janssen LLC (Johnson & Johnson PRD), Janssen LLC (Johnson & Johnson PRD).*
- 3:00 M10 **452.07** Wnt signaling in antidepressive effects and neuroprotection: Pioglitazone as a novel treatment in mood disorders. H. LIN*; F. WAN. *Natl. Def. Med. Ctr., Natl. Def. Med. Ctr.*
- 4:00 M11 **452.08** Effect of perospirone on methamphetamine-induced disruption of latent inhibition in rats. H. MATSUO; H. ABE; N. OKADA; A. KURAMASHI; G. KOGANEMARU; H. FUNAHASHI; T. IKEDA; R. TAKEDA; K. EBIHARA; T. NISHIMORI; Y. ISHIDA*. *Dep Psychiatry, Fac of Med, Univ. Miyazaki, Div. Neurobio, Fac of Med, Univ. Miyazaki.*
- 1:00 M12 **452.09** ● Inhibition of organic cation transporter 3 potentiates the neurochemical effects of selective serotonin reuptake inhibitors. V. BENADE*; V. KANDIKERE; G. BHYRAPUNENI; S. IRAPPANAVAR; V. KANAMARLAPUDI; A. DAS; L. MANJUNATH; R. NIROGI. *Suven Life Sci. Ltd.*
- 2:00 M13 **452.10** The function of p-glycoprotein after the treatment with chronic antipsychotic drugs in mice brain. T. WATANABE*; K. OSADA; T. HAGA; Y. OGAWA; A. TAGUCHI; K. FUJIWARA; T. YANAGIDA; M. NAKANO; Y. SASUGA; H. MATSUI; N. YAMAGUCHI. *St. Marianna Univ. Sch. of Med.*
- 3:00 M14 **452.11** Poly-c-binding proteins in schizophrenia: a possible mechanism for tyrosine hydroxylase pathology. E. PEREZ-COSTAS*; J. RODRIGUEZ-PALLARES; R. C. ROBERTS; J. LABANDEIRA-GARCIA; M. MELENDEZ-FERRO. *Univ. Alabama Birmingham, Univ. of Santiago de Compostela.*
- 4:00 M15 **452.12** Withdrawal from chronic escalating methamphetamine produced a depressive like animal model: The role of neurogenesis and apoptosis. F. WAN; C. TSENG*; H. LIN. *Natl. Def. Med. Ctr., Veterans Gen Hosp-Kaohsiung, Natl. Def. Med. Ctr.*
- 1:00 M16 **452.13** ● Implication of the ERK/MAPK signaling pathway in antipsychotic-induced dopamine D₂ up-regulation and in the preventive effects of alpha-lipoic acid. S. GRIGNON*; C. DESMARAIS; P. SARRET; J. DESLAURIERS. *Univ. De Sherbrooke, Univ. de Sherbrooke.*
- 2:00 M17 **452.14** Chronic administration of antipsychotic drugs does not alter PCBP4 expression in the substantia nigra/ventral tegmental area. M. MELENDEZ-FERRO*; J. LABANDEIRA-GARCIA; R. C. ROBERTS; J. RODRIGUEZ-PALLARES; E. PEREZ-COSTAS. *Univ. Alabama Birmingham, Univ. of Santiago de Compostela.*
- 3:00 M18 **452.15** ● Antipsychotic efficacy with β-arrestin biased dopamine D₂ receptor ligands. W. C. WETSEL*; M. CHEN; R. M. RODRIGUIZ; J. A. ALLEN; B. L. ROTH; J. JIN; M. G. CARON. *Duke Univ. Med. Ctr., Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill, Duke Univ. Med. Ctr.*
- 4:00 M19 **452.16** Establishing the atypical antipsychotic drug clozapine as a discriminative stimulus in male and female B6129/F1 hybrid mice. K. A. WEBSTER*; J. H. PORTER. *Virginia Commonwealth Univ.*
- 1:00 M20 **452.17** Discriminative stimulus properties of the atypical antipsychotic amisulpride in C57BL/6 mice. T. J. DONAHUE*; K. A. WEBSTER; T. M. HILLHOUSE; E. O. DE OLIVEIRA; J. H. PORTER. *Virginia Commonwealth Univ., Georgetown Univ.*
- 2:00 N1 **452.18** Effects of risperidone treatment in adolescence on adult neuroinflammation and NMDA receptors in a developmental model of schizophrenia. J. DHAWAN*; S. HOROVITZ; R. CRISP; Y. PIONTKEWITZ; I. WEINER; A. BIEGON. *Brookhaven Natl. Lab., Tel Aviv Univ.*
- 3:00 N2 **452.19** Repeated quinpirole treatment reverses suppression of conditioned avoidance responding and induces ΔFosB in the rat nucleus accumbens. A. M. MAPLE*; E. M. NIKULINA; R. P. HAMMER, Jr. *Arizona State Univ., Univ. of Arizona Col. of Med.*
- 4:00 N3 **452.20** Glutaminase inhibition via genetic pharmacotherapy in adult mice attenuates amphetamine-induced locomotion pointing to therapeutic potential for the pharmacotherapy of schizophrenia. C. GELLMAN; R. ERNST; S. MINGOTE; S. RAYPORT*. *Columbia Univ., NYS Psychiatric Inst.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 N4 **452.21** Effects of chronic haloperidol treatment on neuron, astrocyte, and oligodendrocyte number and density. E. I. SYPEK; A. J. BECHTOLD-GOMPFF; C. S. JOHN; K. L. SMITH; D. ÖNGÜR; B. M. COHEN. *Harvard Med. Sch., Harvard Med. Sch.*

POSTER

453. Animal Models of Serious Mental Illness II

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

1:00 N5 **453.01** ● The eye - a window into the brain: Looking for retinal biomarkers of psychopathology. R. F. MILLER; M. ESGUERRA; E. GUSTAFSON; G. E. ROMERO; A. W. MACDONALD, III; C. G. SUMMERS; M. S. LEE; D. HENDERSON*; H. ROEMHILD; T. TAKARA. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

2:00 N6 **453.02** Abnormal prefrontal synaptic dynamics in PCP-induced developmental mouse model for deficit in short-term recognition memory. J. W. LOVELACE*; P. VIEIRA; E. KORZUS. *UC Riverside.*

3:00 N7 **453.03** Sensitization of CRF receptors after repeated NE receptor stimulation in BNST. A. K. RAJBHANDARI*; V. P. BAKSHI. *Univ. of Wisconsin.*

4:00 N8 **453.04** Afferent drive of medial prefrontal cortex by hippocampus and amygdala is altered in MAM-treated rats: Evidence for interneuron dysfunction. B. ESMAELI*; A. A. GRACE. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

1:00 N9 **453.05** ● Deficiency of Schnurri-2, an MHC enhancer binding protein, induces mild chronic inflammation in the brain and confers molecular, neuronal, and behavioral phenotypes related to schizophrenia. K. TAKAO*; H. HAGIHARA; K. OHIRA; K. TOYAMA; H. SHOJI; N. K. HIRONORI; S. HATTORI; H. KOSHIMIZU; J. UMEMORI; T. TAKAGI; N. WALTON; S. ISHII; M. MATSUMOTO; T. MIYAKAWA. *Natl. Inst. For Physiological Sci., Fujita Hlth. Univ., JST, CREST, RIKEN Tsukuba Inst., Aichi Prefectural Colony, Astellas Res. Inst. of America LLC.*

2:00 N10 **453.06** Behavioral state of model mice of bipolar disorder can be retrospectively predicted by gene expression in dentate gyrus and plasma metabolites. J. UMEMORI*; H. HAGIHARA; H. K. NAKAMURA; T. HORIKAWA; H. SHOJI; K. TOYAMA; Y. IRINO; M. YOSHIDA; Y. KAMITANI; T. MIYAKAWA. *Fujita Hlth. Univ., JST, CREST, NAIST, ATR Comput Neurosci Lab., Dep Biosci Genet, NCVCRI, Integr Cent Mass Spect, Kobe Univ. Grad Sch. Med., Div. Metab Res, Kobe Univ. Grad Sch. Med., Ctr. Gene Anal Behav, NIPS.*

3:00 N11 **453.07** Upregulation of mature form brain-derived neurotrophic factor and carboxypeptidase E, and ectopic expression of tyrosine kinase receptor B in the hippocampus of mice with maturation failure in dentate gyrus neurons. H. KOSHIMIZU*; K. OHIRA; H. HAGIHARA; K. TAKAO; T. TAKAGI; M. KATAOKA; S. ISHII; M. TAKAHASHI; T. MIYAKAWA. *Inst. for Comprehensive Med. Science, Fujita Hlth. Univ., Core Res. for Evolutional Sci. and Technol. (CREST), Japan Sci. and Technol. Agency, Section of Behavior Patterns, Ctr. for Genet. Analysis of Behavior Natl. Inst. for Physiological Sci., Lab. of Mol. Genetics, RIKEN Tsukuba Inst., Inst. for Developmental Research, Aichi Prefectural Colony, Dept. of Envrn. Sci. and Technology, Fac. of Engineering, Shinshu Univ., Dept. of Biochemistry, Kitasato Univ. Sch. of Med.*

4:00 N12 **453.08** Synapsin II knockdown in the medial prefrontal cortex results in hypofrontality and neurobiological correlates similar to that of schizophrenia. M. L. TAN*; L. P. MOLINARO; S. SHIVJI; R. K. MISHRA. *McMaster Univ.*

1:00 N13 **453.09** Perinatal NMDA antagonist treatment in rat does not consistently induce symptoms of schizophrenia. R. WILLEMS*; E. REDFERN; L. VER DONCK. *Janssen Res. & Development, A Div. of Janssen Pharmaceutica NV, Univ. of Bath.*

2:00 N14 **453.10** Chronic stress influences wheel-running activities in mutant Polg1 transgenic mice. F. SASAKI; M. KUBOTA*; T. KASAHARA; H. OKANO; T. KATO. *RIKEN Brain SciInst, keio university, school of medicine.*

3:00 N15 **453.11** Antagonism of ELR-CXC chemokine receptors during pregnancy prevents the long-term cognitive changes caused by maternal immune activation in rats. S. A. BALLENDINE; Q. GREBA; C. A. THAI; B. D. KLISCHUK; W. DAWICKI; J. R. GORDON; J. G. HOWLAND*. *Univ. Saskatchewan, Univ. Saskatchewan.*

4:00 N16 **453.12** AKT1 modulates the expression and function of GABAergic interneurons and GABA type A receptors *in vitro* and *in vivo*. C. CHANG; Y. CHEN; T. WANG; W. LAI*. *Natl. Taiwan Univ., Natl. Taiwan Normal Univ., Natl. Taiwan Univ., Natl. Taiwan Univ.*

1:00 N17 **453.13** Using MEMRI to visualize hallucinogenic-like activity in an awake, behaving mouse model of schizophrenia. J. J. GALLAGHER; N. V. MALKOVA*; C. Z. YU; P. H. PATTERSON. *California Inst. Technol.*

2:00 N18 **453.14** ▲ NR1-hypomorph mice display decreased response to oxytocin in lateral amygdala. K. ZHU*; S. CRANSTOUN; S. J. SIEGEL; G. C. CARLSON. *Univ. of Pennsylvania.*

3:00 N19 **453.15** ● Hippocampal interneuron transplants restore aberrant dopamine system function in a rodent model of schizophrenia. S. M. PEREZ*; D. J. LODGE. *UTHSCSA.*

4:00 N20 **453.16** ● Significantly down-regulated neurofilament expression in schizophrenia animal model SREB2/GPR85 Tg mice. Q. CHEN*; Y. ZHOU; S. MIYAKE; J. H. KOGAN; N. M. WALTON; R. SHIN; A. K. GROSS; C. L. HEUSNER; K. TAJINDA; K. TAMURA; M. MATSUMOTO. *CNS, Astellas Res. Inst. of America LLC, Northwestern Univ.*

1:00 O1 **453.17** Anxiety does not contribute to PCP-induced social withdrawal. A. SEILLIER*; A. GIUFFRIDA. *UTHSCSA, UTHSCSA.*

2:00 O2 **453.18** Maturation deficits of dentate granule cells in forebrain-specific calcineurin knockout mice is rescued by phosphodiesterase inhibitor treatment. H. HAGIHARA*; I. A. GRAEF; G. R. CRABTREE; T. MIYAKAWA. *Fujita Hlth. Univ., Japan Sci. and Technol. Agency, Stanford Univ. of Med., Natl. Inst. for Physiological Sci.*

3:00 O3 **453.19** Comparison of behavioral characteristics between genetic and pharmacological animal models of schizophrenia. Y. ARIME*; K. AKIYAMA. *Dokkyo Med. Univ. Sch. of Med.*

4:00 O4 **453.20** Reduction in firing activity of rat dopamine neurons by inhibition of kynurenine aminotransferase II. G. C. ENGBERG*; M. HAJOS; S. OLSSON; S. ERHARDT. *Karolinska Inst., Yale Univ. school of Med., Yale Univ. Sch. of Med., Karolinska Inst.*

1:00 O5 **453.21** ● Subchronic amphetamine treatment increases schedule-induced polydipsia in the rat. E. HAWKEN*; J. REYNOLDS; R. BENINGER. *Queen's Univ., Queen's Univ.*

- 2:00 O6 **453.22** ● Investigation of hippocampal-prefrontal cortex circuits in schizophrenia models using electroencephalography in rodents. S. TAKILLAH; B. TESOLIN-DECROS; C. SEBBAN; E. SCHENKER; M. SPEDDING; J. J. MARIANI*; P. FAURE. *UMR 7102 NPA, UPMC et CNRS, Inst. de la Longévité, Hôpital Charles Foix, Inst. de Recherches Servier, Les Laboratoires Servier, Univ. P & M Curie.*
- 3:00 O7 **453.23** Adolescent isolation-rearing produces an increase in surface expression of NMDA receptors in dendritic spines of basolateral amygdala pyramidal neurons in mice exhibiting select schizophrenia-like behaviors. J. O. GAN*; F. S. LOURENCO; V. M. PICKEL. *Weill Cornell Med. Col.*
- 4:00 O8 **453.24** ● Endogenous kynurenic acid modulates extracellular GABA levels in the rat prefrontal cortex. S. BEGGIATO*; L. FERRARO; S. TANGANELLI; K. FUXE; H. WU; R. SCHWARCZ. *Univ. of Ferrara, Karolinska Institute, Univ. of Maryland Sch. of Med.*
- 1:00 O9 **453.25** Mechanism of the schizophrenia-related cognitive control impairment by phencyclidine: Protein synthesis running wild? M. T. VAN DIJK*; E. WALLACE; J. ZHONG; J. M. ALARCON; A. A. FENTON. *New York Univ. Sch. of Med., State Univ. of New York, Downstate Med. Ctr., New York Univ., State Univ. of New York, Downstate Med. Ctr.*
- 2:00 O10 **453.26** Frontal cortical dysregulation following chronic haloperidol in rats. S. E. BACHUS*. *George Mason Univ.*
- 3:00 O11 **453.27** ▲ The effect of prenatal immune challenge on postnatal neurogenesis in the subventricular zone-olfactory bulb pathway. Y. LIU*; J. YU; T. WAMG; H. TSAY. *Natl. Yang-Ming Univ., Natl. Taiwan Normal Univ., Natl. Yang-Ming Univ.*
- 4:00 O12 **453.28** Reductions in both parvalbumin- and substance P-containing neurons in ventral CA3/dentate of the MAM rat model of schizophrenia. K. M. GILL*; A. A. GRACE. *Univ. Pittsburgh.*
- 1:00 O13 **453.29** Interactions between the mesocortical dopamine system and the local prefrontal GABAergic circuit are necessary for sustaining network stability for working memory processes. S. E. LEW; K. TSENG*. *Facultad de Ingeniería, Univ. de Buenos Aires, RFUMS/Chicago Med. Schl.*
- 2:00 O14 **453.30** Altered gene expressions and behavioral phenotypes of parvalbumin neuron-specific glutamate decarboxylase 67 (GAD67) knockout mice. K. FUJIHARA*; H. MIWA; T. KAKIZAKI; M. MIKUNI; C. TANAHIRA; N. TAMAMAKI; Y. YANAGAWA. *Gunma Univ. Grad. Sch. of Med., Gunma Univ. Grad. Sch. of Med., CREST, Kumamoto Univ. Grad. Sch. of Med. Sci.*
- 2:00 O16 **454.02** Histamine is not required in alcohol reward and stimulation but is important for blocking reward in mice. P. A. PANULA*; J. VANHANEN; S. NUUTINEN. *Univ. Helsinki.*
- 3:00 O17 **454.03** Positive modulation of amygdala AMPA receptors selectively increases operant alcohol self-administration in alcohol-preferring rats. R. CANNADY; K. R. FISHER; B. A. DURANT; J. BESHEER*; C. W. HODGE. *Univ. of North Carolina - Chapel Hill.*
- 4:00 O18 **454.04** Adverse childhood experiences predict heavier drinking and greater alcohol intake during intravenous (IV) alcohol self-administration in non-dependent drinkers. B. STANGL*; M. L. SCHWANDT; M. ZAMETKIN; V. A. RAMCHANDANI. *NIAAA.*
- 1:00 O19 **454.05** Trace amine associated receptor 1 (TAAR1) involvement in alcohol drinking behaviors. G. M. MILLER*; D. M. PLATT; E. J. VALLENDER; L. J. LYNCH; K. A. SULLIVAN; L. M. OGAWA. *Harvard Med. School/Neprc.*
- 2:00 O20 **454.06** Adenosine transporter ENT1 regulates the acquisition of goal-directed behavior through A2A receptor in the dorsomedial striatum and ethanol drinking. H. NAM*; D. J. HINTON; N. KANG; C. L. RUBY; S. CHANG; D. CHOI. *Mayo Clin. Col. of Med., Mayo Clin. Col. of Med.*
- 3:00 P1 **454.07** The reinforcing effects of ethanol within the posterior ventral tegmental area require activation of dopamine projections to the nucleus accumbens shell and ventral pallidum. Z. DING*; Z. A. RODD; W. J. MCBRIDE. *Indiana Univ. Sch. of Med.*
- 4:00 P2 **454.08** The role of Casein-kinase-1-epsilon/delta in preventing relapse-like alcohol drinking. C. CORTI*; V. VENGELENE; H. NOORI; E. MERLO-PICH; M. CORSI; R. SPANAGEL; S. PERREAU LENZ. *APTUIT Med. Res. Ctr., Central Inst. of Mental Hlth., Hoffmann-La-Roche, APTUIT Med. Res. Ctr.*
- 1:00 P3 **454.09** $\alpha 4\beta 2$ selective nicotinic acetylcholine receptor ligands decrease alcohol intake in high-alcohol-drinking University of Chile bibulous rats. R. SOTOMAYOR-ZARATE; K. GYSLING*; U. E. BUSTO; B. K. CASSELS; L. TAMPIER; M. E. QUINTANILLA. *Univ. de Valparaiso, Millennium Sci. Nucleus in Stress and Addiction (NEDA), Pontificia Univ. Catolica De Chile, Ctr. for Addiction Studies (CEDA-UC), Pontificia Univ. Catolica de Chile, Ctr. for Addiction and Mental Hlth. (CAMH) and Univ. of Toronto, Univ. de Chile, Univ. de Chile.*
- 2:00 P4 **454.10** Systemic administration of SB269970, a 5-hydroxytryptamine 7 (5-HT7) receptor antagonist, enhances alcohol-seeking behavior in alcohol preferring (P) rats. S. R. HAUSER*; G. A. DEEHAN, Jr.; J. E. TOALSTON; R. L. BELL; W. J. MCBRIDE; Z. A. RODD. *Indiana Univ. Sch. of Med.*
- 3:00 P5 **454.11** Neurochemical heterogeneity of rats predicted by different measures to be high ethanol consumers. J. R. BARSON*; S. E. FAGAN; G. CHANG; S. F. LEIBOWITZ. *The Rockefeller Univ.*
- 4:00 P6 **454.12** Mechanisms of regulation of ethanol intake by lateral habenula (LHb). J. YE*; W. ZUO; J. LI; G. XIE. *UMDNJ New Jersey Med. Sch., UMDNJ New Jersey Med. Sch.*
- 1:00 P7 **454.13** Developmental differences in ethanol preference in C57BL/6J and DBA/2J inbred mice. D. B. BOULDIN*; M. N. COOK. *The Univ. of Memphis.*

POSTER

454. Alcohol Reward and Reinforcement

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 O15 **454.01** Binge-like ethanol consumption alters corticotropin-releasing factor signaling in the ventral tegmental area of C57BL/6J mice. J. A. RINKER*; E. G. LOWERY-GIONTA; T. E. THIELE. *Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 P8 **454.14** Role of opioids in the medial prefrontal cortex during ethanol anticipation and consumption. I. MORGANSTERN*; S. C. LIANG; Z. YE; O. KARATAYEV; S. F. LEIBOWITZ. *Rockefeller Univ.*
- 3:00 P9 **454.15** Melanocortin receptor signaling in the lateral hypothalamus modulates binge-like ethanol consumption in C57BL/6J mice. G. M. SPROW*; T. E. THIELE. *Univ. North Carolina.*
- 4:00 P10 **454.16** The melanocortin (MC) receptor agonist, melanotan-ii (MTII), blunts binge-like ethanol drinking in mice via the MC-4 receptor (MC4R). J. OLNEY*; G. SPROW; T. THIELE. *Univ. of North Carolina At Chapel Hill.*
- 1:00 P11 **454.17** Nicotine pre-exposure alters reward-related responses to ethanol. W. M. DOYON*; Y. DONG; A. OSTROUMOV; J. A. DANI. *Baylor Col. of Med., Baylor Col. of Med.*
- 2:00 P12 **454.18** Mutations in the Gabr1 gene increase tonic inhibition and promote alcohol consumption. J. J. LAMBERT; E. P. MAGUIRE*; S. E. WALKER; D. N. STEPHENS; T. G. SMART; M. MORTENSEN; P. THOMAS; H. C. THOMAS; S. KNAPP; Q. M. ANSTEE; D. BELELLI. *Univ. of Dundee, Univ. of Dundee, Univ. of Sussex, Univ. Col. London, Imperial Col., Newcastle Univ.*
- 3:00 P13 **454.19** The role of dopamine d1- and d2-receptors in pavlovian cue-driven alcohol seeking: Vendor differences in male, long-evans rats. L. M. SPARKS*; J. SCIASCIA; Z. AYORECH; A. HEIDARI-JAM; N. CHAUDHRI. *Concordia Univ.*
- 4:00 P14 **454.20** Role of histone H3 acetylation in ethanol relapse. K. MIZUO*; R. KATADA; S. OKAZAKI; K. TATEDA; S. WATANABE; H. MATSUMOTO. *Sapporo Med. Univ.*
- 1:00 P15 **454.21** Orexin-1 signalling in the prelimbic cortex regulates reinstatement of alcohol-seeking in rats. R. M. BROWN*; A. K. KIM; J. H. KIM; S. Y. KHOO; B. JUPP; A. J. LAWRENCE. *Florey Neurosci. Inst., Med. Univ. of South Carolina, Ctr. for Neurosci. Res., Univ. Federal de São Paulo, Exptl. Psychology.*
- 2:00 P16 **454.22** Consumption of ethanol during operant self-administration is not attenuated by a dopamine D1 receptor antagonist in nucleus accumbens of adult male Long-Evans rats. J. M. DOHERTY*; R. A. GONZALES. *Univ. of Texas at Austin, Univ. of Texas at Austin, Univ. of Texas at Austin.*
- 4:00 P20 **455.04** Acute and chronic inhibition of dopamine D1 receptors in the insular cortex decrease nicotine self-administration in rats. M. G. KUTLU; D. BURKE; S. SLADE; J. E. ROSE*; E. D. LEVIN. *Duke Univ., Duke Univ., Duke Univ.*
- 1:00 Q1 **455.05** • The alpha4beta2 nicotinic desensitizing agent VMY-2-95 decreases nicotine self-administration in rats. S. SLADE; C. WELLS; D. BURKE; J. E. JOHNSON; A. H. REZVANI; K. J. KELLAR; Y. XIAO; V. M. YENUGONDA; M. PAIGE; M. BROWN; E. D. LEVIN*. *Duke Univ. Med. Ctr., Duke Univ., Georgetown Univ.*
- 2:00 Q2 **455.06** Genomic and pharmacologic antagonism of ghrelin receptors diminishes nicotine self-administration and the development of nicotine locomotor sensitization. P. S. CLIFFORD*; J. A. RODRIGUEZ; P. J. WELLMAN; J. FEHRENTZ; J. MARTINEZ. *Texas A&M Univ., Inst. des Biomolécules Max Mousseron.*
- 3:00 Q3 **455.07** Hypocretin-1 (orexin-1) signaling in the lateral habenula regulates nicotine reinforcement. J. A. HOLLANDER*; L. M. TUESTA; P. J. KENNY. *The Scripps Res. Inst.*
- 4:00 Q4 **455.08** Role of glucagon-like peptide-1 (GLP-1) receptors in nicotine reinforcement. L. M. TUESTA*; C. D. FOWLER; Q. LU; P. J. KENNY. *The Scripps Res. Inst.*
- 1:00 Q5 **455.09** Mecamylamine attenuates IV nicotine self-administration in wildtype, but not alpha4-S248F knock in mice, implicating a modulatory role for alpha4* nicotinic acetylcholine receptors in nicotine reward. H. MADSEN*; H. S. KOGHAR; J. DRAGO; A. J. LAWRENCE. *Florey Neurosci. Inst., Ctr. for Neurosci.*
- 2:00 Q6 **455.10** Prenatal exposure to nicotine increases nicotine self-administration in adult rats. J. S. VIT*; L. M. LACAYO; C. B. FARROKHI; S. M. CARMONA; C. M. ABUYO; R. N. PECHNICK. *Cedars-Sinai Med. Ctr.*
- 3:00 Q7 **455.11** Nucleus accumbens and anterior cingulate ERK differentially motivate self-administration of nicotine during daily exposure and following protracted abstinence. D. H. BRUNZELL*; L. E. THOMPSON; J. M. LEE. *Virginia Commonwealth University, MCV.*
- 4:00 Q8 **455.12** Effects of clonidine and pyrilamine on nicotine self administration in the female rat. N. L. SCHRAMM-SAPYTA*; E. P. FOSCUE; J. E. ROSE; E. D. LEVIN. *Duke Univ. Med. Ctr.*
- 1:00 Q9 **455.13** The sensitivity to the reinforcing actions of nicotine in the nucleus accumbens shell is enhanced only by a history of ethanol and nicotine co-abuse. G. A. DEEHAN*; S. R. HAUSER; J. A. WILDEN; W. J. MCBRIDE; Z. A. RODD. *Indiana Univ., Indiana Univ. Sch. of Med.*
- 2:00 Q10 **455.14** Acute and chronic administration of acetylcholinesterase inhibitors attenuates nicotine taking and seeking in rats. B. KIMMEY*; L. RUPPRECHT; M. HAYES; H. D. SCHMIDT. *Univ. of Pennsylvania.*
- 3:00 Q11 **455.15** Co-activation of VTA DA and GABA neurons mediates nicotine reinforcement. S. TOLU; R. EDDINE; F. MARTI; V. DAVID; M. GRAUPNER; S. PONS; M. BAUDONNAT; M. HUSSON; M. BESSON; A. HAY; B. LAMBOLEZ; J. CABOCHE; B. GUTKIN; A. GARDIER; B. CAULI*; J. CHANGEUX; P. FAURE; U. MASKOS. *CNRS - UPMC, CNRS-Université de Bordeaux, NYU, Inst. Pasteur, INSERM-CNRS-UPMC, ENS, Univ. Paris Sud.*
- 4:00 Q12 **455.16** Role of Alpha5* nicotinic receptors in the Ventral Tegmental Area. C. MOREL; S. PONS; U. MASKOS*; P. FAURE. *CNRS, Inst. Pasteur.*

POSTER

455. Nicotine Reward and Reinforcement

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 P17 **455.01** Chronic nicotine exposure depresses dopamine release in nonhuman primate nucleus accumbens. X. A. PEREZ*; J. LY; J. M. MCINTOSH; M. QUIK. *SRI Intl., Univ. of Utha.*
- 2:00 P18 **455.02** Varenicline is a potent partial agonist at $\alpha 6\beta 2^*$ nAChRs in rat and monkey striatum. T. BORDIA*; M. HRACHOVA; M. CHIN; J. M. MCINTOSH; M. QUIK. *SRI Intl., Univ. of Utah.*
- 3:00 P19 **455.03** Activation of $\alpha 6\beta 2^*$ nicotinic acetylcholine receptors is sufficient for nicotine reward. R. M. DRENAN*; S. ENGLE; H. A. LESTER; J. M. MCINTOSH; D. H. BRUNZELL. *Purdue Univ., California Institute of Technol., Univ. of Utah, Virginia Commonwealth Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 Q13 **455.17** The effect of contextual stimuli previously paired with non-contingent nicotine on the subsequent acquisition of nicotine self-administration. N. M. NEUGEBAUER*; J. J. CORTRIGHT; G. R. SAMPEDRO; P. VEZINA. *Univ. Of Chicago*.
- 2:00 Q14 **455.18** Cigarette smoke extract is more reinforcing than nicotine in rat self-administration tests. M. R. COSTELLO*; J. D. BELLUZZI; F. M. LESLIE. *UC Irvine*.
- 3:00 Q15 **455.19** Alpha3-containing nicotinic acetylcholine receptors expressed in the habenulo-interpeduncular pathway regulate nicotine reinforcement. C. D. FOWLER*; Q. LU; P. J. KENNY. *The Scripps Res. Inst.*

POSTER

456. Drugs of Abuse and Addiction: Neural Mechanisms II

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 Q16 **456.01** Viral-mediated transfer of DREADD receptors reveals a corticostriatal pathway involvement in motivation for cocaine self-administration. K. A. KERSTETTER*; J. F. NEUMAIER; S. M. FERGUSON. *Ctr. For Integrative Brain Research, Seattle Children's Res. Inst., Univ. of Washington, Univ. of Washington*.
- 2:00 Q17 **456.02** Proteomic analysis of the nucleus accumbens of GSTpi knockout mice using isotope-coded affinity tags and matrix-assisted laser desorption/ionization-time of flight (MALDI-TOF/TOF) mass spectrometry. J. D. UYS*; W. REEDER; S. COMTE-WALTERS; L. BALL; D. M. TOWNSEND; K. D. TEW. *Med. Univ. South Carolina, Med. Univ. South Carolina*.
- 3:00 Q18 **456.03** Prefrontal synaptic markers of cocaine addiction-like behavior in rats. F. KASANETZ*; M. LAFOURCADE; V. DEROCHÉ-GAMONET; J. REVEST; N. BERSON; E. BALADO; J. FIANCETTE; P. RENAULT; P. PIAZZA; O. J. MANZONI. *Inserm U862 - Neurocentre Magendie, Univ. Bordeaux, Inserm U862 - Neurocentre Magendie, INSERM U901, INMED, Univ. de la Méditerranée*.
- 4:00 Q19 **456.04** • The combination of metyrapone and oxazepam attenuates cocaine-induced increases in corticosterone in the medial prefrontal cortex. C. M. KELLER*; G. F. GUERIN; N. E. GOEDERS. *Louisiana State Univ. Hlth. Sci. Center-Shreveport*.
- 1:00 Q20 **456.05** A role for the Parkinson's disease-related protein DJ-1 in cocaine-induced reward acquisition. A. B. MANNING-BOG; A. S. MOALEM; V. CHOU*; N. KO; T. V. KHROYAN. *SRI Intl.*
- 2:00 R1 **456.06** Cocaine induces distinct redox status in the rat nucleus accumbens and dorsal striatum. S. TODA*; S. KOSUGI; Y. IGUCHI; Y. MINABE. *Kanazawa Univ. Sch. of Med., Kanazawa Univ. Sch. of Med.*
- 3:00 R2 **456.07** Rapid, experience-dependent changes in nucleus accumbens glutamate release: High-speed amperometry coupled with enzyme-based sensors in freely moving rats. K. T. WAKABAYASHI*; E. A. KIYATKIN. *NIH/NIDA*.
- 4:00 R3 **456.08** Factors influencing the effects of thalamic trigeminal orosensory lesions. J. E. NYLAND*; P. S. GRIGSON. *Pennsylvania State Univ.*
- 1:00 R4 **456.09** Leptin in the ventral tegmental area inhibits cocaine-induced conditioned place preference in cocaine self-administration trained rats. Z. YOU*; B. WANG; L. OTVOS JR; R. WISE. *NIDA-IRP/NIH/DHHS, Temple Univ.*
- 2:00 R5 **456.10** • Glycogen synthase kinase-3 β in the ventral tegmental area mediates diurnal variations in cocaine-induced conditioned place preference in rats. S. LI*; Y. Y. M. WEI; H. H. S. SHI; Y. Y. X. LUO; Z. Z. B. DING; Y. Y. X. XUE; L. L. LU; C. C. X. YU. *Natl. Inst. On Drug Dependence, Peking Univ., Inst. of Basic Medical, Fujian Med. University, Fuzhou, China, Col. of Pharmacy, Fujian Med. Univ.*
- 3:00 R6 **456.11** Prenatal cocaine-induced cognitive deficits and epigenetic modifications in the mPFC of adult mice. Z. R. DARUWALLA*; A. M. RAJADHYAKSHA; B. E. KOSOFKY. *Dept. of Neuroscience, Weill Cornell Grad. Sch. of Biomed. Sci.*
- 4:00 R7 **456.12** The role of prefrontal cortical Cav1.2 channels in the extinction of cocaine conditioned place preference. A. S. LEE*; S. MOOSMANG; F. HOFMANN; M. J. GLASS; A. M. RAJADHYAKSHA. *Weill Cornell, Tech. Univ. Munich, Tech. Univ. Munich, Weill Cornell Med. Col., Weill Cornell Med. Col.*
- 1:00 R8 **456.13** Role of AMPA receptor GluA1 phosphorylation and trafficking in acquisition, extinction, and reinstatement of cocaine conditioned place preference. K. C. SCHIERBERL*; R. HUGANIR; A. M. RAJADHYAKSHA. *Dept. of Neuroscience, Weill Cornell Grad. Sch. of Biomed. Sci., Johns Hopkins Univ., Weill Cornell Grad. Sch. of Biomed. Sci.*
- 2:00 R9 **456.14** Excitability of mPFC pyramidal neurons was increased in rats trained to self-administer cocaine followed by a protracted withdrawal: Acute effects of HIV-1 Tat. W. N. WAYMAN*; T. C. NAPIER; X. HU. *Rush Univ., Rush Univ. Med. Ctr., Chicago Developmental Ctr. for AIDS Res.*
- 3:00 R10 **456.15** Repeated cocaine exposure enhanced HIV-1 Tat-induced cortical excitability via over-activation of L-type calcium channels. X. HU*; L. CHEN; T. C. NAPIER. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr., Chicago Developmental Ctr. for AIDS Res.*
- 4:00 R11 **456.16** Extinction of long access cocaine self-administration is associated with augmented AMPA and reduced mGluR5 signaling in prefrontal cortex and nucleus accumbens. M. GHASEMZADEH*; P. VASUDEVAN; C. GILES; A. PURGIANTO; C. SEUBERT; J. R. MANTSCH. *Marquette Univ.*
- 1:00 R12 **456.17** Role of metabotropic glutamate receptor 5 (mGluR5) within the nucleus accumbens shell and expression patterns of mGluR5 and Homer1b/c during environmental-elicited cocaine conditioning. A. MARTINEZ*; E. RODRIGUEZ-BORRERO; C. S. MALDONADO-VLAAR. *Univ. Puerto Rico, RP.*
- 2:00 R13 **456.18** Cocaine-evoked synaptic potentiation in the lateral habenula. M. MAMELI*; M. MAROTEAUX. *Inserm UMR S839, Inst. Du Fer A Moulin.*
- 3:00 R14 **456.19** ERK 2 regulates metabotropic glutamate receptor-1a in cocaine addiction. J. YANG*; J. OH; M. GUO; D. JIN; L. MAO; J. WANG; E. CHOE. *Pusan Natl. Univ., Univ. of Missouri-Kansas City.*
- 4:00 R15 **456.20** Hypothalamic Orexin/Hypocretin neurons are preferentially recruited during drug seeking: Comparison with natural reward seeking. R. MARTIN-FARDON*; G. CAUVI; T. M. KERR; F. WEISS. *The Scripps Res. Inst.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 R16 **456.21** Peripheral neural mechanisms of HT7 inhibition in cocaine-induced behavioral activity. S. KIM*; H. KIM; E. JANG; M. YEO; D. KIM; B. LEE; C. YANG. *Daegu Haany Univ.*
- 2:00 R17 **456.22** Regulation of serotonin circuits through 5-HT_{2C} receptor and gaba-mediated networks during cocaine withdrawal-induced anxiety. C. CRAIGE*. *Temple Univ. Sch. of Medicine, Dept. of Pharmacol.*
- 3:00 R18 **456.23** Effects of cocaine self-administration on astrocytes in the nucleus accumbens. K. J. REISSNER*; H. A. BOGER; P. TRAN; P. W. KALIVAS. *Med. Univ. South Carolina.*
- 4:00 R19 **456.24** Long lasting effect of chronic cocaine on cerebral metabolic function in rhesus macaque monkeys. J. N. PORTER*; D. MINHAS; B. J. LOPRESTI; J. C. PRICE; K. GURNSEY; C. W. BRADBERRY. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 1:00 R20 **456.25** Locomotor sensitization to cocaine using a two-injection protocol requires eukaryotic elongation factor-2 kinase (EF2K)-mediated translational control. S. L. WISEMAN*; A. G. RYAZANOV; J. R. TAYLOR; A. C. NAIRN. *Yale Univ., UMDNJ - RWJMS.*
- 2:00 S1 **456.26** The role of a microRNA, miR-495, in regulating target gene expression and cocaine self-administration in rats. R. M. BASTLE*; N. P. PENTKOWSKI; M. N. TURK; M. D. ADAMS; A. L. BERGER; N. PERRONE-BIZZOZERO; J. L. NEISEWANDER. *Arizona State Univ., Arizona State Univ., Univ. of New Mexico.*

POSTER

457. Stimulant Drug Abuse: Neural and Behavioral Consequences

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 S2 **457.01** • Unique and common neurocognitive effects of opiate and stimulant addiction observed in protracted abstinence. J. L. VASSILEVA*; K. BOZGUNOV; R. NASLEDNIKOVA; I. RAYNOV; G. VASILEV. *Univ. Illinois, Chicago, Bulgarian Addictions Inst.*
- 2:00 S3 **457.02** Double dissociation of stimulant and opiate addiction on reward sensitivity and loss aversion. W. AHN*; G. VASILEV; J. R. BUSEMEYER; J. K. KRUSCHKE; J. VASSILEVA. *Indiana Univ, Bloomington, Univ. of Illinois - Chicago, Bulgarian Addictions Inst., Univ. of Illinois - Chicago.*
- 3:00 S4 **457.03** Methamphetamine dependent individuals show attenuated cingulate activity during risk-taking decision-making. J. L. GOWIN*; A. C. MAY; J. L. STEWART; T. M. FLAGAN; M. P. PAULUS. *Univ. of California-San Diego.*
- 4:00 S5 **457.04** Effects of amphetamine on impulsive-like behavior and gene expression in Lewis and Fischer-344 rats. P. V. HOLMES*; J. MACKILLOP; O. EKELEDO; B. SADLER; R. WALSH; W. TUNG; J. GROVES-CHAPMAN; N. R. SCIOILINO. *Univ. Georgia.*
- 1:00 S6 **457.05** Stress-induced increases in extracellular serotonin in the ventral hippocampus is attenuated in rats following amphetamine withdrawal. H. LI; J. E. HASSELL; J. L. SCHOLL; M. J. WATT; K. J. RENNER*; G. L. FORSTER. *Univ. South Dakota, Sanford Sch. of Med.*
- 2:00 S7 **457.06** Offspring of mice selected for high levels of methamphetamine consumption show impaired spatial memory retention and reduced sensitivity to effects of methamphetamine on circadian activity. R. J. OLSEN; C. N. ALLEN*; T. J. PHILLIPS; J. K. BELKNAP; V. DERKACH; J. RABER. *Oregon Hlth. Sci. Univ., Oregon Hlth. Sci. Univ., Oregon Hlth. Sci. Univ., Portland VA Med. Ctr., Oregon Hlth. Sci. Univ., Oregon Hlth. Sci. Univ., Oregon Hlth. Sci. Univ.*
- 3:00 S8 **457.07** Withdrawal from d-amphetamine alters 5-HT_{2A} receptor expression in the prefrontal cortex and impacts performance on the forced swim test. R. C. MURRAY; J. C. HEBBARD; A. S. LOGAN; G. A. VANCHIPURAKEL; Y. E. GILBERT; K. A. HORNER*. *Mercer Univ. Sch. Med., Mercer Univ. Sch. of Med.*
- 4:00 S9 **457.08** Interaction between delay and effort on a behavioral regulation task in rats: Effects of methamphetamine. J. B. RICHARDS*; D. R. LLOYD. *Res. Inst. On Addictions, Res. Inst. on Addictions, Univ. at Buffalo.*
- 1:00 S10 **457.09** Binge cocaine induced deficits in trace fear conditioning in C57BL6 mice: Neural and epigenetic substrates. J. D. RAYBUCK*; K. M. LATTAL. *OHSU.*
- 2:00 S11 **457.10** Daily treatment with the dopamine 2/3 receptor agonist pramipexole enhances the cardiovascular and subjective effects of cocaine in cocaine-dependent volunteers. T. F. NEWTON*; C. N. HAILE; R. D. L. GARZA, II; J. J. MAHONEY, III. *Baylor Col. of Med.*
- 3:00 S12 **457.11** Differential effects of chronic cocaine administration on short term memory and reversal spatial learning in Lewis and Fischer 344 rats. A. FOLE; E. AMBROSIO; L. F. ALGUACIL*; N. DEL OLMO. *Univ. San Pablo-CEU, Pharm. Fac., UNED, Psychology Fac., Hosp. Gen. Ciudad Real.*
- 4:00 S13 **457.12** ▲ Increased anxiotypic behavior and changes in oxytocin/vasopressin receptor expression during acute withdrawal from extended cocaine self-administration in rats. K. T. BROWN*; R. P. WATERS; M. G. RUSCIO; C. M. REICHEL; R. E. SEE. *Col. of Charleston, The Berlin Mouse Clin., Med. Univ. of South Carolina.*
- 1:00 S14 **457.13** ▲ Methamphetamine-induced memory deficits and perirhinal cortex NMDA receptors. M. J. GILSTRAP; C. M. REICHEL; R. E. SEE*. *Col. of Charleston, Med. Univ. of South Carolina.*
- 2:00 S15 **457.14** Addiction history and COMT genotype are independently associated with impairments in learning and replacing arbitrary stimulus-response associations. T. MCKIM*; C. BOETTIGER. *Univ. of North Carolina At Chapel Hill, Univ. of North Carolina At Chapel Hill.*

POSTER

458. Drugs Abuse and Addiction: Genetics

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 S16 **458.01** Influence of the DRD3 Ser9Gly functional polymorphism on [F-18]-fallypride binding in the nucleus accumbens. C. L. ROBERTSON*; K. ISHIBASHI; E. L. NURMI; M. A. MANDELKERN; E. D. LONDON. *UCLA, Veterans Affairs Greater Los Angeles Hlth. Care Syst., UCLA.*
- 2:00 S17 **458.02** Gene co-expression networks in rat blood in response to cocaine self-administration. R. D. MAYFIELD*; G. R. TIWARI; R. G. FOX; K. A. CUNNINGHAM. *Univ. Texas-Austin, Univ. of Texas Med. Br.*

- 3:00 S18 **458.03** Cannabinoid receptors: Gene structures, snps, cnvs, cpG islands, microrna regulation and variation in neuropsychiatric disorders. H. ISHIGURO*; G. UHL; E. ONAIVI. *Univ. of Yamanashi, Mol. Neurobio. Branch, NIDA-NIH, William Paterson Univ.*
- 4:00 S19 **458.04** Mesolimbic gene networks associated with voluntary nicotine intake in adolescent inbred rats. B. M. SHARP*; R. LUO; S. GONG; W. L. TAYLOR; D. H. GESCHWIND; H. CHEN; S. G. MATTA. *Univ. Tennessee Hlth. Sci. Ctr., Univ. of California, Univ. Tennessee Hlth. Sci. Ctr.*
- 1:00 S20 **458.05** Different genetic factors contribute to waiting impulsivity and checking compulsivity in the 5-Choice serial reaction time task in mice: A BXD recombinant inbred strain analysis. D. N. STEPHENS; S. SANCHEZ-ROIGE; S. L. RULTEN; F. M. PEARL; G. SCHUMANN; Y. PENA-OLIVER*. *Univ. of Sussex, Univ. of Sussex, Inst. of cancer Res., Inst. of Psychiatry, Kings Col., Univ. of Sussex.*
- 2:00 T1 **458.06** The intersection of genes, drinking behaviors, and neurocardiac dynamics. J. F. BUCKMAN*; M. E. BATES; S. BUYSKE; T. NGUYEN; B. VASCHILLO; M. JALIL; E. VASCHILLO. *Rutgers Univ.*
- 3:00 T2 **458.07** ▲ Two epigenetic mechanisms regulate prodynorphin in human brain: Adaptations in alcoholics. I. BAZOV; O. KONONENKO; H. WATANABE; D. VERBEEK; M. TAQI; K. ALKASS; H. DRUID; T. YAKOVLEVA; G. Y. BAKALKIN*. *Dept. of Pharmaceut. Biosciences, Uppsala Univ., Univ. Med. Ctr., Karolinska Inst.*
- 4:00 T3 **458.08** Characterization of neurons derived from human iPSC carrying addiction risk-associated gene variants. E. ONI; A. KANG; A. TORO-RAMOS; J. C. MOORE; J. BABIARZ; J. A. TISCHFIELD; Z. P. PANG; R. P. HART*. *Rutgers Univ., UMDNJ-Robert Wood Johnson Med. Sch.*
- 1:00 T4 **458.09** Genetic factors control nicotine self-administration in isogenic adolescent rat strains. S. G. MATTA*; H. CHEN; K. HILER; E. A. TOLLEY; B. M. SHARP. *Univ. Tennessee Hlth. Sci. Ctr., Univ. Tennessee Hlth. Sci. Ctr.*
- 2:00 T5 **458.10** Conditioned taste aversion to cocaine and ethanol in mice bred for high and low methamphetamine drinking. N. R. GUBNER*; J. M. WHEELER; C. REED; T. J. PHILLIPS. *Oregon Hlth. & Sci. Univ., Methamphetamine Abuse Res. Center, and Portland Alcohol Res. Ctr., Portland VA Med. Ctr.*
- 3:00 T6 **458.11** Buprenorphine pretreatment reduces methamphetamine intake in mice selectively bred to drink high amounts of methamphetamine. E. C. EASTWOOD*; T. J. PHILLIPS. *Oregon Hlth. & Sci. Univ., Methamphetamine Abuse Res. Ctr., Veterans Affairs Med. Ctr.*
- 4:00 T7 **458.12** Cocaine induced transcriptome and epigenome changes in mouse nucleus accumbens. J. FENG*; M. WILKINSON; X. LIU; D. FERGUSON; V. VIALOU; P. KENNEDY; J. KOO; C. DIAS; N. SHAO; I. MAZE; B. LAITMAN; Q. LAPLANT; M. CAHILL; L. SHEN; E. J. NESTLER. *Mount Sinai Sch. of Med.*
- 1:00 T8 **458.13** High-precision systems genetic analysis of behavior in the diversity outbred mouse population. R. W. LOGAN*; R. F. ROBLEDO; N. RAGHUPATHY; C. A. PHILLIPS; J. M. RECLA; V. M. PHILIP; J. A. BUBIER; J. J. JAY; T. WILCOX; D. M. GATTI; M. A. LANGSTON; C. J. BULT; M. A. HIBBS; G. A. CHURCHILL; E. J. CHESLER. *The Jackson Lab., Univ. of Tennessee.*
- 2:00 T9 **458.14** Lower glutamate-associated gene expression in the accumbens shell of alcohol-preferring P vs Wistar rats across peri-adolescence. R. L. BELL*; W. A. TRUITT; Z. A. RODD; J. E. TOALSTON; S. R. HAUSER; W. J. MCBRIDE. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*
- 3:00 T10 **458.15** Serotonin transporter and receptor genes impact significantly on nicotine dependence through genetic interactions in both European and African American smokers. Z. YANG; C. SENEVIRATNE; S. WANG; J. Z. MA; T. J. PAYNE; J. WANG; M. D. LI*. *Univ. of Virginia, Univ. of Virginia, Univ. of Mississippi Med. Ctr., Shanxi Agr. Univ.*
- 4:00 T11 **458.16** Oxycodone-induced conditioned place preference in an LG/J x SM/J F47/F48 advanced intercross line. C. D. BRYANT*; M. A. GUIDO; L. A. KOLE; N. M. GONZALES; J. DAVIS; S. GOPALAKRISHNAN; R. CHENG; A. A. PALMER. *Univ. Chicago.*
- 1:00 T12 **458.17** MicroRNAs (miRs) and addiction: Phenotypic response to drugs of abuse and alcohol is correlated with the expression of key genes involved in miR biogenesis using a genetically diverse population. C. S. DUBOSE*; M. K. MULLIGAN; R. W. WILLIAMS; L. LU; K. M. HAMRE. *Univ. of TN Hlth. Sci. Ctr.*
- 2:00 T13 **458.18** Gender specific differences to cocaine-induced suppression of saccharin intake in OPRM1 A118G mice. C. G. IMPERIO*; S. M. BALLARD; C. S. FREET; V. RUIZ-VELASCO; P. S. GRIGSON. *Penn State Univ. Col. of Med., Penn State Univ. Col. of Med.*

POSTER

459. Cocaine and Other Psychostimulants: Toxicity

Theme C: Disorders of the Nervous System

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 T14 **459.01** Estradiol enhances cocaine-induced sensitization differently in male and female adult rats. K. HANCOCK; N. SIEGAL; D. L. DOW-EDWARDS*. *SUNY Downstate.*
- 2:00 T15 **459.02** Upregulation of conventional protein kinase C phosphorylation and translocation in the rat nucleus accumbens following cocaine administration. B. XUE*; T. J. BERRY; M. GUO; D. JIN; E. E. FIBUCH; L. MAO; J. Q. WANG. *UMKC Sch. of Med., UMKC Sch. of Med.*
- 3:00 T16 **459.03** Disrupted glucose metabolism in central white matter fiber tracts of nonhuman primates following prolonged cocaine self-administration. H. R. SMITH*; A. WILLIAMS; T. J. R. BEVERIDGE; M. A. NADER; L. J. PORRINO. *Wake Forest Sch. of Med.*
- 4:00 T17 **459.04** Behavioral and neurochemical after-effects of designer drugs mephedrone and methylone. B. DEN HOLLANDER; A. LINDEN; S. ROZOV; I. OJANPERÄ; E. R. KORPI*. *Univ. of Helsinki.*
- 1:00 T18 **459.05** ● Modafinil treatment counteracts methamphetamine-induced glial activation in mice striatal tissue. M. RAINERI*; B. GONZALEZ; B. GOITIA; V. PESKIN; E. GARCIA-RILL; F. J. URBANO; V. BISAGNO. *ININFA, Inst. De Investigaciones Farmacologicas, ININFA (UBA-CONICET), IFIByNE (UBA-CONICET), Univ. of Arkansas for Med. Sci.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 T19 **459.06** Modafinil treatment prevents methamphetamine-triggered effects on pro-apoptotic BAX and anti-apoptotic Bcl-2 protein expression in mice striatum. B. GONZALEZ; M. RAINERI; E. GARCIA-RILL; I. N. KRASNOVA; J. L. CADET; F. J. URBANO; V. BISAGNO*. *ININFA-CONICET, Univ. of Arkansas for Med. Sci., NIDA Intramural Program, IFIByNE (UBA-CONICET).*
- 3:00 T20 **459.07** ▲ Effects of drug polyconsumption in the attentional processes. I. J. ROSEMBERG GARCIA*; A. RUIZ-GARCIA; R. CASTAÑEDA-GARRIDO; R. MENDOZA-CARRILLO; D. MORALES-AGUILAR; D. PAZ-TREJO; H. SANCHEZ-CASTILLO; P. ZARATE-GONZALES. *Univ. Nacional Autonoma De Mexico, Clave Consultora para la Ciudadania.*
- 4:00 U1 **459.08** ▲ Impairment of executive functions in patients with polydrug habits. A. RUIZ GARCIA*; I. ROSEMBERG-GARCIA; D. MORALES-AGUILAR; R. CASTAÑEDA-GARRIDO; R. MENDOZA-CARRILLO; D. PAZ-TREJO; H. SANCHEZ-CASTILLO; P. ZARATE-GONZALES. *UNAM, Clave Consultora para la Ciudadania.*
- 1:00 U2 **459.09** ▲ Effects of Polydrug consumption on visual and verbal memory tasks. D. B. PAZ-TREJO*; A. RUIZ-GARCIA; I. ROSEMBERG-GARCIA; R. I. CASTAÑEDA-GARRIDO; R. MENDOZA-CARRILLO; D. D. MORALES-AGUILAR; P. ZARATE-GONZALEZ; B. J. VAZQUEZ-RAMIREZ; H. SANCHEZ-CASTILLO. *Univ. Nacional Autonoma de Mexico, Clave Consultora Para la Ciudadania AC, Univ. Nacional Autonoma de Mexico. Facultad de Psicologia.*
- 2:00 U3 **459.10** Increased heat shock protein 70 gene expression in the brains of cocaine-related fatalities may be reflective of post-drug survival and intervention rather than excited delirium. M. M. JOHNSON*; J. A. DAVID; S. K. MICHELHAUGH; C. J. SCHMIDT; M. J. BANNON. *Wayne State Univ. Sch. of Med., Wayne State Univ. Sch. of Med., Univ. of Michigan Sch. of Med.*

POSTER

460. Auditory System: Animal Model Systems

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 U4 **460.01** Frequency response of afferent neurons in the posterior lateral line system of larval zebrafish (*Danio rerio*). J. C. LIAO*; A. BALLO; O. AKANYETI. *Whitney Lab. For Marine Bioscience/University of Florida.*
- 2:00 U5 **460.02** Multiple functional areas exist within Te1 auditory cortex in rat. D. A. STORACE*; D. C. BISHOP; N. C. HIGGINS; D. L. OLIVER; H. L. READ. *Yale Univ., Univ. of Connecticut, Univ. of Connecticut Hlth. Ctr.*
- 3:00 U6 **460.03** How do zebra finches perceive the information content of social vocalizations? J. E. ELIE*; F. E. THEUNISSEN. *Univ. of California Berkeley.*
- 4:00 U7 **460.04** Temporal nonlinearities in the unanesthetized rabbit inferior colliculus. P. O. BOUTROS; D. O. KIM; S. KUWADA; M. A. ESCABI*. *Univ. of Connecticut, Univ. of Connecticut Hlth. Ctr., Univ. Connecticut.*
- 1:00 U8 **460.05** A hypothetical role for echolocation in shaping left hemispheric specialization for processing social calls in mustached bats. S. D. WASHINGTON*; J. TILLINGHAST. *Georgetown Univ. Med. Ctr., U.S. Census Bureau.*
- 2:00 U9 **460.06** Single neuromast stimulation initiates motor responses in larval zebrafish which in turn modifies afferent neuron activity. M. HAEHNEL*; J. C. LIAO. *Univ. of Florida.*
- 3:00 U10 **460.07** Characteristics of neurons in the medial nucleus of the trapezoid body of the rat. F. GAO*; A. S. BERREBI. *West Virginia Univ. Sch. of Med.*
- 4:00 U11 **460.08** Avian adeno-associated virus vector as an efficient gene transfer tool in the embryonic and post-embryonic chicken brain. R. MATSUI; D. WATANABE*. *Kyoto Univ., Kyoto Univ. Fac. of Med.*
- 1:00 U12 **460.09** An auditory colliculo-thalamo-cortical brain slice preparation in mouse. B. J. SLATER*; K. A. STEBBINGS; D. A. LLANO. *Univ. of Illinois.*
- 2:00 U13 **460.10** Connections of the hindbrain auditory nuclei of the turtle. K. L. WILLIS*; C. E. CARR. *Univ. Maryland.*
- 3:00 U14 **460.11** Characterization of spontaneous EPSCs in primary afferent fibers in the turtle auditory papilla. M. E. SCHNEE; A. J. RICCI*. *Stanford Univ., Stanford Univ.*
- 4:00 U15 **460.12** Differential roles of saccule and utricle for directional hearing and vestibular sense in a vocal benthic fish, *Halobatrachus didactylus*. R. O. VASCONCELOS*; R. R. FAY; A. RAMOS; P. L. EDDS-WALTON. *Ctr. de Biologia Ambiental, Dep. Biologia Animal, Fac. Ciências, Univ. Lisboa, Inst. for Advanced Studies, Marine Biol. Lab.*
- 1:00 U16 **460.13** Functional characterization of auditory processing in the songbird forebrain. T. M. ELLIOTT*; F. E. THEUNISSEN. *UC Berkeley, UC Berkeley.*
- 2:00 U17 **460.14** Lombard effect revisited: Ambient noise induces independent shifts in call frequency and amplitude in horseshoe bats. S. BERQUIST; T. JIANG; W. METZNER*; S. HAGE. *UCLA, Northeast Normal Univ., Univ. Tuebingen.*
- 3:00 U18 **460.15** An adaptive stimulus search method for rapid characterization of multidimensional receptive fields in auditory cortex of awake animals. A. CHAMBERS*; K. E. HANCOCK; D. B. POLLEY. *Harvard Med. Sch., Massachusetts Eye and Ear Infirmary, Harvard Med. Sch.*
- 4:00 U19 **460.16** Psychophysical estimates of auditory frequency selectivity in the common marmoset (*Callithrix jacchus*). M. S. OSMANSKI*; X. WANG. *Johns Hopkins Univ. Sch. of Med.*
- 1:00 U20 **460.17** ● Song discrimination ability of juvenile and adult zebra finches. G. NARULA*; A. JOVALEKIC; J. HERBST; R. HAHNLOSER. *Inst. For Neuroinformatics, Inst. For Neuroinformatics, Univ. of Zurich and ETH Zurich, Winterthurerstrasse 190.*
- 2:00 V1 **460.18** Interaural Level Difference tuning in auditory cortex of the human and the rat. N. C. HIGGINS*; D. A. STORACE; S. A. MCLAUGHLIN; M. A. ESCABI; G. C. STECKER; H. L. READ. *Univ. of Washington, Univ. of Connecticut, Yale Univ., Univ. of Washington, Univ. of Connecticut, Univ. of Connecticut.*
- 3:00 V2 **460.19** Anterior ectosylvian cortex lesions in the cat disrupt auditory, but not visual, orientation behaviors. H. JIANG*; B. E. STEIN; J. G. MCHAFFIE. *Wake Forest Univ. Sch. of Med.*
- 4:00 V3 **460.20** The detection and cortical encoding of amplitude modulation in freely moving gerbils. G. W. HOYT VON TRAPP*; B. N. BURAN; M. N. SEMPLE; D. H. SANES. *New York Univ.*

- 1:00 V4 **460.21** Bridging the gap: Magnetoencephalography in guinea pig reveals rapid auditory cortical adaptation to stimulus statistics. J. LINDEN; M. CHAIT; A. DE CHEVEIGNÉ; G. B. CHRISTIANSON*. *Univ. Coll London, CNRS.*
- 2:00 V5 **460.22** Contextual and temporal modulation of auditory responses in the songbird forebrain. K. LU*; T. ZIV; D. S. VICARIO. *Rutgers State Univ.*
- 3:00 V6 **460.23** Acoustic coupling across alligator eardrums. H. S. BIERMAN*; C. E. CARR; B. A. YOUNG; J. CHRISTENSEN-DALSGAARD. *Univ. of Maryland, Col. Park, Univ. of Massachusetts Lowell, Univ. of Southern Denmark.*
- 4:00 V7 **460.24** Modulation of the zebrafish escape response with an optically-controlled mGluR2. C. J. PANTOJA*; J. LEVITZ; E. Y. ISACOFF. *Univ. of California, Berkeley, Univ. of California, Berkeley.*
- 1:00 V8 **460.25** Comparison in A1 of rodent and cat multifilter receptive field models. B. SEYBOLD*; J. SHIH; P. HULLETT; C. ATENCIO; C. SCHREINER. *Univ. of California - San Francisco.*
- 2:00 V9 **460.26** ▲ Characterization of VGluT2-positive axon terminals in the rat medial geniculate body. S. E. H. KOBER; E. L. BARTLETT; S. M. GARDNER*. *Purdue Univ., Purdue Univ.*
- 3:00 V10 **460.27** Core auditory cortex of the cat revealed using high-field fMRI. A. J. MCMILLAN*; C. L. HALL; S. G. LOMBER. *Western Univ., Reach Healthcare.*
- 4:00 V11 **460.28** Adaptive control of the sonar beam pattern and pinna position by the echolocating bat in a complex environment. L. KRISHNAN; M. J. WOHLGEMUTH; C. F. MOSS*. *Univ. Maryland.*
- 1:00 V12 **460.29** Responses of ferret frontal cortex neurons in a long-term auditory memory task. P. YIN*; J. FRITZ; S. SHAMMA. *Univ. Maryland.*
- 2:00 V13 **460.30** ● Gap junctions may reduce response latency timing and variability in the big brown bat auditory brainstem. A. WHEELER*; J. R. BARCHI; J. A. SIMMONS; J. E. GAUDETTE. *Brown University.*

POSTER

461. Auditory System: Disease, Pathology and Drugs

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 V14 **461.01** ● Dysfunctional learning: What happens in the dorsal cochlear nucleus when one gets the answer to an acoustically cued question wrong? C. D. WOODY*. *UCLA Med. Cntr. NPI 58-258.*
- 2:00 V15 **461.02** Spontaneous activity in the auditory system following unilateral hearing loss. C. H. PARSONS*; C. J. BROWNE; S. CHEN; J. W. MORLEY. *Univ. of Western Sydney, Univ. of Sydney.*
- 3:00 V16 **461.03** Vowel and tone processing asymmetries in autistic and typically developing children. J. JENKINS III*; K. F. HEIKEN; L. A. CORNEW; L. BLASKEY; S. E. LEVY; S. A. QASMIH; K. M. CANNON; J. C. EDGAR; T. P. L. ROBERTS. *The Children's Hosp. of Philadelphia, The Children's Hosp. of Philadelphia.*

- 4:00 V17 **461.04** Gestational cocaine exposure alters maternal perception (human) and preference (rodent) of infant cries potentially through a maternal shift in sensitivity to acoustic properties of cries. E. T. COX*; K. M. GREWEN; P. S. ZESKIND; C. R. ZOGHBY; M. J. RADCLIFFE; K. GARBER; W. TATE; K. GLAZE; J. M. JOHNS. *UNC-Chapel Hill, Levine Children's Hosp. at Carolinas Med. Ctr., UNC-Chapel Hill.*
- 1:00 V18 **461.05** Deficits in auditory object localization in schizophrenia and their relation with auditory verbal hallucinations. L. M. ALBA-FERRARA; M. HAUSMANN; J. LEWALD; G. A. DE ERAUSQUIN*. *Univ. of South Florida, Durham Univ., Ruhr Univ., Univ. of South Florida.*
- 2:00 V19 **461.06** ▲ Mismatch negativity and P300 in cortical auditory evoked potentials in awake rats: Opportunities for preclinical evaluation of drugs with pro-cognitive potential. A. AHNAOU*; H. HUYSMANS; W. DRINKENBURG. *Janssen R&D, Pharmaceut. Companies of Johnson & Johnson.*
- 3:00 V20 **461.07** The early onset of oxidative stress processes in the organ of Corti after intense noise exposure. D. TROIANI*; G. MAULUCCI; S. L. M. ERAMO; M. DE SPIRITO; A. R. FETONI. *Inst. Physiol. Univ. Cattolica Sch. of Med., Inst. Physics Univ. Cattolica Sch. of Med., Inst. ORL Univ. Cattolica Sch. of Med.*
- 4:00 W1 **461.08** Auditory cortex intrinsic properties display a brief sensitive period to mild hearing loss. T. M. MOWERY*; V. C. KOTAK; D. H. SANES. *New York Univ.*
- 1:00 W2 **461.09** Refractory effects and distribution of the N1 event-related potential in experienced cochlear implant patients. C. D. COWPER-SMITH*; J. GREEN; H. MAESSEN; M. BANCE; A. NEWMAN. *Dalhousie Univ., Nova Scotia Hearing and Speech Centers, Capital Hlth. District.*
- 2:00 W3 **461.10** ● Rescue of hearing and vestibular function in deaf mice using antisense oligonucleotides. M. L. HASTINGS*; J. J. LENTZ; F. M. JODELKA; A. J. HINRICH; D. M. DUELLI; F. RIGO; N. G. BAZAN; K. E. MCCAFFREY; H. FARRIS; M. J. SPALITTA. *Rosalind Franklin Univ. of Med. and Sci., Louisiana State Univ. Hlth. Sci. Ctr., Isis Pharmaceuticals.*

POSTER

462. Auditory System: Human and Primate Responses and Organization

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 W4 **462.01** Assessment of the frequency limit of phase-locking at the round window in human. E. VERSCHOOTEN*; C. DESLOOVERE; P. X. JORIS. *Univ. of Leuven, Univ. of Leuven.*
- 2:00 W5 **462.02** Behavioral correlates of spike-timing precision in primate A1 during an amplitude-modulation detection task. J. D. DOWNER*; M. NIWA; J. JOHNSON; K. O'CONNOR; M. SUTTER. *UC Davis.*
- 3:00 W6 **462.03** Temporally specific EEG components correlate with perceived anticipation and task engagement. L. HONG*; J. M. WALZ; P. SAJDA. *Columbia Univ.*
- 4:00 W7 **462.04** Effects of the structure of tone sequence on the processing of tone omission in musicians and nonmusicians. K. ONO*; M. MATSUHASHI; T. MIMA; H. FUKUYAMA; C. ALTMANN. *Career-Path Promotion Unit For Young Scientists, Human Brain Res. Center, Kyoto Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 W8 **462.05** Neuromagnetic signatures of segregation in complex acoustic scenes. S. TEKİ; C. PAYNE; T. D. GRIFFITHS*; M. CHAIT. *Univ. Col. London, Univ. Col. London, Inst. of Neurosci.*
- 2:00 W9 **462.06** Simultaneous representation of task context and stimulus identity in the human auditory cortex. A. FLINKER*; N. E. CRONE; R. T. KNIGHT. *Univ. of California, Berkeley, Johns Hopkins Univ., Univ. of California, Berkeley.*
- 3:00 W10 **462.07** Diverse strategies for encoding stimulus duration in primate auditory cortex. B. J. MALONE*; B. H. SCOTT; M. N. SEMPLE. *UCSF Sch. of Med., Lab. of Neuropsychology NIH/NIMH, New York Univ.*
- 4:00 W11 **462.08** Investigating the neural basis of theta burst stimulation on auditory perception of emotional vocalisations. Z. K. AGNEW*; M. BANISSY; C. MCGETTIGAN; V. WALSH; S. K. SCOTT. *UCL Inst. of Cognitive Neurosci., Univ. Col. London.*
- 1:00 W12 **462.09** Coding of melodic Gestalt in human auditory cortex. A. SCHINDLER*; M. HERDENER; A. BARTELS. *Ctr. For Integrative Neuroscience, Univ. of Tübingen, Psychiatric Univ. Hospital, Univ. of Zürich, Max Planck Inst. for biological Cybernetics, High-field Magnetic Resonance Ctr.*
- 2:00 W13 **462.10** Human psychophysics of an auditory frequency-contour discrimination task. A. S. LIU*; A. CROOM; J. I. GOLD; Y. E. COHEN. *Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 3:00 W14 **462.11** Regions in human anterior auditory cortex exhibit pitch-selective responses across a wide range of natural and synthetic sounds. S. V. NORMAN-HAIGNER*; J. MCDERMOTT; N. KANWISHER. *MIT, New York Univ.*
- 4:00 W15 **462.12** A nonlinear dynamical systems approach to pitch perception. K. LERUD*; J. C. KIM; E. W. LARGE. *Florida Atlantic Univ.*
- 1:00 W16 **462.13** Stability of consonant pitch intervals in a nonlinear oscillator network model. J. C. KIM*; E. W. LARGE. *Florida Atlantic Univ.*
- 2:00 W17 **462.14** The timecourse of the neural response to effortful listening in speech comprehension. J. E. PEELLE*; E. SOHOGLU; M. H. DAVIS. *Univ. of Pennsylvania, MRC Cognition and Brain Sci. Unit.*
- 3:00 W18 **462.15** Upper frequency limit of phase-locking in humans: Implications from binaural hearing. P. X. JORIS*; E. VERSCHOOTEN. *KU Leuven.*
- 4:00 W19 **462.16** The budgerigar as a model for human detection of tones in noise. L. H. CARNEY*; K. ABRAMS; J. MAO; D. SCHWARZ; F. IDROBO. *Univ. Rochester, Boston Univ.*
- 1:00 W20 **462.17** Measuring object-related responses to mistuning of complex harmonic stimuli in infant auditory cortex using EEG. N. A. FOLLAND; B. E. BUTLER; L. J. TRAINOR*. *McMaster Univ.*
- 2:00 X1 **462.18** Spectral and temporal acoustic features map subfields in human auditory cortex. A. M. LEAVER*; J. P. RAUSCHECKER. *Georgetown Univ. Med. Ctr., Georgetown Univ.*
- 3:00 X2 **462.19** Spatial areas in human auditory cortex are differentially modulated by motor effector task. A. ISENBURG*; K. SABERI; G. HICKOK. *UC Irvine, UC Irvine.*
- 4:00 X3 **462.20** A new auditory salience model predicts human judgments. G. W. COTTRELL*; T. TSUCHIDA. *UCSD, UCSD.*
- 1:00 X4 **462.21** Auditory evoked potential (AEP) amplitude is coupled to slow wave phase during human slow wave sleep. J. LILJE; S. HANSLMAYR; N. WEISZ; S. S. DALAL*. *Univ. of Konstanz, Univ. of Freiburg, Univ. of Trento.*
- 2:00 X5 **462.22** Mechanisms underlying the perception of the Franssen illusion in the inferior colliculus of the behaving non-human primate. L. C. POPULIN*; A. Z. RAJALA; Y. YAN. *Univ. Wisconsin, Univ. of Wisconsin-Madison.*
- 3:00 X6 **462.23** Neural correlates of Deutsch's speech-to-song illusion. M. HYMERS*; C. LIU; A. SCHULZE; M. YOUNG; R. E. MILLMAN. *York Neuroimaging Centre, Univ. of York, Dept. of Psychology, Univ. of York.*
- 4:00 X7 **462.24** The causal role of the inferior colliculus in perception: Effects of electrical stimulation on frequency discrimination in primates. D. S. PAGES*; D. ROSS; J. M. GROH. *Duke Univ.*
- 1:00 X8 **462.25** Functional connectivity analysis in expert ballet dancers: Is resting state associated with pre-SMA activity? L. K. PYNN*; R. J. BAR; C. TILL; J. F. X. DESOUSA. *York Univ.*

POSTER

463. Multisensory Processing: Neural Circuits I

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 X9 **463.01** Visual projections to auditory anterior ectosylvian sulcus: implications for modulatory visual-auditory interactions. J. KRUEGER FISTER*; Z. P. BARNETT; W. H. LEE; T. A. HACKETT; M. T. WALLACE. *Vanderbilt Univ., Vanderbilt Univ.*
- 2:00 X10 **463.02** Superficial layers of the superior colliculus: Purely visual or multisensory? D. GHOSE*; Z. P. BARNETT; M. T. WALLACE. *Vanderbilt Univ., Vanderbilt Univ.*
- 3:00 X11 **463.03** VGlut2 protein expression in sensory and multisensory cortical regions of the cat. T. A. HACKETT*; J. KRUEGER FISTER; M. T. WALLACE. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*
- 4:00 X12 **463.04** Multisensory integration is related to changes in neuronal response reliability in awake animals. D. K. SARKO*; A. R. NIDIFFER; M. T. WALLACE. *Vanderbilt Univ.*
- 1:00 X13 **463.05** Shapes and sounds: An exploration of audiovisual crossmodality. S. HOSSAIN*. *Univ. of Texas At Dallas.*
- 2:00 X14 **463.06** Visual responses in area DZ of congenitally deaf cats. R. LAND*; C. SPRENGER; P. BAUMHOFF; P. HUBKA; J. TILLEIN; S. LOMBER; A. KRAL. *Hannover Med. Sch., Hannover Med. Sch., Johann Wolfgang Goethe Univ. Hosp., Western Univ.*
- 3:00 X15 **463.07** Acoustic textures and visual motion act in concert: Metamodal plasticity observed with MEG. N. ZILBER*; P. CIUCIU; A. GRAMFORT; V. VAN Wassenhove. *CEA, DSV, I2BM, Neurospin Ctr., Parietal Project Team, INRIA Saclay Ile-de-France, INSERM, U992, Cognitive Neuroimaging Unit, Univ. Paris-Sud, Cognitive Neuroimaging Unit.*
- 4:00 X16 **463.08** Cross-modal plasticity of excitatory synapses in auditory cortex following visual deprivation. E. R. PETRUS*; H. LEE. *Johns Hopkins Univ., Johns Hopkins Univ.*

- 1:00 X17 **463.09** Effects of isoflurane on multiple sensory and synaptic pathways in auditory cortex. A. RAZ; B. M. KRAUSE; S. M. GRADY; M. I. BANKS*. *Univ. of Wisconsin.*
- 2:00 X18 **463.10** Resting-state functional connectivity using visual and auditory seed regions reveals complementary lateral prefrontal cortical networks. D. C. SOMERS*; L. KONG; S. W. MICHALKA; M. L. ROSEN; B. G. SHINN-CUNNINGHAM. *Boston Univ., Boston Univ., Boston Univ., Martinos Ctr. for Biomed. Imaging, Boston Univ., Boston Univ.*
- 3:00 Y1 **463.11** ▲ Do neural circuits involved in learning a dance over 8 months continue to show increased activation? R. J. BAR; J. F. DESOUZA*. *York Ctr. For Vision Res., York Ctr. For Vision Res.*
- 4:00 Y2 **463.12** Neural audiovisual representations of space in sensory and higher multisensory cortices. T. ROHE*; U. NOPPENNEY. *Max Planck Inst. For Biol. Cybernetics.*
- 1:00 Y3 **463.13** Predictors of multisensory integration in the alert cat. A. R. NIDIFFER*; D. K. SARKO; M. T. WALLACE. *Vanderbilt Univ.*
- 2:00 Y4 **463.14** Increased audiovisual functional connectivity through training in an audiovisual search task. T. D. ARD*; T. HOLROYD; F. CARVER; R. COPPOLA. *NIH.*
- 3:00 Y5 **463.15** Gamma oscillations evoked by multisensory stimuli are altered in schizophrenia. D. B. STONE*; B. COFFMAN; J. STEPHEN. *Univ. New Mexico, Mind Res. Network.*
- 4:00 Y6 **463.16** Visual information in audiovisual speech perception strongly affects superior temporal sulcus in English speakers more than in Japanese speakers: An effective connectivity analysis. J. SHINOZAKI*; N. HIROE; T. YOSHIOKA; M. SATO; K. SEKIYAMA. *Sapporo Med. Univ. Sch. of Med., ATR Neural Information Analysis Labs., Kumamoto Univ.*
- 1:00 Y7 **463.17** Audio-visual temporal integration in children with cochlear implants. M. GORI*; A. CHILOSI; G. SANDINI; D. BURR. *ISTITUTO ITALIANO DI TECNOLOGIA, Stella Maris Scientific Inst., Inst. Italiano di Tecnologia, Univ. of Florence.*
- 2:00 Y8 **463.18** Audiovisual integration in people with one eye. S. S. MORO*; L. R. HARRIS; J. K. E. STEEVES. *York Univ., The Hosp. for Sick Children.*
- 3:00 Y9 **463.19** Audiovisual phonetic identification training improves multisensory speech perception and increases fMRI responses in the superior temporal sulcus. D. BASU MALLICK*; A. R. NATH; M. S. BEAUCHAMP. *Rice Univ., Univ. of Texas Hlth. Sci. Ctr. At Houston.*
- 4:00 Y10 **463.20** Prior exposure to a multimodal light and sound stimulus enhances evoked response to that stimulus by rat superior colliculus neurons. D. A. CRANE*; M. A. COLLINS; T. J. HINES; K. M. PATE; C. G. REDFEARN; M. C. ZRULL. *Appalachian State Univ.*
- 1:00 Y11 **463.21** ▲ Activity in superior colliculus of awake, moving rats evoked by tactile stimulation: A c-fos pilot study. K. B. DAVISON; D. E. COBB; A. J. ROSSI; A. M. LITTLEFIELD; L. S. JONES*; M. C. ZRULL. *Appalachian State Univ., Appalachian State Univ., Appalachian State Univ.*
- 2:00 Y12 **463.22** Auditory speech diminishes gamma-band responses in visual cortex to visual speech. I. M. SCHEPERS*; P. SUN; X. PEI; S. H. BAUM; D. YOSHOR; M. S. BEAUCHAMP. *Univ. of Texas Hlth. Sci. Ctr. at Houston, Baylor Col. of Med.*

- 3:00 Y13 **463.23** ● The relationship of intra- and interhemispheric connectivity. L. MAGROU*; P. MISERY; C. LAMY; P. GIROUD; K. KNOBLAUCH; H. KENNEDY. *INSERM U846, Stem-Cells and Brain Res. Inst.*

POSTER

464. Extrastriate Cortex: Organization and Circuits

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 Y14 **464.01** Developmental remodelling of corticocortical feedforward and feedback circuits in ferret visual cortex. R. KHALIL*; L. BRANDT; J. B. LEVITT. *City Col. of New York, Grad. Center, City Univ. of New York.*
- 2:00 Y15 **464.02** Corticocortical connection between the primary and lateromedial extrastriate visual cortex in the mouse: a single axon study. S. ROSS; M. LARAMÉE; D. BOIRE*. *UQTR.*
- 3:00 Y16 **464.03** A specialized area in primate limbic cortex for rapid processing of far peripheral vision. H. YU*; T. A. CHAPLIN; A. J. DAVIES; R. VERMA; M. G. P. ROSA. *Monash Univ., Monash Vision Group.*
- 4:00 Y17 **464.04** The spatial distribution of extrastriate visual areas in visually deprived mice. M. LARAMEE*; G. BRONCHTI; D. BOIRE. *UQTR.*
- 1:00 Y18 **464.05** The functional link between area MT activity and behavior during a motion-correlation detection task. A. GOLZAR; P. BOYRAZ; E. P. COOK*. *McGill Univ., McGill Univ.*
- 2:00 Y19 **464.06** Axon initial segment of pyramidal neurons of associative and commissural projection from extrastriate to striate cortex. J. L. BUENO-LOPEZ*; J. C. CHARA; J. L. MENDIZABAL-ZUBIAGA; C. REBLET. *Univ. Basque Country.*
- 3:00 Y20 **464.07** Excitatory/inhibitory balance in interareal circuits of mouse visual cortex. W. YANG; Y. CARRASQUILLO; M. B. HOOKS; J. NERBONNE; A. H. BURKHALTER*. *Washington Univ. Med. Sch., Washington Univ. Med. Sch., Janelia Farm HHMI, Washington Univ. Med. Sch.*
- 4:00 Z1 **464.08** Changes in MT-related decision circuitry following reversible inactivation of V2 and V3. A. SMOLYANSKAYA*; S. G. LOMBER; R. T. BORN. *Harvard Med. Sch., The Univ. of Western Ontario.*
- 1:00 Z2 **464.09** Dissociable cortical pathways for dynamic and static faces: A combined TMS / fMRI study. D. PITCHER*; V. WALSH; B. DUCHAINE. *NIH/NIMH, Univ. Col. London, Dartmouth Col.*
- 2:00 Z3 **464.10** A role for the pulvinar in visual cortical plasticity following lesions of V1 in early and adult life. J. A. BOURNE*; C. E. WARNER. *Aust. Reg. Med. Inst.*
- 3:00 Z4 **464.11** ● Border ownership coding for face and non-face silhouettes in early visual cortex. H. K. KO*; R. VON DER HEYDT. *Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med.*
- 4:00 Z5 **464.12** Organization of neural responses in macaque area V4 without input from V1. M. C. SCHMID*; A. J. PETERS; J. T. SCHMIEDT; R. C. SAUNDERS; A. MAIER; D. A. LEOPOLD. *Ernst Strüngmann Inst. (ESI) For Neurosci. In Cooperation With Max Planck, NIMH, Vanderbilt Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 Z6 **464.13** Detailed morphology of feedforward and feedback neurons in area V2 of primate visual cortex studied with genetically modified rabies virus. V. K. BEREZOVSKII; R. T. BORN*; J. J. NASSI. *Harvard Med. Sch., Salk Inst.*
- 2:00 Z7 **464.14** Longitudinal fMRI study of cortical development in young monkeys. T. J. VAN GROOTEL*; A. MEESON; M. H. J. MUNK; Z. KOURTZI; J. A. MOVSHON; N. K. LOGOTHETIS; L. KIORPES. *Max Planck Inst. For Biol. Cybernetics, Univ. of Birmingham, New York Univ.*
- 3:00 Z8 **464.15** Neural border ownership coding by the global context of natural scenes. J. WILLIFORD*; R. VON DER HEYDT. *Johns Hopkins Univ., Zanvyl Krieger Mind/Brain Inst.*
- POSTER**
- 465. Extrastriate Cortex: Functional Organization**
- Theme D: Sensory and Motor Systems**
- Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J
- 1:00 Z9 **465.01** Continuous mapping of mirror face rotation in macaque inferior temporal cortex. C. LIN*; T. SATO; C. P. HUNG; M. TANIFUJI. *Natl. Yang Ming Univ., RIKEN, Georgetown Univ., Univ. of Tokyo, Grad. Sch. of Frontier Sci., Waseda University, Fac. of Sci. and Engin.*
- 2:00 Z10 **465.02** Cortical organization linking object features and categories. T. SATO*; G. UCHIDA; M. LESCROART; J. KITAZONO; M. OKADA; M. TANIFUJI. *RIKEN Brain Sci. Inst., Univ. of California, The Univ. of Tokyo, Natl. Yang-Ming Univ., Waseda Univ.*
- 3:00 Z11 **465.03** Diversity of visual features represented in a face selective sub-region of macaque anterior inferior temporal cortex. T. OWAKI*; M. VIDAL-NAQUET; T. SATO; H. CATEAU; S. ULLMAN; M. TANIFUJI. *TOYOTA CENTRAL R&D LABS., INC., RIKEN BSI, Weizmann Inst., The Univ. of Tokyo, Natl. Yang-Ming Univ., Waseda Univ.*
- 4:00 Z12 **465.04** Computations in perirhinal cortex transform implicit input into an explicit format during a target-switching task. M. PAGAN*; N. C. RUST. *Univ. of Pennsylvania.*
- 1:00 Z13 **465.05** Comparisons of the spatial matrix of facilitatory subfields between multiple V2 neurons in infant monkeys. X. TAO*; B. ZHANG; G. SHEN; E. L. SMITH; I. OHZAWA; Y. M. CHINO. *Univ. of Houston, NOVA Southeastern Univ., Osaka Univ.*
- 2:00 Z14 **465.06** Constraints on cortical population coding of visual motion in area MT from smooth pursuit. S. E. PALMER*; B. LIU; P. STINSON; Z. WANG; L. C. OSBORNE. *Univ. of Chicago, Univ. of Chicago.*
- 3:00 Z15 **465.07** Hierarchical processing of simple shapes in rat visual cortex. B. VERMAERCKE*; G. VAN DEN BERGH; F. GERICH; H. P. OP DE BEECK. *Univ. Leuven.*
- 4:00 Z16 **465.08** Extracellular recordings in awake rat lateral visual cortex reveal the presence of a novel extrastriate area. G. VAN DEN BERGH*; B. VERMAERCKE; F. GERICH; E. YTEBROUCK; L. ARCKENS; H. P. OP DE BEECK. *K.U.Leuven, K.U.Leuven.*
- 1:00 AA1 **465.09** V4 contains color-selective, orientation-selective and conjoint color/orientation-selective functional domains. D. J. FELLEMAN*; H. LIM; A. ERIKSSON; A. PARAJULI. *Univ. Texas Med. Sch., Univ. Texas Med. Sch.*
- 2:00 AA2 **465.10** Effects of cholinergic receptor activation and blockade in V1, V4, and FEF of the awake macaque monkey. M. A. GIESELMANN*; S. GOTTHARDT; J. HERRERO; L. S. DELICATO; A. THIELE. *Newcastle Univ., Univ. of Sunderland.*
- 3:00 AA3 **465.11** Orientation anisotropy in the spatial matrix of facilitatory subfields of V2 neurons in macaque infants. G. SHEN*; B. ZHANG; X. TAO; E. L. SMITH, III; I. OHZAWA; Y. CHINO. *Univ. of Houston, Nova Southeastern Univ., Osaka Univ.*
- 4:00 AA4 **465.12** Low frequency component of LFP reflects behavioral outcomes in areas V1 and V4 during a delayed match to sample task. M. HU*; A. R. ANDREI; V. DRAGOI. *Univ. Texas-Houston, Med. Sch.*
- 1:00 AA5 **465.13** • Rapid learning reduces noise correlations in macaque V4. Y. WANG*; V. DRAGOI. *UT medical school at Houston.*
- 2:00 AA6 **465.14** Effect of resting state on network coding during a behavioral task. S. L. EAGLEMAN*; S. LEW; Y. WANG; V. DRAGOI. *Neurobio. and Anat., Univ. of Texas-Houston Med. Sch., Univ. de Buenos Aires.*
- 3:00 AA7 **465.15** The fine structure of V4 receptive fields. A. S. NANDY*; T. O. SHARPEE; J. H. REYNOLDS; J. F. MITCHELL. *Salk Inst., Salk Inst.*
- 4:00 AA8 **465.16** Retinotopic and functional organization of human area V6A. C. GALLETTI; M. SERENO; G. COMMITTERI; P. FATTORI; G. GALATI; A. TOSONI; S. PITZALIS*. *Univ. of Bologna, Birkbeck Univ. of London, Univ. G. d'Annunzio, Sapienza Univ. of Rome, Lab. of Neuropsychology, Univ. of Rome 'foro Italico'.*
- POSTER**
- 466. Processing of Contrast**
- Theme D: Sensory and Motor Systems**
- Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J
- 1:00 AA9 **466.01** Complex cells in primate V1 and V2: applicability of the hierarchical model. M. R. IBBOTSON*; S. L. CLOHERTY; J. A. MOVSHON. *Natl. Vision Res. Inst., Australian Natl. Univ., Univ. of Melbourne, Australian Natl. Univ., New York Univ.*
- 2:00 AA10 **466.02** • Perceptual learning of contrast discrimination: Detrimental effects of roving samples and flanker-induced improvement. X. CHEN*; M. SANAYEI; A. THIELE. *Newcastle Univ.*
- 3:00 AA11 **466.03** The effects of repetitive transcranial magnetic stimulation to the transverse occipital sulcus and the role of spatial frequency processing. R. E. GANADEN*; C. R. MULLIN; J. K. E. STEEVES. *York Univ.*
- 4:00 AA12 **466.04** State and cell type-dependent contrast gain modulation in mouse V1. U. KNOBLICH*; J. A. CARDIN. *Yale Univ., Yale Univ.*
- 1:00 AA13 **466.05** Visual stimuli of Black and White set the brain in different dynamic states. D. XING*; C. YEH; J. GORDON; R. SHAPLEY. *New York Univ., New York Univ., Hunter Col.*
- 2:00 AA14 **466.06** Probing visual choice in the mouse in virtual reality. M. KRUMIN*; K. D. HARRIS; M. CARANDINI. *Univ. Col. London, Imperial Col.*

- 3:00 AA15 **466.07** Effect of temporal frequency, color and contrast on behavioral performance and neuronal population activity in V4 of the behaving macaque. M. A. BERMUDEZ; D. COURBON; F. BARTHELEMY; G. S. MASSON; I. VANZETTA*. *CNRS, Aix-Marseille Univ., Univ. Paris Descartes*.
- 4:00 AA16 **466.08** Complex cell sensitivity to spatial phase increases at low contrasts. M. A. HIETANEN*; S. L. CLOHERTY; K. LI; M. R. IBBOTSON. *Natl. Vision Res. Inst., Univ. of Melbourne, Australian Natl. Univ.*
- 1:00 AA17 **466.09** Effects of Basal forebrain activation on contrast response and orientation tuning in tree shrew primary visual cortex. A. BHATTACHARYYA*; J. VEIT; R. KRETZ; G. RAINER. *Univ. of Fribourg*.
- 2:00 AA18 **466.10** PMLS responses to contrast-modulated (second-order) motion. L. BUSSIERES*; S. THOMAS; C. CASANOVA. *Ecole D'Optometrie, Univ. De Montreal*.
- 3:00 BB1 **466.11** Visual contrast sensitivity in the presence of adjacent stimulus elements in rats. D. D. KURYLO*; S. YETURO; F. BUKHARI; J. LANZA. *Brooklyn Col. CUNY*.

POSTER

467. Visual Motion: Neural Mechanisms

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 BB2 **467.01** Varying dot lifetime reveals distinct space-time sampling thresholds of VEP responses to optic flow. J. D. FESI*; A. L. THOMAS; R. O. GILMORE. *McGill Univ., The Pennsylvania State Univ.*
- 2:00 BB3 **467.02** The ventral anterior occipital sulcus(AOCS-v) and its relation the caudal superior temporal sulcus in the human brain. E. SEGAL*; M. PETRIDES. *Montreal Neurolog. Inst.*
- 3:00 BB4 **467.03** Effects of biological motion in the cerebral cortex of the primate brain. V. RAOS; M. KILINTARI*; H. E. SAVAKI. *FORTH/IACM, Med. School, Univ. of Crete*.
- 4:00 BB5 **467.04** A neural model of motion-induced border-ownership in random texture displays. O. W. LAYTON*; E. MINGOLLA; A. YAZDANBAKHS. *Boston Univ., Boston Univ.*
- 1:00 BB6 **467.05** Role of vestibular signals in dissociating self-motion and object motion in macaque area MSTd. R. SASAKI*; D. E. ANGELAKI; G. C. DEANGELIS. *Univ. of Rochester, Baylor Col. of Med., Univ. of Rochester*.
- 2:00 BB7 **467.06** Sequential stimuli reveal distinct visual processing deficits in aging and Alzheimer's disease. C. J. DUFFY*; R. FERNANDEZ. *Univ. Of Rochester Med. Ctr., Univ. Of Rochester Med. Ctr.*
- 3:00 BB8 **467.07** Two distinct visual microcircuits required for figure-ground discrimination in flies. R. G. KELLEY; J. L. FOX*; J. W. APTEKAR; C. LARSEN; M. A. FRYE. *UCLA/HHMI, Univ. Col. London*.
- 4:00 BB9 **467.08** The independent decline of motion and object processing across aging and Alzheimer's disease. M. S. JACOB*; C. J. DUFFY. *Univ. of Rochester*.
- 1:00 BB10 **467.09** Surround suppression across neuronal classes in area MT suggests an inhibition-stabilized network. M. A. LOPES*; M. JADI; T. D. ALBRIGHT; T. J. SEJNOWSKI; G. R. STONER. *Salk Inst. For Biol. Studies, Univ. of Coimbra*.

- 2:00 BB11 **467.10** ● The role of prediction in motion extrapolation. M. A. KHOEI; L. U. PERRINET*; G. S. MASSON. *INT / CNRS, Aix Marseille Univ.*
- 3:00 BB12 **467.11** Sequential stimuli reveal temporal interactions for path integration in MSTd neurons. W. K. PAGE*; N. SATO; M. T. FROEHLER; C. J. DUFFY. *Univ. of Rochester, Kwansei Gakuin Univ., Univ. of Iowa*.
- 4:00 BB13 **467.12** Neural representation of visual stimuli moving transparently in similar directions in cortical area MT. J. XIAO; X. HUANG*. *Univ. of Wisconsin - Madison*.
- 1:00 BB14 **467.13** Receptive field characteristics of visually-responsive neurons in the tree shrew pulvinar nucleus. W. DANG*; S. P. MASTERSON; J. D. DAY-BROWN; P. S. MAIRE; M. E. BICKFORD; H. M. PETRY. *Univ. of Louisville, Univ. of Louisville*.
- 2:00 BB15 **467.14** Quantitative inference of population response properties from motion induced maps in macaque V1 and V2. M. J. RASCH*; M. CHEN; S. WU; H. D. LU; A. W. ROE. *Beijing Normal Univ., Shanghai Inst. for Biol. Sci., Vanderbilt Univ.*
- 3:00 BB16 **467.15** ● Contribution of self-movement cues in MSTd due to optic flow and object motion. S. SEFATI*; M. S. MADHAV; E. D. TYTELL; W. K. PAGE; C. J. DUFFY; N. J. COWAN. *Johns Hopkins Univ., Univ. of Rochester*.
- 4:00 BB17 **467.16** Receptive field plasticity and visual adaptation. S. GEPSHTEIN*; P. JURICA; I. TYUKIN; C. VAN LEEUWEN; T. D. ALBRIGHT. *The Salk Inst. for Biol. Studies, RIKEN Brain Sci. Inst., Univ. of Leicester, Katholieke Univ. Leuven*.
- 1:00 BB18 **467.17** ● A cortical model of speed tuning in area MT. A. YAZDANBAKHS*; C. J. JOHNSON. *Boston Univ., Boston Univ.*
- 2:00 BB19 **467.18** A model that learns to navigate using grid cells and boundary vector cells driven by optic flow. F. RAUDIES*; E. MINGOLLA; M. E. HASSELMO. *Ctr. For Computat. Neurosci. and Neural Technol., Ctr. of Excellence for Learning in Education, Science, and Technol. (CELEST), Boston Univ.*
- 3:00 BB20 **467.19** Spatial specificity and inheritance of adaptation in the human visual system. S. HARRISON; J. Y. LARSSON*. *Royal Holloway, Univ. London*.
- 4:00 CC1 **467.20** Direction selective retinal ganglion cells reorient their directional preference following visual stimulation. M. RIVLIN-ETZION*; W. WEI; M. B. FELLER. *UC Berkeley, Univ. of Chicago*.
- 1:00 CC2 **467.21** Adaptation reduces the pattern selectivity of MT neurons. C. A. PATTERSON*; S. WISSIG; A. KOHN. *Albert Einstein Col. of Med., Albert Einstein Col. of Med.*
- 2:00 CC3 **467.22** The neural network dynamics underlying the Motion After-Effect in zebrafish larva. V. PEREZ SCHUSTER*; M. NOUVIAN; S. A. ROMANO; T. PIETRI; G. SUMBRE. *Inst. De Biologie De L'Ecole Normale Supérieure*.
- 3:00 CC4 **467.23** The horizontal system cells of the lobula plate in *Drosophila* have dendritic sub-regions that respond to figure motion in both the preferred and anti-preferred directions against a moving ground. J. W. APTEKAR; J. L. FOX; M. A. FRYE*. *UCLA, Howard Hughes Med. Inst., UCLA*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

468. Visual Learning and Categorization

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 CC5 **468.01** A comparison of lateral and medial intraparietal areas during visual categorization. S. K. SWAMINATHAN*; N. Y. MASSE; D. J. FREEDMAN. *Univ. of Chicago*.
- 2:00 CC6 **468.02** Direction selectivity in parietal cortex before and after visual categorization training. A. SARMA*; N. SANTHANAM; X. WANG; D. J. FREEDMAN. *Univ. of Chicago, Yale Univ. Sch. of Med.*
- 3:00 CC7 **468.03** Tailored mixed representations in LIP and PFC during delayed match-to-category task. W. CHAISANGMONGKON*; D. J. FREEDMAN; X. WANG. *Yale Univ., Univ. of Chicago, Yale Univ.*
- 4:00 CC8 **468.04** Passive interference of perceptual visual learning in humans. G. LANGE*; A. RADERMACHER; M. BEEN; B. JANS; P. DE WEERD. *Maastricht Univ., Radboud Univ.*
- 1:00 CC9 **468.05** Perceptual training alters perceptual estimation and smooth pursuit eye movements, but pursuit training does not. S. F. SZPIRO*; M. SPERING; M. CARRASCO. *New York Univ., Univ. of British Columbia, New York Univ.*
- 2:00 CC10 **468.06** A comparison of inferior temporal, perirhinal and prefrontal cortices during a novel vs. familiar categorization task. J. L. MCKEE*; S. L. THOMAS; D. J. FREEDMAN. *Univ. of Chicago, Univ. of Chicago*.
- 3:00 CC11 **468.07** Learning and Performance deficits in short-term memory tasks after lateral-prefrontal cortex ablations in rhesus monkeys. J. H. WITTIG*, Jr.; A. I. HOROVITZ; E. C. MASSEAU; B. J. RICHMOND. *NIMH*.
- 4:00 CC12 **468.08** Ripples of word and face recognition: Categorical perception revealed by non-harmonic peaks in SSVEP waves. Y. YONCHEVA*; Z. REAGH; B. MCCANDLISS. *Vanderbilt Univ., Univ. of Alabama at Birmingham*.
- 1:00 CC13 **468.09** Practising coarse orientation discrimination improves orientation signals in an fMRI-defined region of the macaque posterior inferior temporal cortex. H. ZIVARI ADAB*; I. D. POPIVANOV; W. VANDUFFEL; R. VOGELS. *Lab. voor Neuro- en Psychofysiologie, KU Leuven Med. Sch., Martinus Ctr. for Biomed. Imaging, Massachusetts Gen. Hosp., Dept. of Radiology, Harvard Med. Sch.*
- 2:00 CC14 **468.10** Fine discrimination of visual categories is impaired after lesions of area TE but not rhinal cortex. M. A. ELDRIDGE*; N. MATSUMOTO; J. H. WITTIG, Jr; R. C. SAUNDERS; B. J. RICHMOND. *NIMH, AIST*.
- 3:00 CC15 **468.11** Visual feature integration in the lateral Intraparietal Area. G. IBOS*; D. J. FREEDMAN. *The Univ. of Chicago*.

POSTER

469. Attention: Cognitive and Behavioral Studies

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 CC16 **469.01** Insights into macaque frontal eye fields function through modeling, theta burst repetitive transcranial magnetic stimulation and resting state fMRI. P. F. BALAN*; A. GERITS; D. MANTINI; W. VANDUFFEL. *KU Leuven*.
- 2:00 CC17 **469.02** Psychophysical evidence supporting the domain specific character of head gaze following in rhesus monkeys. K. MARCINIAK*; P. W. DICKE; P. THIER. *Hertie Inst. For Clin. Brain Res.*
- 3:00 CC18 **469.03** A simple mapping method of the immediate early gene protein expression. A. UYSAL*; R. RIES; T. PATTON; A. MAHMUD; T. SHIMIZU. *Univ. of South Florida, Augusta State Univ., Univ. of South Florida*.
- 4:00 CC19 **469.04** The effect of transcranial direct-current stimulation on visual search reaction time. K. SUNG; M. L. MCENTEE; D. J. SCHRETLEN; B. GORDON*. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*
- 1:00 CC20 **469.05** Latency delay present at v1 during a visuomotor task in adolescents with fetal alcohol spectrum disorder (fasd). C. M. GARCIA*; P. W. KODITUWAKKU; J. M. HOUCK; C. D. TESCHE. *Univ. of New Mexico, Univ. of New Mexico*.
- 2:00 DD1 **469.06** My partner and I - How the partner's task influences my own brain responses. P. BAESS*; A. MANDEL; M. TIAINEN. *Sch. of Science, Aalto Univ.*
- 3:00 DD2 **469.07** Attentional modulation with learning in monkey V1 and FEF. C. VAN DER TOGT*; L. STĂNIȘOR; P. R. ROELFSEMA. *Netherlands Inst. Neurosci.*
- 4:00 DD3 **469.08** Effects of attention on visual performance in amblyopic macaque monkeys (*Macaca nemestrina*). L. KIORPES*; A. PHAM; M. CARRASCO. *New York Univ., New York Univ.*
- 1:00 DD4 **469.09** Selective attention in peahens during courtship. J. YORZINSKI*; G. PATRICELLI; J. BABCOCK; M. PLATT. *Duke Univ., UC Davis, Positive Sci.*
- 2:00 DD5 **469.10** Fine-scaled measurement of the distribution of visuo-spatial attention across the horizontal plane using EEG. G. M. LOUGHNANE; J. P. SHANLEY; E. C. LALOR*; R. G. O'CONNELL. *Trinity Col. Dublin*.

POSTER

470. Vestibular Central Pathways

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 DD6 **470.01** Spinal corollary discharge informs mechanoreceptor organs about frequency and duration of locomotor activity. B. P. CHAGNAUD*; R. BANCHI; H. STRAKA. *Ludwig Maximilians Univ.*
- 2:00 DD7 **470.02** Development of vestibular projection neurons - transition from segmental to nuclear organization. J. C. GLOVER*; G. HALASI; J. RENAUD; C. DIÁZ. *Univ. Oslo, Univ. of Albacete*.

- 3:00 DD8 **470.03** Morpho-physiological organization of gaze and posture control during locomotion in Axolotl. R. BANCHI; B. P. CHAGNAUD; H. STRAKA*. *LMU Munich - Biocenter Martinsried.*
- 4:00 DD9 **470.04** Anatomical studies of the direct vestibulo-sympathetic pathway. V. L. FRIEDRICH, Jr.; G. P. MARTINELLI; B. COHEN; G. R. HOLSTEIN*. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med., Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*
- 1:00 DD10 **470.05** Vasovagal responses (VVR) induced by head tilts and sinusoidal galvanic vestibular stimulation (sGVS) in the anesthetized rats. S. B. YAKUSHIN; A. SCHAFFNER; Y. XIANG; G. P. MARTINELLI; T. RAPHAN; G. R. HOLSTEIN; B. COHEN*. *Mt Sinai Sch. Med., Brooklyn College, City Univ. of New York.*
- 2:00 DD11 **470.06** Characterization of vestibulospinal connectivity to the cervical spinal cord in the neonatal mouse. A. SAMARA*; F. M. LAMBERT; J. C. GLOVER. *Univ. of Oslo.*
- 3:00 DD12 **470.07** Anatomical studies of the indirect vestibulo-sympathetic pathway through the caudal ventrolateral medulla. G. P. MARTINELLI*; V. L. FRIEDRICH, Jr.; B. COHEN; G. R. HOLSTEIN. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*
- 4:00 DD13 **470.08** Cell-type specificity in central vestibular neurons: Circuitry, physiology, plasticity, and gene expression. S. DU LAC*; T. KODAMA; L. MCELVAIN; K. KELLEHER; S. GUERRERO. *The Salk Inst., Salk Inst.*
- 1:00 DD14 **470.09** The enhancement of propofol effect via the vestibular system by exposure to hypergravity environment. C. IWATA*; C. ABE; H. MORITA. *Gifu Univ. Grad. Sch. of Med.*
- 2:00 DD15 **470.10** Visuo-vestibular convergence in the retroinsular cortex: a 7T fMRI study. R. MARTUZZI*; M. TSIMPANOULI; W. VAN DER ZWAAG; C. LOPEZ; O. BLANKE. *Lab. of Cognitive Neurosci. - Swiss Federal Inst. of Technol., Ctr. for Neuroprosthetics - Swiss Federal Inst. of Technol., Lab. of Functional and Metabolic Imaging - Swiss Federal Inst. of Technol., Radiology Dept. - Univ. de Lausanne, Lab. de Neurosciences Intégratives et Adaptatives - CNRS and Aix-Marseille Univ., Dept. of Neurol. - Univ. Hosp.*
- 3:00 DD16 **470.11** Nucleus prepositus hypoglossi does not contribute to head direction signalling during active motion in rhesus monkey. A. DALE*; K. E. CULLEN. *McGill Univ.*
- 4:00 DD17 **470.12** Developmental changes in ionotropic glutamate receptor subunits in rat inferior olivary neurons responsive to linear accelerations. Y. CHAN*; C. LI; L. HAN; C. W. MA; C. H. LAI; D. K. Y. SHUM. *Univ. Hong Kong Fac Med., Univ. Hong Kong Fac Med., Univ. Hong Kong Fac Med.*
- 1:00 DD18 **470.13** Detection thresholds of macaque otolith afferents. X. YU*; D. DICKMAN; D. E. ANGELAKI. *Dept. of Neuroscience, Baylor Col. of Med.*
- 2:00 DD19 **470.14** Rotation and translation detection thresholds of vestibular nuclei neurons before and after unilateral labyrinthectomy. J. THOMASSEN*; S. LIU; S. D. NEWLANDS; J. D. DICKMAN; D. E. ANGELAKI. *Baylor Col. of Med., Univ. of Rochester Med. Ctr.*
- 3:00 DD20 **470.15** Behavior of human translational vestibulo-ocular reflex (tVOR) during simultaneous head translation and rotation depends on stimulus context. R. SCHNEIDER; K. LIAO; M. WALKER; R. LEIGH*. *Va Med. Ctr. and Case Western Reserve Univ., Va Med. Ctr.*
- 4:00 EE1 **470.16** Eye movements induced by bone conducted vibration in humans are consistent with the dynamics of ocular compensation to a head tilt. E. D. CORNELL*; A. M. BURGESS; I. S. CURTHOYS. *The Univ. Sydney, The Univ. of Sydney, The Univ. of Sydney.*
- 1:00 EE2 **470.17** Multiple time scale neural plasticity induced by suppression of angular vestibulo-ocular reflex (aVOR). W. ZHOU*; Y. XU; I. SIMPSON; W. WEI; K. KOSEK. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr.*
- 2:00 EE3 **470.18** ▲ New tests of canal (head impulse test) and otolith (ocular and cervical vestibulo-ocular myogenic potentials) function in patients suffering from vertigo and dizziness. C. DE WAELE*; E. CHIORAVANO; C. MAGNANI; H. VELTHUIS; G. LAMAS; P. VIDAL. *CESEM, UMR 8194, salpetriere hospital.*
- 3:00 EE4 **470.19** Coding of gravity-dependent adaptation of the angular vestibulo-ocular reflex (aVOR) in the Fastigial nucleus (FN). S. B. YAKUSHIN*; O. KOLESNIKOVA; B. COHEN; T. RAPHAN. *Mount Sinai Med. Ctr., Brooklyn Col. of the City Univ. of New York.*
- 4:00 EE5 **470.20** ● Adaptation of VOR eye movements through electrical stimulation. A. NOWACK; C. R. S. KANEKO; L. LING; K. NIE; J. T. RUBINSTEIN; S. SHEPHERD; J. O. PHILLIPS*. *Univ. of Washington, Univ. of Washington, Univ. of Washington, Univ. of Washington.*

POSTER

471. Nociceptors: Anatomical and Physiological Studies

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 EE6 **471.01** Immunohistochemical localization of kainate receptor in rat cornea. B. O. IBITOKUN*; K. E. MILLER. *Oklahoma State Univ. Ctr. For Hlth. Sci.*
- 2:00 EE7 **471.02** Immunohistochemical and functional characterization of mu-opioid receptors in mouse lumbar dorsal root ganglion cells during embryonic development. S. RODRIGUES; L. TOYNE; M. ALQATARI; M. KOLTZENBURG*. *UCL.*
- 3:00 EE8 **471.03** Aspartate aminotransferase is elevated in rat DRG neurons containing calcitonin gene-related peptide during adjuvant-induced arthritis. B. BOLT*; K. E. MILLER. *Oklahoma State Univ. Ctr. For Hlth. Sci.*
- 4:00 EE9 **471.04** ● Molecular targets for botulinum neurotoxin type a are co-localized in human skin sensory and autonomic nerve fibers. R. S. BROIDE*; C. RHEAUME; K. R. AOKI; J. FRANCIS. *Allergan, Inc.*
- 1:00 EE10 **471.05** ● Botulinum neurotoxin type A is selective for specific subpopulations of rat autonomic and sensory nerve fibers. C. RHEAUME*; G. S. NICHOLSON; J. RUBINO, Jr.; M. S. WASHBURN; K. R. AOKI; J. FRANCIS; R. S. BROIDE. *Allergan Inc.*
- 2:00 EE11 **471.06** The role of ERK1/2 signaling in the peripheral nociceptive circuitry. D. E. O'BRIEN*; B. J. ALTER; S. K. VOGT; G. E. LANDRETH; R. KUNER; J. P. GOLDEN; R. W. GEREAU, IV. *Washington Univ. In St. Louis, Case Western Reserve Univ., Univ. of Heidelberg.*
- 3:00 EE12 **471.07** ▲ Neural Conduction and Accommodation in NaV 1.8 and 1.9 k.o. mice. C. WEIDNER*; T. HOFFMANN; P. W. REEH. *Univ. of Erlangen.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 EE13 **471.08** Heat sensitivity differentiates two classes of polymodal nociceptors in non-human primate. M. RINGKAMP*; J. BORZAN; M. WOOTEN; T. V. HARTKE; R. A. MEYER. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*
- 1:00 EE14 **471.09** HCN2 expression in nociceptors and low threshold mechanoreceptors (LTMs) in rat dorsal root ganglia (DRGs) *in vivo* in relation to Ih; influence of NT3 and inflammation. S. N. LAWSON*; S. MCMULLAN; L. DJOUHRI; L. GAO; K. DEMPSEY; C. G. ACOSTA. *Bristol Univ., Macquarie Univ., Liverpool Univ., Huazhong Univ. of Sci. and Technol.*
- 2:00 EE15 **471.10** Mechanical hyperalgesia and mechanical nociceptive threshold are mediated by different nociceptive fibers. F. PRADO*; K. T. CHAVEZ; A. S. VIEIRA; C. H. TAMBELLI; C. A. PARADA. *State Univ. of Campinas.*
- 3:00 EE16 **471.11** • Conduction velocity of fibers triggering the tail-flick reflex: Measurement following infrared diode laser stimulation. M. I. NEMENOV*; B. POLLIN; R. ROY-LEDOUX; D. LE BARS. *Lasmed LLC, Stanford Univ., Univ. Pierre et Marie Curie.*
- 4:00 EE17 **471.12** Single cell analysis of cutaneous nociceptors following inflammation reveals population specific changes in gene expression. K. M. BAUMBAUER*; M. P. JANKOWSKI; K. M. EKMANN; C. E. ANDERSON; D. J. SONEJI; H. R. KOERBER. *Univ. of Pittsburgh, Cincinnati Children's Hosp.*
- 1:00 EE18 **471.13** Increased TRPV1 expression plays a critical role in the recruitment of cutaneous C-heat fibers following contralateral saphenous nerve axotomy. D. J. SONEJI*; K. M. BAUMBAUER; M. P. JANKOWSKI; C. E. ANDERSON; K. M. EKMANN; H. R. KOERBER. *Univ. of Pittsburgh, Cincinnati Children's Hosp.*
- 2:00 EE19 **471.14** Modulation of potassium and calcium currents by group 2 metabotropic glutamate receptors in dorsal root ganglion neurons. S. DAVIDSON*; J. P. GOLDEN; R. W. GEREAU, IV. *Washington Univ. Sch. of Med.*
- 3:00 EE20 **471.15** • Response properties and trajectories of calvarial periosteal afferents: implication for migraine and post-traumatic headache. J. ZHAO; D. LEVY*. *BIDMC, Harvard Med. Sch.*
- 4:00 FF1 **471.16** Nociceptive effect of long-term weakening of the geomagnetic field. M. KHODANOVICH*; N. KRIVOVA; E. GUL; A. ZELENSKAYA; E. PAN. *Tomsk State Univ.*
- 1:00 FF2 **471.17** Nociceptor Kv3.4 channel expression and function during development and spinal cord injury. D. RITTER*; C. HO; C. NICAISE; T. HALA; A. LEPORE; M. O'LEARY; M. COVARRUBIAS. *Thomas Jefferson Univ., Thomas Jefferson Univ.*
- 2:00 FF3 **471.18** A role of anoctamin 1 in mediating acute and chronic pain. B. LEE*; H. CHO; S. LEE; J. LEE; G. HONG; J. OH; J. CHA; U. OH. *Seoul Natl. Univ., Seoul Natl. Univ.*
- 3:00 FF4 **471.19** Resting currents of nociceptive dorsal root ganglia neurons. X. DU; S. GIGOUT*; H. ZHANG; N. GAMPER. *Hebei Med. Univ., Univ. of Leeds.*
- 4:00 FF5 **471.20** Distinct Nav1.7-dependent pain sensations require different sets of sensory and sympathetic neurons. M. MINETT*; M. A. NASSAR; A. H. DICKENSON; F. WANG; J. N. WOOD. *UCL, The Univ. of Sheffield, Univ. Col. London, Duke Univ. Med. Ctr.*
- 1:00 FF6 **471.21** Small RNAs regulate pain states. S. SHEPHERD*; J. ZHAO; J. WOOD. *UCL.*
- 2:00 FF7 **471.22** Neuromedin B serves a role in nociceptive signaling. S. K. MISHRA*; S. HOLZMAN; M. A. HOON. *Natl. Inst. of Dent. and Craniofacial Research/NIH.*
- 3:00 FF8 **471.23** The nAChR DEG-3/DES-2 is required for the function and maintenance of the *c. elegans* nociceptive PVD neurons. E. COHEN*; M. CHATZIGEORGIOU; W. SCHAFER; M. TREININ. *Fac. of Medicine, Hebrew Univ. of Jerusalem, MRC Lab. of Mol. Biol.*

POSTER

472. Treatments for Persistent Pain

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 FF9 **472.01** • The delta opioid receptor as a novel therapeutic target for the treatment of migraine. M. L. SMITH; J. ZYUZIN; A. CHARLES; A. A. PRADHAN*. *UCLA, UCLA.*
- 2:00 FF10 **472.02** • A novel selective CB2 agonist, LY2828360 is efficacious in chronic pain models. M. P. JOHNSON*; M. G. CHAMBERS; S. P. HOLLINSHEAD; K. KNOPP; S. IYENGAR; R. VASUDEVA; P. C. ASTLES. *Eli Lilly & Co, Eli Lilly & Co, Eli Lilly & Co, Eli Lilly & Co, Eli Lilly & Co.*
- 3:00 FF11 **472.03** Experimental gene therapy with Serine-Histogranin and Endomorphin-1 for spinal cord injury-induced pain in rats. S. JERGOVA*; D. COLLANTE; N. PATHAK; S. JANI; S. GAJAVELLI; J. SAGEN. *Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med.*
- 4:00 FF12 **472.04** Transplantation of human umbilical cord blood or amniotic epithelial stem cells alleviates mechanical allodynia after spinal cord injury in rats. D. ROH*; M. SEO; H. CHOI; S. PARK; H. HAN; A. J. BEITZ; K. KANG; J. LEE. *Kyung Hee Univ. Sch. of Dent., Col. of Vet. Med., Seoul Nat'l Univ., Col. of Vet. Medicine, Seoul Natl. Univ., Univ. of Minnesota.*
- 1:00 FF13 **472.05** Antinociceptive effect of a conjugate of Substance P and Light chain of Botulinum neurotoxin Type A in a murine model. G. MUSTAFA*; E. M. ANDERSON; R. M. CAUDLE. *Univ. of Florida, Univ. of Florida.*
- 2:00 FF14 **472.06** The potency of tramadol and acetaminophen on neuropathic pain is different from that on inflammatory pain. T. SHINOZAKI; T. YAMADA; T. ISHIMURA; T. YAMAMOTO*. *Kumamoto Univ. Hosp.*
- 3:00 FF15 **472.07** Small molecule KCC2 activators as novel therapeutic agents for neuropathic pain. M. GAGNON; M. J. BERGERON; R. BONIN; K. BACHAND; K. VANDAL; M. JACOB-WAGNER; P. ISENRING; G. ATTARDO; J. A. M. COULL; Y. DE KONINCK*. *Laval Univ. / IUSMQ, Laval Univ. / CRCHUQ, Chlorion, Laval Univ. / CRULRG.*
- 4:00 FF16 **472.08** LC administration of N-Acetylaspartylglutamate (NAAG) peptidase inhibitors is analgesic in rat formalin test via mGluR3 activation. T. YAMADA; T. SHINOZAKI; T. ISHIMURA; J. H. NEALE*; T. YAMAMOTO. *Kumamoto Univ. Hosp., Georgetown Univ.*
- 1:00 FF17 **472.09** Adenylyl cyclase subtype 1 is essential for cortical late-phase LTP and the recruitment of cortical network. M. ZHUO*; T. CHEN; K. KOGA. *Univ. Toronto, Univ. of Toronto.*

- 2:00 FF18 **472.10** Treatment of orofacial pain by using 20 Hz rTMS stimulation. R. ROKYTA*; J. FRICOVA. *3rd Fac Med. Charles Univ. Prague, Charles University, First Fac. of Med.*
- 3:00 FF19 **472.11** ● Dramatic difference in saxitoxin and tetrodotoxin affinities for the human nociceptive voltage-gated sodium channel (Na_v1.7). J. WALKER; P. NOVICK; J. V. MULCAHY*; M. AXTMAN; M. MCGREGOR; J. ZABLOCKI; G. MILJANICH; V. S. PANDE; J. DU BOIS. *Stanford Univ., Accelrys, Gilead Sci., SiteOne Therapeut.*
- 4:00 FF20 **472.12** Mitogen activated protein kinase phosphatase-3 (MKP-3) is necessary for postoperative allodynia resolution in mice. M. SAHA*; E. ALFONSO ROMERO-SANDOVAL; E. MARTINEZ; D. ALVAREZ. *Geisel Sch. of Med. At Dartmouth, Geisel Sch. of Med. at Dartmouth, Geisel Sch. of Med. at Dartmouth.*
- 1:00 GG1 **472.13** Nitrous oxide preventively alleviates neuropathic pain via NMDA receptors. Y. CHEN*; M. CHAN; C. CHENG. *The Chinese Univ. of Hong Kong, The Chinese Univ. of Hong Kong.*
- 2:00 GG2 **472.14** Concepts of low back pain and sciatica in patients with chronic structural spine pathology through a natural semantic network model. I. ZARCO DE CORONADO*; R. CORONADO-ZARCO; S. MACIAS-HERNANDEZ; E. CRUZ-MEDINA. *UNAM, Inst. Nacional de Rehabilitación.*
- 3:00 GG3 **472.15** Bilateral pain sensitization in a rat model of central neuropathic pain treated with high doses of ketamine. A. CASTEL; F. BEAUDRY; P. VACHON*. *Univ. of Montreal, Univ. of Montreal, Univ. of Montreal - Fac. of Vet. Med.*
- 4:00 GG4 **472.16** ● Effects of deep, shaped magnetic field pulses on acute and chronic pain. A. Z. TZABAZIS*; D. C. YEOMANS; C. MARI APARICI; H. VANBROCKLIN; Y. SEO; A. ETKIN; L. TABER; S. YANG; M. SCHNEIDER. *Dept. of Anesthesia, Stanford Univ., Univ. of San Francisco, Stanford Univ., Premier Res. Group, Cervel Neurotech Inc, Cervel Neurotech Inc.*
- 1:00 GG5 **472.17** Calpain inhibition reduces neuropathic pain. R. P. GUTTMANN*; R. R. DONAHUE; B. K. TAYLOR. *Univ. of West Florida, Univ. of Kentucky.*
- 2:00 GG6 **472.18** An instrument-assisted spinal manipulation may attenuate dorsal root ganglion inflammation and pain through activating endogenous anti-inflammatory cytokine interleukin-10. Z. HUANG; Y. ZHANG*; R. L. RUPERT; A. L. ROSNER; A. W. FUHR; X. SONG. *Parker Univ. Res. Inst.*
- 3:00 GG7 **472.19** Meteorin effectively reverses hypersensitivity in rat models of neuropathic pain. J. R. JORGENSEN*; X. XU; H. ARNOLD; G. MUNRO; J. HAO; B. PEPINSKY; C. HUANG; B. GONG; Z. WIESENFELD-HALLIN; L. WAHLBERG; T. JOHANSEN. *NsGene A/S, Section of Integrative Pain Research, Karolinska Institutet, Biogen Idec, Inc., Lundbeck.*
- 4:00 GG8 **472.20** Combined beta-adrenergic-receptor (AR) agonist and alpha-AR antagonist treatment reduced joint damage in adjuvant-induced arthritis without affecting disease-induced sympathetic denervation of the ankle. D. LORTON*; C. WOOD; C. LUBAHN; P. GIFFORD; J. WERGEDAL; J. SCHALLER; D. BELLINGER. *Kent Summa Inst. For Clin. and Translational Res., Kent State Univ., Linda Univ. Sch. of Med., Banner Sun Hlth. Res. Inst., Loma Linda Univ. Sch. of Med., Loma Linda Univ. Sch. of Med., Jerry L Pettis VA Med. Ctr., Loma Linda Univ. Sch. of Med.*

- 1:00 GG9 **472.21** ● The strength of AP325 in the treatment of central neuropathic pain following spinal cord injury. G. C. KOOPMANS*; J. OPATZ; B. HASSE. *Algiax Pharmaceuticals GmbH.*
- 2:00 GG10 **472.22** ● The strength of AP-325 in the treatment of peripheral neuropathic pain. B. HASSE*; G. KOOPMANS; J. OPATZ. *Algiax Pharmaceuticals GmbH.*

POSTER

473. Visceral Pain

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 GG11 **473.01** Enhanced vaginal sensitivity and anxiety in adult mice that underwent chronic neonatal stress. A. N. PIERCE*; R. WANG; J. M. RYALS; J. A. CHRISTIANSON. *Univ. of Kansas Med. Ctr.*
- 2:00 GG12 **473.02** Alterations in nociceptive processing following neonatal vaginal irritation and maternal separation. J. A. CHRISTIANSON*; A. N. PIERCE; R. WANG; Z. ZHANG; J. M. RYALS. *Univ. of Kansas Med. Ctr.*
- 3:00 GG13 **473.03** Involvement of TRPC4 in mustard oil induced visceral hyperalgesia in rat. L. ZHANG*; F. MA; K. N. WESTLUND. *Univ. Kentucky.*
- 4:00 GG14 **473.04** Nociceptin and APDC (group II mGluR agonist) attenuate mechanical and heat hypersensitivity in chronic pancreatitis induced by high fat and alcohol diet in rats. K. N. WESTLUND*; S. L. MCILWRATH. *Univ. Kentucky.*
- 1:00 GG15 **473.05** Role of TRPV1 and P2X3 in mechanosensation in colorectal primary afferents. M. E. KIYATKIN*; G. F. GEBHART. *Univ. of Pittsburgh, Sch. of Med.*
- 2:00 GG16 **473.06** ▲ Effect of analgesic agents on visceromotor responses in rats with inflamed bladders. M. H. KAMPE; C. H. DEWITTE; J. L. HILL; R. ROY; T. J. NESS; M. T. ROBBINS*. *Univ. Alabama-Birmingham.*
- 3:00 GG17 **473.07** The CBA/J mouse as a genetic model of visceral hypersensitivity: Relationship with spinal glutamate transporter expression, anxiety and depression-like behaviours. R. D. MOLONEY*; T. G. DINAN; J. F. CRYAN. *Univ. Col. Cork, Univ. Col. Cork/Alimentary Pharmabiotic Ctr., Univ. Col. Cork/Alimentary Pharmabiotic Ctr.*
- 4:00 GG18 **473.08** Channelrhodopsin stimulation demonstrates a role for brainstem modulation in uterine nociceptive physiology. K. M. HELLMAN*; P. YU; C. SEGEL; F. F. TU. *NorthShore Univ. HealthSystem, NorthShore Univ. HealthSystem.*
- 1:00 GG19 **473.09** Apoptosis in the spinal cord: An unexpected side effect of inflammatory bowel disease. B. W. LEBLANC*; N. CHAI; C. Y. SAAB. *Rhode Island Hosp.*
- 2:00 GG20 **473.10** Role of isolectin B4 (IB4)-binding primary afferents in colorectal mechanosensation. J. LA*; B. FENG; E. S. SCHWARTZ; G. F. GEBHART. *Ctr. For Pain Research, Univ. Pittsburgh.*
- 3:00 HH1 **473.11** Cross spectrum evoked oscillations in chronic visceral pain. B. W. FENTON*. *Summa Hlth. Syst.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 HH2 **473.12** Resting scan alterations in female patients with interstitial cystitis/painful bladder syndrome: Preliminary data from the multi-disciplinary approach to the study of chronic pelvic pain (MAPP) network. L. A. KILPATRICK*; K. TILLISCH; B. NALIBOFF; J. LABUS; Z. JIANG; E. MEYER; M. FARMER; A. APKARIAN; S. MACKAY; K. JOHNSON; D. CLAUW; R. HARRIS; G. DEUTSCH; T. NESS; C. YANG; C. MULLINS. *UCLA, UCLA, Northwestern Univ., Stanford Univ., Univ. of Michigan, Univ. of Alabama, Univ. of Washington, NIDDK.*
- 1:00 HH3 **473.13** Mechanisms of endometriosis-associated hyperalgesia in a rat model: Sensory-sympathetic coupling. S. T. PYATOK; S. L. MCALLISTER; N. DMITRIEVA; B. K. GIOURGAS; E. K. FAIRCLOTH; K. J. BERKLEY*. *Florida State Univ., Florida State Univ.*
- 2:00 HH4 **473.14** Endometriosis (ENDO)-induced vaginal hyperalgesia in the rat: sensory and sympathetic innervation of the ectopic growths but not eutopic uterus contribute to vaginal hyperalgesia. S. L. MCALLISTER*; S. A. PYATOK; E. K. FAIRCLOTH; B. K. GIOURGAS; K. J. BERKLEY. *Florida State Univ.*
- 3:00 HH5 **473.15** ▲ Estrous influences on the severity of vaginal hyperalgesia in a rat model of endometriosis (ENDO): a pilot study of spinal cord estrogen receptors (ER). B. GIOURGAS*; L. NIKONOVA; A. J. HERZOG; S. L. MCALLISTER; N. DMITRIEVA; L. A. ECKEL; K. J. BERKLEY. *Florida State Univ.*
- 4:00 HH6 **473.16** ● The effect of the anti-estrogen drug ZK0186619 on vaginal hyperalgesia in a rat model of endometriosis: involvement of cyst innervation. N. DMITRIEVA*; E. K. FAIRCLOTH; F. SACHER; K. J. BERKLEY. *Florida State Univ., Bayer Pharma AG.*
- 1:00 HH7 **473.17** ● Activation of guanylate cyclase C receptors attenuates peripheral drive from mouse colorectal afferents. B. FENG*; M. E. KIYATKIN; L. JUN-HO; G. F. GEBHART. *Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 2:00 HH8 **473.18** ● Nerve growth factor modulates TRPV1 trafficking on urothelial cells. A. COELHO; A. S. WOLF-JOHNSTON*; S. SHINDE; A. AVELINO; F. CRUZ; L. BIRDER. *Univ. of Porto, Univ. Pittsburgh.*
- 3:00 HH9 **473.19** Central amygdala mGluR5 in the modulation of visceral pain. B. J. KOLBER*; L. CROCK; C. MORGAN; S. VOGT; M. BRUCHAS; R. GEREAU, IV. *Duquesne Univ., Washington Univ. in St. Louis, Duquesne Univ., Washington Univ. in St. Louis, Washington Univ. in St. Louis.*
- 4:00 HH10 **473.20** Cross-talk regulation of nts neurons in the electroacupuncture analgesia effect in rat with colorectal distention (crd). X. GAO*; K. LIU#; H. BEN; Y. ZHAO; B. ZHU*. *China Acad. of Chinese Med. Sciences/ Acupuncture & Moxibustion.*
- 1:00 HH11 **473.21** The brain networks encoding visceral pain in diabetes mellitus. D. LELIC*; C. BROCK; M. SIMRÉN; J. B. FRØKJÆR; E. SØFTELAND; A. M. DREWES. *Aalborg Hospital, Aarhus Univ. Hosp., Sahlgrenska Academy, Univ. of Gothenburg, Aalborg Hospital, Aarhus Univ. Hosp., Haukeland Univ. Hosp., Inst. of Medicine, Univ. of Bergen, Aalborg Univ.*
- 2:00 HH12 **473.22** Estrogen modulation of spinal GluN2B subunit in a visceral pain model in the rat. Y. JI*; D. CAO; G. BAI; R. TRAUB. *Univ. of Maryland, Baltimore.*

POSTER

474. Stimulus Feature Receptive Fields and Response Properties

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 HH13 **474.01** Laminar differences in cortical receptive fields measured by reverse correlation of intracellular recordings. A. RAMIREZ*; E. PNEVMATIKAKIS; L. PANINSKI; K. MILLER; R. BRUNO. *Columbia Univ.*
- 2:00 HH14 **474.02** Physical factors influencing pleasant touch during tactile exploration. A. D. KLÖCKER*; M. WIERTLEWSKI; V. THÉATE; V. HAYWARD; J. THONNARD. *Univ. Catholique de Louvain / IONS, Inst. des Systèmes Intelligents et de Robotique.*
- 3:00 HH15 **474.03** Examining simultaneous neural encoding of multiple tactile parameters. J. C. TANNER*; V. J. SANTOS; S. I. HELMS TILLERY. *Arizona State Univ., Arizona State Univ.*
- 4:00 HH16 **474.04** Vibration detection and afferent signal processing by tarsal slit sensilla of sand scorpions. P. H. BROWNELL*; B. GROTHE. *Western Univ. of Hlth. Sci., LMU.*
- 1:00 HH17 **474.05** Tactile gating in a reaching and grasping movement. F. L. COLINO*; G. BINSTED. *Univ. of British Columbia Okanagan, Univ. of British Columbia Okanagan.*
- 2:00 HH18 **474.06** Tactile motion signals in primate S1 cortex in relation to tactile speed and the physical characteristics of raised-dot surfaces. A. DEPEAULT; E. MEFTAH; C. CHAPMAN*. *Univ. Montreal, Univ. Montreal.*
- 3:00 HH19 **474.07** Task distractor responses in somatosensory cortex are suppressed during discrimination. D. T. BLAKE*; E. SPINGATH. *Med. Col. Georgia.*
- 4:00 HH20 **474.08** Enhancement of sensory processing in the urinary bladder. Z. C. DANZIGER*; W. GRILL. *Duke Univ., Duke Univ.*
- 1:00 II1 **474.09** Experience-dependent plasticity of S1 cutaneous digital receptive field size in rhesus monkeys. E. MEFTAH*; A. CIBULSKA-KLOSOWICZ; C. E. CHAPMAN. *Univ. Montreal, Lab. of Neuroplasticity Nencki Inst.*
- 2:00 II2 **474.10** ● Electroconductive polymer based flexible interface for rat barrel cortex. S. TSUKADA*; H. NAKASHIMA; K. TORIMITSU; K. SUMITOMO. *NTT Basic Res. Lab.*
- 3:00 II3 **474.11** A simple model of complex processing in human tactile afferent neurons. A. PRUSZYNSKI*; R. S. JOHANSSON. *IMB Physiology, Umea Univ.*
- 4:00 II4 **474.12** Modulation of event-related potentials by deviance detection during mismatch negativity-like oddball paradigm in rat Barrel Cortex. M. MACHADO LEMOS RODRIGUES*; S. KLEIN; K. FUNKE. *Ruhr-University.*
- 1:00 II5 **474.13** A locally generated theta rhythm in rat somatosensory cortex which interacts with tactile input. A. FRANSEN; G. DIMITRIADIS; E. MARIS*. *Donders Inst. for Brain, Cognition and Behaviour, Donders Inst. For Brain, Cognition, and Behavior.*

2:00 II6 **474.14** Stimulus specific adaptation to repeated stimuli and enhanced responses to oddball stimuli in the rat barrel cortex - An animal model for human mismatch negativity? S. KLEIN*; M. MACHADO LEMOS RODRIGUES; K. FUNKE. *Ruhr-University*.

POSTER

475. Spinal Cord Injury: Recovery II

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 II7 **475.01** The rat motor cortex orchestrates the recovery of locomotion after a severe spinal cord injury. R. VAN DEN BRAND*; J. DIGIOVANNA; J. HEUTSCHI; N. DOMINICI; Q. BARRAUD; P. MUSIENKO; S. MICERA; G. COURTINE. *Ctr. for Neuroprosthetics and BMI, Life Sciences, EPFL, Translational Neural Engin. Lab, Ctr. for Neuroprosthetics, EPFL, Scuola Superiore Sant'Anna*.
- 2:00 II8 **475.02** Chaotic remodeling of spinal neuronal circuitries leads to a degradation of function in the chronic state of a severe spinal cord injury. Q. BARRAUD*; J. HEUTSCHI; R. VAN DEN BRAND; L. FRIEDLI; P. MUSIENKO; V. DIETZ; G. COURTINE. *EPFL - Ctr. For Neuroprosthetics, Spinal Cord Injury Centre, Balgrist Univ. Hosp.*
- 3:00 II9 **475.03** Non-human primates and humans show greater functional recovery than rats after similar spinal cord injury. L. F. FRIEDLI*; E. S. ROSENZWEIG; Q. BARRAUD; N. DOMINICI; L. AWAI; M. SCHUBERT; J. NIELSON; S. C. STRAND; P. MUSIENKO; H. ZHONG; S. ZUDNOWSKI; R. R. ROY; A. R. FERGUSON; A. CURT; V. R. EDGERTON; M. H. TUSZYNSKI; G. COURTINE. *Ctr. For Neuroprosthetics and Brain Mind Institute, EPFL, Univ. of California San Diego (UCSD) and Veterans Admin. Med. Ctr., Balgrist Univ. Hospital, Univ. of Zurich, Univ. of California San Francisco (UCSF), Univ. of California Davis (UCD), Univ. of California Los Angeles (UCLA), Univ. of California Los Angeles (UCLA), Univ. of California Los Angeles (UCLA)*.
- 4:00 II10 **475.04** Online optimization of multisite electrical spinal cord stimulation increases consistency of stepping and limb control in spinal rats. E. MARTIN MORAUD*; N. WENGER; J. DIGIOVANNA; P. MUSIENKO; M. MORARI; G. COURTINE; S. MICERA. *Neuroprosthesis Control Group, Automatic Control Laboratory, ETH Zurich, Translational Neural Engin. Lab, Ctr. for Neuroprosthetics, Ecole Polytechnique Federale de Lausanne (EPFL), Ctr. for Neuroprosthetics and Brain Mind Institute, Sch. of Life Sciences, EPFL, The BioRobotics Institute, Scuola Superiore Sant'Anna*.
- 1:00 II11 **475.05** Multi-system neurorehabilitation restores voluntary locomotion after a severe spinal cord contusion. J. HEUTSCHI*; L. FRIEDLI; M. H. LIESDEK; S. DUIS; R. VAN DEN BRAND; G. COURTINE. *Ctr. For Neuroprosthetics and Brain Mind Institute, EPFL, Univ. of Amsterdam (UvA)*.
- 2:00 II12 **475.06** Robotic, neuroprosthetic, and analytical toolbox to investigate locomotor recovery after CNS disorders in mice. I. VOLLWEIDER*; J. VON ZITZEWITZ; A. TAKEOKA; P. MUSIENKO; H. VALLERY; S. LACOUR; C. WOOLF; Z. HE; S. ARBER; G. COURTINE. *Ctr. for Neuroprosthetics and Brain Mind Institute, EPFL, ETH, ETH, Univ. of Basel and FMI, Kalifa Univ., Harvard Med. Sch.*

- 3:00 II13 **475.07** Adaptive electrical stimulation of spinal locomotor networks controls foot trajectory in spinal rats. N. WENGER*; E. MARTIN-MORAUD; S. RASPOPOVIC; M. BONIZZATO; J. F. DIGIOVANNA; P. MUSIENKO; S. MICERA; G. COURTINE. *Ctr. for Neuroprosthetics, Swiss Federal Inst. of Technol. (EPFL), Swiss Federal Inst. of Technol. (EPFL), Swiss Federal Inst. of Technol. (ETHZ), Scuola Superiore Sant'Anna*.
- 4:00 II14 **475.08** Short-term recovery of interlimb coordination during locomotion in a rodent model with incomplete spinal cord injury after less invasive neuromuscular electrical stimulation therapy. T. KANCHIKU*; H. SUZUKI; Y. IMAJO; Y. YOSHIDA; A. MORIYA; Y. SUETOMI; T. MURAKAMI; T. TAGUCHI. *Yamaguchi Univ. Grad. Sch. of Med.*
- 1:00 II15 **475.09** ● Smart-e-Pants: A novel neural prosthetic device for the prevention of deep tissue injury in spinal cord injury and other neurological disorders. R. A. WARWARUK ROGERS; A. AHMETOVIC; D. SCHNEPF; R. SOMMER; L. KAWASAKI; G. ISSACSON; V. MUSHAHWAR; M. CHAN; S. P. DUKELOW*. *Univ. of Calgary, Univ. of Alberta, Allen Gray Continuing Care Ctr., Glenrose Rehabil. Hosp., Univ. of Alberta, Univ. of Alberta, Univ. of Alberta, Univ. of Calgary, Univ. of Calgary*.
- 2:00 II16 **475.10** Anodal transcranial direct current stimulation to the primary motor cortex enhances the aftereffects of patterned electrical stimulation among patients with incomplete spinal cord injury. T. YAMAGUCHI*; T. FUJIWARA; Y. A. TSAI; S. C. TANG; M. LIU. *Keio Univ. Sch. of Med., Res. Fellow of the Japan Society for the Promotion of Sci., Taipei Veterans Gen. Hosp., Natl. Yang Ming Univ.*
- 3:00 II17 **475.11** Operant conditioning of tibialis anterior and soleus H-reflex improves spinal reflex modulation and walking function in individuals with motor-incomplete spinal cord injury. K. J. MANELLA*; E. C. FIELD-FOTE. *Univ. of St. Augustine - Austin TX, Univ. of Miami Miller Sch. of Med.*
- 4:00 II18 **475.12** The more things change the more they remain the same: The effects of H-reflex conditioning on locomotion. L. CHEN*; Y. CHEN; R. LIU; Y. WANG; J. R. WOLPAW; X. CHEN. *Wadsworth Ctr, NYS Dept Hlth. & SUNY*.
- 1:00 II19 **475.13** Operant conditioning of soleus stretch reflex in humans. Y. MAKIHARA*; P. B. SILVA; A. K. THOMPSON; N. MRACHACZ-KERSTING. *Aalborg Univ., Helen Hayes Hospital, NYS Dept. Hlth., Wadsworth Center, NYS Dept. Hlth., Columbia Univ., State Univ. of New York at Albany*.
- 2:00 II20 **475.14** H-reflex up-conditioning in spinal cord-injured rats and the associated locomotor improvement persist for at least 100 days after conditioning ends. Y. CHEN*; L. CHEN; R. LIU; Y. WANG; J. R. WOLPAW; X. CHEN. *Wadsworth Ctr, NYS Dept Hlth. & SUNY*.
- 3:00 JJ1 **475.15** A negotiated equilibrium: the role of spinal cord plasticity in motor learning. J. R. WOLPAW*; X. Y. CHEN. *Wadsworth Ctr, NYS Dept Hlth.*
- 4:00 JJ2 **475.16** H-reflex conditioning affects GABA_B receptors in rat soleus motoneurons. Y. WANG*; L. H. YAO; L. CHEN; Y. CHEN; J. R. WOLPAW; X. Y. CHEN. *Wadsworth Ctr, NYS Dept Hlth. & SUNY*.
- 1:00 JJ3 **475.17** Inferior olive ablation prevents acquisition and long-term maintenance of soleus H-reflex down-conditioning in rats. X. CHEN*; Y. CHEN; L. CHEN; R. LIU; Y. WANG; L. H. YAO; J. R. WOLPAW. *Wadsworth Ctr, NYS Dept Hlth. & SUNY*.

Mon. PM

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 JJ4 **475.18** ● Operant down-conditioning of the soleus H-reflex can improve gait in people with spasticity due to chronic incomplete spinal cord injury. A. THOMPSON*; F. POMERANTZ; J. WOLPAW. *Helen Hayes Hosp NYS Dept Hlth., Wadsworth Center, NYS Dept. Hlth., Neurolog. Institute, Columbia Univ., State Univ. of New York at Albany.*
- 3:00 JJ5 **475.19** ● Similarities and differences between H reflexes and Multisegmental Motor Responses. S. UZUN*; M. A. SABBAHI; F. OVAK BITTAR; A. ABDILAH. *Marmara Univ., Texas Electrophysiology Services, Texas Woman's Univ.*
- 4:00 JJ6 **475.20** ● Role of the basal ganglia for the motor recovery after spinal cord injury. M. SAWADA*; T. ISA; H. ONOE; Y. NISHIMURA. *Natl. Inst. For Physiological Sci., Grad Sch. of Kyoto Univ., RIKEN, JST-PRESTO, SOKENDAI.*
- 1:00 JJ7 **475.21** ● Endogenous proliferative response after spinal cord injury. A. MCDONOUGH*; A. HOANG; S. GREENHALGH; V. MARTÍNEZ CERDEÑO. *Inst. For Pediatric Regenerative Med., Univ. of California, Davis, Univ. of California, Davis, Shriners Hosp. for Children Northern California.*
- 2:00 JJ8 **475.22** Osteocalcin reduces bone loss but delays recovery in mice following spinal cord injury. P. PATTERSON-BUCKENDAHL; A. SOWINSKA; J. PATEL; M. LU; S. PAGKALINAWAN; L. A. POHORECKY-DOLINSKY*; D. SUN; D. BENJAMIN. *Rutgers Univ., Rutgers Univ., Rutgers Univ., Cenoxsys Corp.*
- 3:00 JJ9 **475.23** Healing waters and intrathecal serotonin in the restoration of function in chronic spinal cord injury. A. I. KAPLIN*; K. RAHN; A. RIEHM; A. BAKARE; J. CHENG; S. PATEL; C. UNSER; D. BECKER. *Johns Hopkins Univ. SOM, Oxford Med. Sch., George Washington Univ., Kennedy Krieger Inst.*
- 4:00 JJ10 **475.24** Orchestrated monocyte trafficking to the injured spinal cord via the blood-cerebrospinal fluid barrier; a leaky blood-brain-barrier is not the preferred route. R. SHECHTER*; O. MILLER; G. YOVEL; N. ROSENZWEIG; A. LONDON; J. RIST; K. KIM; S. JUNG; M. SCHWARTZ. *Weizmann Inst. Sci.*
- 1:00 JJ11 **475.25** Neuromodulation of motor evoked potentials in leg muscles induced by epidural stimulation with an array electrode in humans with a motor complete spinal cord injury. S. J. HARKEMA*; Y. GERASIMENKO; A. WILLHITE; C. FERREIRA; M. MENG; V. SMITH; C. ANGELI; V. EDGERTON. *Univ. Louisville, Frazier Rehab Inst, KSCIRC, Univ. of California - Los Angeles, Univ. of Louisville, Frazier Rehab Inst., Univ. of California-Los Angeles.*
- 2:00 JJ12 **475.26** Improvements in level of recovery of task specific voluntary control of lower limbs with lumbosacral epidural stimulation and training after chronic complete paralysis. C. A. ANGELI*; V. EDGERTON; Y. GERASIMENKO; S. HARKEMA. *Frazier Rehab Inst., Univ. of Louisville, Univ. of California-Los Angeles.*
- 3:00 JJ13 **475.27** Features of blood pressure and heart rate responses induced by the lumbosacral spinal cord epidural stimulation with an array electrode in a human with a motor complete spinal cord injury. S. C. ASLAN*; S. J. HARKEMA; C. A. ANGELI; A. KRASSIOUKOV; J. HODES. *Univ. Louisville, Frazier Rehab Inst., Univ. Louisville, Univ. of British Columbia.*

POSTER

476. Arthropod Motor Systems: Cellular Properties

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 JJ14 **476.01** Neuromodulation maintains channel mRNA correlations in neurons of the stomatogastric ganglion. S. TEMPORAL*; D. J. SCHULZ. *Univ. of Missouri, Univ. of Missouri-Columbia.*
- 2:00 JJ15 **476.02** The role of *Drosophila* flight motoneuron somatodendritic cacophony calcium current in flight behavior. D. KADAS; S. C. RYGLEWSKI*; A. J. KINDELIN; C. DUCH. *Arizona State Univ., Arizona State Univ.*
- 3:00 JJ16 **476.03** Dynamic compensatory mechanisms in conductance correlation models. J. GOLOWASCH; M. OLARINRE; H. G. ROTSTEIN*. *NJIT, NJIT.*
- 4:00 KK1 **476.04** Different versions of a rhythmic motor pattern in the isolated CNS persist at the muscle tension and behavioral levels. F. M. DIEHL*; W. STEIN; M. P. NUSBAUM. *Ulm Univ., Illinois State Univ., Perelman Sch. of Med, Univ. of Pennsylvania.*
- 1:00 KK2 **476.05** Multisensory interactions in the stomatogastric nervous system: Modulation of a proprioceptive sensory pathway by descending olfactory projection neurons. C. STAEBELE*; W. STEIN. *Illinois State Univ., Ulm Univ.*
- 2:00 KK3 **476.06** ▲ Comparison of fast voltage-sensitive dyes used for imaging neuronal activities in the stomatogastric nervous system of crustaceans. S. PREUSS*; W. STEIN. *Ulm Univ., Illinois State Univ.*
- 3:00 KK4 **476.07** CPG neuron possesses a small widow of synaptic efficacy to encode activity in a coordinating neuron. C. R. SMARANDACHE-WELLMANN*. *Univ. of Cologne.*
- 4:00 KK5 **476.08** Intrinsic encoding properties of coordinating neurons and motor neurons in the crayfish swimmeret system. T. M. WRIGHT, Jr.; B. MULLONEY*. *Univ. of California Davis, Univ. of California Davis.*
- 1:00 KK6 **476.09** Characterization of synaptic interaction between neurons responsible for coordination of a chain of oscillators. H. SEICHTER*; M. HOCHHAUS; C. SMARANDACHE-WELLMANN. *Univ. of Cologne.*
- 2:00 KK7 **476.10** Rapid homeostatic plasticity of intrinsic excitability and electrical synapse strength in a central pattern generator network stabilizes neuron and network output. J. L. RANDELL*; S. S. NAIR; D. J. SCHULZ. *Univ. of Missouri- Columbia.*
- 3:00 KK8 **476.11** Degradation of chondroitin sulfate proteoglycans in an invertebrate central pattern generator alters homeostatic maintenance of rhythmic activity. A. E. HUDSON*; C. TANG; A. A. PRINZ. *Emory Univ., Georgia Inst. of Technol., Emory Univ.*
- 4:00 KK9 **476.12** Localization of gap junction proteins in the crab stomatogastric ganglion. M. GOERITZ*; S. SHRUTI; E. MARDER. *Brandeis Univ.*

POSTER

477. Cerebellum: Cortex and Nuclei

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 KK10 **477.01** Role of GABA-A receptors in the canal-signal transformation carried out by the cerebellar nodulus and uvula. T. A. YAKUSHEVA*; D. E. ANGELAKI; P. M. BLAZQUEZ. *Washington Univ., Baylor College.*
- 2:00 KK11 **477.02** Network connectivity and information processing in the cerebellar input layer. G. O. BILLINGS*; A. LÖRINCZ; Z. NUSSE; R. SILVER. *Univ. Col. London, Hungarian Acad. of Sci.*
- 3:00 KK12 **477.03** Cerebellar cortical activation evoked by granule cell input: A re-evaluation of the beam and radial hypotheses. S. W. CRAMER; W. GAO; G. CHEN; T. J. EBNER*. *Univ. Minnesota.*
- 4:00 KK13 **477.04** ▲ c-Fos expression in the cerebellum in response to chronic dopaminergic alterations. G. HERRERA-MEZA*; L. AGUIRRE; G. CORIA-AVILA; L. LOPEZ; J. MANZO; L. I. GARCIA; M. MIQUEL. *CENTRO DE INVESTIGACIONES CEREBRALES, Doctorado en Neuroetologia, Jaume I.*
- 1:00 KK14 **477.05** ● Electrical contribution of postsynaptic T-type calcium channels to parallel fiber-Purkinje cell synaptic transmission. R. LY*; V. UEBELE; J. RENGGER; H. PROSSER; A. RANDALL; M. KANO; K. SAKIMURA; B. BARBOUR; P. ISOPE; A. FELTZ. *IBENS - Equipe Cervelet, Merck Res. Labs, Wellcome Trust Sanger Inst., Univ. of Bristol, Univ. of Tokyo, Niigata Univ., Univ. de Strasbourg.*
- 2:00 KK15 **477.06** ● Signal degradation in the cerebellum selectively disrupts different aspects of motor learning. G. Q. ZHAO*; T. NGUYEN-VU; S. SHIN; Y. LI; R. W. TSIEN; G. S. BARSH; J. R. RAYMOND. *Stanford Univ., Stanford Univ., Stanford Univ.*
- 3:00 KK16 **477.07** Representation of behaviors in the cerebellum: Spike rate modulation vs spike timing. Y. CAO*; S. MARAN; D. JAEGER; D. HECK. *Univ. of Tennessee Hlth. Sci. Ctr., Dept. of Biology, Emory Univ.*
- 4:00 KK17 **477.08** Mimicking natural mossy fiber inputs in specific modules of the cerebellar cortex *in vitro*. F. BINDA*; S. A. PAWLOWSKI; J. F. CASELLA; J. L. DUPONT; S. REIBEL; P. KOEBEL; B. POULAIN; P. ISOPE. *CNRS, Chronobiotron, IGBMC.*
- 1:00 KK18 **477.09** Large scale synchrony in the cerebellum. J. GROTH*; G. ORDEK; M. SAHIN. *New Jersey Inst. of Technol.*
- 2:00 KK19 **477.10** The rate and regularity of Purkinje cell spiking affects the signal transfer of behavior locked rate modulation in the cerebellar cortico-nuclear pathway. S. M. SELANDIPALAYAM*; Y. CAO; D. HECK; D. JAEGER. *Emory Univ., UTHSC.*
- 3:00 KK20 **477.11** Membrane potential dynamics of cerebellar Purkinje cells and interneurons during voluntary locomotion. M. JELITAI; I. C. DUGUID*. *Univ. of Edinburgh.*
- 4:00 LL1 **477.12** Cerebellar inhibition of amygdala fear response. A. MAGAL*; M. MINTZ. *Tel-Aviv Univ.*
- 1:00 LL2 **477.13** How the maximum amplitude or duration of conditioned stimuli determines the timing of conditional responses: An experimental study of the rabbit nictitating membrane response. M. HIRONO*; T. HONDA; K. UCHINO; H. IBI; H. KITAZAWA; M. ANZAI; T. YAMAZAKI; M. NAKAGAWA; S. NAGAO. *Lab. for Motor Learning Control, RIKEN Brain Sci. Inst., JSPS, Dept Elect Eng, Nagaoka Univ. Tech., Dept Histol and Neuroanat, Tokyo Med. Univ., Univ. Electro-Comm.*
- 2:00 LL3 **477.14** Synaptotagmin 2 is tightly coupled to presynaptic Ca²⁺ channels and functions as the major Ca²⁺ sensor of fast transmitter release in cerebellar inhibitory synapses. I. ARAI; M. BARTOS*; P. JONAS. *Inst. of Sci. and Technol. (IST) Austria, Univ. Freiburg.*
- 3:00 LL4 **477.15** Cerebellar motor sequence acquisition: A computational study. A. E. KAHN; A. MAGAL; R. HOGRI; M. MINTZ*. *Tel Aviv Univ.*
- 4:00 LL5 **477.16** The activity of cerebellar Purkinje cells contributes to the induction of motor learning. T. NGUYEN-VU*; A. KOHLI; K. DEISSEROTH; J. L. RAYMOND. *Stanford Univ., Stanford Univ.*
- 1:00 LL6 **477.17** Basis functions for cerebellar-inspired control of soft-smart materials. E. D. WILSON*; S. R. ANDERSON; P. DEAN; J. PORRILL. *Sheffield Univ.*
- 2:00 LL7 **477.18** How the maximum amplitude or duration of conditioned stimuli determines the timing of conditional responses: A computational study of a cerebellar spiking network model. T. HONDA*; T. YAMAZAKI; M. HIRONO; S. NAGAO. *RIKEN Brain Sci. Inst., JSPS Res. Fellow (PD), Univ. of Electro-Communications.*
- 3:00 LL8 **477.19** Control of movement by optogenetic decreases in Purkinje cell activity. S. A. HEINEY*; G. AUGUSTINE; J. F. MEDINA. *Univ. of Pennsylvania, Duke-NUS Grad. Med. Sch., Korea Inst. of Sci. and Technol.*
- 4:00 LL9 **477.20** Closed-loop interface with the olivocerebellar system. R. HOGRI*; D. KONFORTY; E. SEGALIS; A. MAGAL; S. A. BAMFORD; R. PRUECKL; C. GUGER; M. MINTZ. *Psychobiology Res. Unit, Sch. of Psychological Sciences, Tel Aviv Univ., Tel Aviv Univ., Inst. Superiore di Sanità, Guger Technologies.*
- 1:00 LL10 **477.21** Characterization of Purkinje cell inputs onto subtypes of medial vestibular nucleus neurons that mediate cerebellar learning. K. J. KELLEHER; T. KODAMA*; S. DU LAC. *Salk Inst.*
- 2:00 LL11 **477.22** Dendritic specialization within the mammalian cerebellar nuclei revealed by 3D-reconstruction and an unbiased population-based analysis. S. HAMODEH; I. SUGIHARA; F. R. SULTAN*. *Univ. Tuebingen, Tokyo Med. and Dent. Univ. Grad. Sch. of Med.*
- 3:00 LL12 **477.23** *In vivo* calcium dynamics in cerebellar Purkinje cell dendrites. T. MICHIKAWA*; A. MIYAWAKI; S. KAKEI; M. HAUSER; S. ITOHARA; J. NAKAI. *Brain Sci. Institute, Saitama Univ., RIKEN Brain Sci. Inst., RIKEN Brain Sci. Inst., Tokyo Metropolitan Inst. of Med. Sci., Wolfson Inst. for Biomed. Research, Univ. Col. London.*
- 4:00 LL13 **477.24** Movement deficits produced by inferior olive lesion are subdivision specific. K. M. HORN*; A. DEEP; A. R. GIBSON. *Barrow Neurolog. Inst.*
- 1:00 LL14 **477.25** Multiple bursting evoked by mossy fiber bundle stimulation in unipolar brush cells: Experimental evidence and computational modeling. F. LOCATELLI; S. SUBRAMANIAM; F. PRESTORI; S. SOLINAS; L. MAPELLI*; S. MASETTO; E. D'ANGELO. *Univ. of Pavia, IRCCS C. Mondino.*

Mon. PM

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 LL15 **477.26** Analysis of a detailed model of granular layer processing: can it support the computations required by the adaptive filter model of the cerebellum? C. RÖSSERT*; P. DEAN; S. SOLINAS; E. D'ANGELO; J. PORRILL. *Univ. of Sheffield, Univ. of Pavia.*
- 3:00 LL16 **477.27** Is motor learning encoded by structural alterations in cerebellar parallel fibers? O. C. WINTER*; L. LI; J. L. RAYMOND. *Stanford Dept of Neurobio., Stanford Univ.*
- 4:00 LL17 **477.28** Theta-frequency resonance in the cerebellum granular layer circuit. E. D'ANGELO*; P. LOMBARDO; D. GANDOLFI; J. MAPELLI; S. SOLINAS. *Univ. of Pavia, IRCCS C.Mondino, Univ. of Modena.*
- 1:00 LL18 **477.29** Effects of the conditional stimulus on Golgi cell activity during classical conditioning of the eye-blink response in the decerebrate ferret. A. RASMUSSEN*; R. ZUCCA; D. JIRENHED; J. F. JOHANSSON; C. ÖRTENBLAD; P. SVENSSON; G. HESSLOW. *Lund Univ., The Lab. for Synthetic, Perceptive, Emotive and Cognitive Systems (SPECS), Univ. Pompeu Fabra.*
- 2:00 LL19 **477.30** A 7T fMRI study of cerebellar activation in sequential finger movement tasks. M. R. STEFANESCU*; M. THÜRLING; S. MADERWALD; T. WIESTLER; M. E. LADD; J. DIEDRICHSEN; D. TIMMANN. *Univ. of Duisburg-Essen, Erwin L. Hahn Inst. for Magnetic Resonance Imaging, Inst. of Cognitive Neurosci., Dept. of Diagnos. and Interventional Radiology and Neuroradiology.*
- 4:00 MM7 **478.08** Effects of limiting movement range of the center of foot pressure on postural control during arm flexion. K. FUJIWARA*; C. YAGUCHI; M. IREI. *Kanazawa Univ., Hokkaido Bunkyo Univ.*
- 1:00 MM8 **478.09** Laterality of the postural steadiness during one-leg stance in static and dynamic balance condition. T. KIYOTA*; K. FUJIWARA. *Fac. of Humanities, Sapporo Intl. Univ., Kanazawa Univ.*
- 2:00 MM9 **478.10** Muscle synergies of feed-forward postural adjustments during reaching to multi-directional targets in standing. J. A. LEONARD*; S. A. CHVATAL; L. H. TING; P. J. STAPLEY. *McGill Univ., Georgia Tech. and Emory Univ., Univ. of Wollongong.*
- 3:00 MM10 **478.11** • Asymmetry of foot position and weight distribution and the inter-leg coordination dynamics of standing. Z. WANG*; K. NEWELL. *The Pennsylvania State Univ., The Pennsylvania State Univ.*
- 4:00 MM11 **478.12** Compensatory postural coordination patterns as a function of rhythmical perturbation. J. KO*; J. CHALLIS; K. M. NEWELL. *The Pennsylvania State Univ., The Pennsylvania State Univ., The Pennsylvania State Univ.*
- 1:00 MM12 **478.13** The effects of load type on time-to-task failure on the trunk flexors. S. R. OBERST; C. M. WALL; J. S. THOMAS*. *Ohio Univ., Ohio Univ.*
- 2:00 MM13 **478.14** EMG patterns during different methods of the sit-to-stand task. B. ETNYRE*. *Rice Univ.*
- 3:00 MM14 **478.15** Gait modification in healthy individuals following robot-assisted balance training. S. KIM*; K. REED. *Univ. of South Florida, Univ. of South Florida.*
- 4:00 MM15 **478.16** A novel optic flow pattern can speed locomotor learning. J. M. FINLEY*; M. A. STATTON; A. J. BASTIAN. *Kennedy Krieger Inst., Johns Hopkins Univ.*
- 1:00 MM16 **478.17** Effect of lower limb end-effector robot-assisted therapy with body weight-support vs treadmill gait training in Parkinson's patients. P. SALE*; D. LE PERA; F. STOCCHI; M. DE PANDIS; E. PALMA; M. FRANCESCHINI. *IRCCS San Raffaele Pisana, IRCCS San Raffaele Pisana, San Raffaele.*
- 2:00 MM17 **478.18** Gait transitions in human infants: Can babies run? E. V. VASUDEVAN*; S. K. PATRICK; J. F. YANG. *Moss Rehab Res. Inst., Univ. of Alberta, Univ. of Alberta.*
- 3:00 MM18 **478.19** Reliability of treadmill gait dynamic measures. D. VERNIBA*; A. WEGLARZ; W. GAGE. *York Univ.*
- 4:00 MM19 **478.20** Changes in relative activity of faster and slower motor unit populations in feline ankle extensors during locomotion following self-reinnervation. A. PANTALL*; E. F. HODSON-TOLE; R. J. GREGOR; B. I. PRILUTSKY. *Georgia Inst. of Technol., Manchester Metropolitan Univ., USC.*
- 1:00 MM20 **478.21** Performance during cutting manoeuvres relates to timing of motor module activations. A. S. OLIVEIRA*; U. G. KERSTING; D. FARINA. *Aalborg Univ., Capes Foundation, Ministry of Educ. of Brazil, Dept. of Neurorehabilitation Engineering, Bernstein Focus Neurotechnology Göttingen, Bernstein Ctr. for Computat. Neuroscience, Univ. Med. Ctr. Göttingen, Georg-August Univ.*

POSTER

478. Posture and Gait: Kinematics, Muscle Activity, Exercise and Fatigue, Biomechanics

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 LL20 **478.01** Effects of strength and motor imagery training on corticomuscular signal coupling in aging. M. B. BAYRAM*; D. CUNNINGHAM; C. BONNETT; B. MAMONE; E. B. PLOW; J. HOU; V. SIEMIONOW; G. H. YUE. *Cleveland Clin., Cleveland State Univ., Kent State Univ., Cleveland Clin., Kessler Fndn. Res. Ctr.*
- 2:00 MM1 **478.02** Development of a model for movement analysis of squirrel monkey prehension. K. STRÖMBOM; A. GEIER; T. SCHMANKE*; S. BARBAY; R. J. NUDO. *Univ. of Kansas Med. Ctr.*
- 3:00 MM2 **478.03** iWalk, a gait analysis device incorporating an iPod wireless accelerometer application. R. C. LEMOYNE*; T. MASTROIANNI. *Independent.*
- 4:00 MM3 **478.04** Estimating leg stiffness and damping during running. M. VENKADESAN*; L. MAHADEVAN; D. E. LIEBERMAN. *Natl. Ctr. For Biol. Sci., Harvard Univ., Harvard Univ.*
- 1:00 MM4 **478.05** Kinematic and kinetic patterns of treadmill walking in preadolescent children. J. WU*. *Georgia State Univ.*
- 2:00 MM5 **478.06** Locomotion and skilled locomotion in typically developing five- to six-year-old children. II: Obstacle walking. C. W. CHAU*; S. GOMBATTO; B. CASSIE; J. FLANNERY; K. MANCUSO; C. PILC. *Nazareth Col.*
- 3:00 MM6 **478.07** Locomotor adaptation in a virtual environment affects gait kinetics. M. MUKHERJEE*; J. CHIEN; S. VALLABHAJOSULA; N. STERGIOU. *Univ. of Nebraska At Omaha.*

- 2:00 NN1 **478.22** SYNERGOS index for quantifying multiple muscle activation in squat movements. S. L. GORNIK*; A. POURMOGHADDAM; W. H. PALOSKI; D. P. O'CONNOR; C. S. LAYNE. *Univ. of Houston, Univ. of Houston.*
- 3:00 NN2 **478.23** Generalizability of SYNERGOS index for quantifying multiple muscle activation. A. POURMOGHADDAM*; S. L. GORNIK; D. P. O'CONNOR; W. H. PALOSKI; C. S. LAYNE. *Univ. Houston, Univ. of Houston.*
- 4:00 NN3 **478.24** EMG-driven biomechanical model of the spine during flexion, extension, lateral bending and axial rotation of the lumbar spine. L. M. MCMANUS; M. CURTIN; U. MCCARTHY-PERSSON; M. M. LOWERY*. *Univ. Col. Dublin, Univ. Col. Dublin, Univ. Col. Dublin.*
- 1:00 NN4 **478.25** Regulation of interlimb cutaneous reflexes during walking while maintaining light touch in an unstable environment. J. FORERO*; J. E. MISIASZEK. *Univ. Alberta.*
- 2:00 NN5 **478.26** Influence of ankle plantarflexor fatigue on postural control and associated changes in posture. S. BOYAS*; C. MCGOWN; E. MEDD; Y. LAJOIE; M. BILODEAU. *Univ. of Ottawa.*
- 3:00 NN6 **478.27** Lumbosacral mechanics during an anterior carrying and obstacle avoidance task. J. B. KIRIELLA*; K. HAWKINS; C. PERRY; A. MOORE; W. GAGE. *York Univ., York Univ.*
- 4:00 NN7 **478.28** • Inhibition of the startle response in the cervical multifidus muscle triggered by whiplash collisions. D. W. MANG*; H. J. BROWN; S. C. GOONETILLEKE; G. P. SIEGMUND; J. BLOUIN. *Univ. of British Columbia, Univ. of British Columbia, MEA Forensic Engineers & Scientists, Inst. for Computing, Information and Cognitive Systems (ICICS).*
- 1:00 NN8 **478.29** Exercise induced quadriceps muscle injury disrupts lower body EMG activity during downslope walking. M. SABATIER*; C. BLACK. *Clayton State Univ., The Univ. of Mississippi.*
- 1:00 NN13 **479.05** Impaired H-reflex gain during postural loaded locomotion in individuals post-stroke. J. LIANG; D. A. BROWN*. *Northwestern University, Feinberg Sch. of Med., Northwestern University, Feinberg Sch. of Med., Dept. of Physical Therapy, Univ. of Alabama At Birmingham.*
- 2:00 NN14 **479.06** Beta electroencephalographic changes during threshold of perception of ankle passive motion assessment. D. R. TOLEDO; J. A. BARELA; A. F. KOHN*. *Univ. of Sao Paulo, Unicsul.*
- 3:00 NN15 **479.07** Interactions of touch feedback with muscle vibration and galvanic vestibular stimulation in the control of trunk posture. E. MAASWINKEL*; H. E. J. VEEGER; J. H. VAN DIEËN. *VU Univ. Amsterdam.*
- 4:00 NN16 **479.08** Heterogeneity of spinal interneurons mediating postural limb reflexes. P. V. ZELENIN*; L. HSU; V. F. LYALKA; G. N. ORLOVSKY; T. G. DELIAGINA. *Karolinska Inst.*
- 1:00 NN17 **479.09** • Gait is controlled better with haptic feedback than with vision. K. BEERS; Y. YSHI; H. PETAL; E. RABIN*. *NYCOM/NYIT.*
- 2:00 NN18 **479.10** Evaluation of the effect of change in walking condition on brain activity through electroencephalography. N. FUJIWARA*; S. MORIOKA; H. NAKANO; K. UETA. *Kio Univ., REHASTAGE Co.Ltd.*
- 3:00 NN19 **479.11** Perception of dynamic lower extremity loads in stroke survivors. V. W. CHU*; T. HORNBY; B. D. SCHMIT. *Rehabil. Inst. of Chicago, Univ. of Illinois at Chicago, Marquette Univ.*
- 4:00 NN20 **479.12** Whole cell patch clamp recordings from muscle spindle afferent neurons in intact dorsal root ganglia isolated from mouse. P. JOBLING*; J. F. MADDEN; B. A. GRAHAM. *Univ. of Newcastle.*
- 1:00 OO1 **479.13** Posture control during one-leg quiet standing is improved with sub-sensory electrical stimulation to muscles on rigid but not viscoelastic surface. R. ISHIBASHI*; M. ISHIHARA; K. IMANAKA; M. SHINOHARA. *Tokyo Metropolitan Univ., Georgia Inst. of Technol., Atlanta VA Rehabil. R&D Ctr. of Excellence.*
- 2:00 OO2 **479.14** Interlimb communication between knee flexors during a sitting task. A. J. T. STEVENSON; T. SINKJAER*; N. MRACHACZ-KERSTING. *Aalborg Univ.*
- 3:00 OO3 **479.15** Variability of postural sway is reduced with an increase in positive ankle feedback. B. H. DALTON*; B. L. LUU; J. T. INGLIS; H. F. M. VAN DER LOOS; E. A. CROFT; J. BLOUIN. *Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia.*
- 4:00 OO4 **479.16** Does ankle torque or ankle position determine our posture during standing? B. L. LUU*; H. F. M. VAN DER LOOS; J. BLOUIN; E. A. CROFT. *UBC, UBC, UBC.*
- 1:00 OO5 **479.17** Low frequency sensorimotor cortical modulations during passive and active ankle movements at different rates. R. J. MCKINDLES*; B. D. SCHMIT. *Marquette Univ.*
- 2:00 OO6 **479.18** Postural reorganization in response to torso-based co-vibrotactile stimulation. B. LEE; B. J. MARTIN*; K. SIENKO. *Univ. of Michigan, Univ. of Michigan.*

POSTER

479. Posture and Gait: Afferent Control

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 NN9 **479.01** Probing locomotive control with vestibular and mechanical stimuli. D. LOGAN*; T. KIEMEL; P. AGADA; J. BLOUIN; J. JEKA. *Univ. of Maryland, Univ. of British Columbia.*
- 2:00 NN10 **479.02** Integration of sensory force feedback is disturbed in CRPS-related dystonia. W. MUGGE*; F. C. T. VAN DER HELM; A. C. SCHOUTEN. *Delft Univ. of Technol., Northwestern Univ., Univ. of Twente.*
- 3:00 NN11 **479.03** On the association between plantar flexion torque variability in sitting and standing. F. H. MAGALHÃES*; E. M. MELLO; A. F. KOHN. *Univ. De Sao Paulo.*
- 4:00 NN12 **479.04** Impaired foot-force direction regulation during postural loaded locomotion in individuals post-stroke. J. LIANG*; D. A. BROWN. *Northwestern University, Feinberg Sch. of Med., Northwestern University, Feinberg Sch. of Med., Northwestern University, Feinberg Sch. of Med., Northwestern University, Feinberg Sch. of Med.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

480. Brain-Machine Interface: Implanted Electrodes Other Direct Interactions with Neurons

Theme D: Sensory and Motor Systems

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 OO7 **480.01** Encoding and selection of spatial vs object information in primate prefrontal cortex and striatum. I. OPRIS*; L. M. SANTOS; J. L. LONG; J. V. NOTO; B. C. PARRISH; G. A. GERHARDT; R. E. HAMPSON; S. A. DEADWYLER. *Wake Forest Sch. of Med., Univ. of Kentucky.*
- 2:00 OO8 **480.02** Patterned stimulation of prefrontal cortex alters executive decision making by nonhuman primates performing a delayed match to sample task. R. E. HAMPSON*; J. L. LONG; J. V. NOTO; B. C. PARRISH; D. SONG; D. SHIN; V. Z. MARMARELIS; T. W. BERGER; G. A. GERHARDT; S. A. DEADWYLER. *Wake Forest Sch. of Med., USC, Univ. of Kentucky.*
- 3:00 OO9 **480.03** Nonlinear dynamical modeling of the functional connectivity in prefrontal cortex of nonhuman primates during a delayed match-to-sample task. D. SONG*; I. OPRIS; R. H. M. CHAN; V. Z. MARMARELIS; R. E. HAMPSON; S. A. DEADWYLER; T. W. BERGER. *USC, Wake Forest University, Sch. of Med., City Univ. of Hong Kong.*
- 4:00 OO10 **480.04** Decoding the motor cortex-striatum circuit in behaving monkeys. L. M. SANTOS*; I. OPRIS; J. L. LONG; B. C. PARRISH; J. V. NOTO; R. E. HAMPSON; S. A. DEADWYLER. *Wake Forest Sch. of Med.*
- 1:00 OO11 **480.05** • Utah electrode arrays with integrated electronics for controlling high degree-of-freedom neuroprosthetics. L. RIETH*; R. FRANKLIN; P. TATHIREDDY; R. SHARMA; L. WILLIAMS; F. TENORE; M. TÖPPER; H. OPPERMAN; R. HARRISON; F. SOLZBACHER. *Univ. of Utah, Blackrock Microsystems, Johns-Hopkins Applied Physics Lab., Fraunhofer IZM, Intan Technologies, LLC.*
- 2:00 OO12 **480.06** Control of Micturition (Urination): Intrafascicular stimulation of the feline pudendal nerve using a novel high-density penetrating array of electrodes. H. A. WARK*; K. S. MATHEWS; R. SHARMA; P. TATHIREDDY; K. GUSTAFSON; R. A. NORMANN. *Univ. of Utah, Case Western Reserve Univ.*
- 3:00 OO13 **480.07** Bipolar and multi-electrode intrafascicular nerve stimulation improves both selectivity and strength of motor responses. D. R. HILGART*; B. R. DOWDEN; M. A. FRANKEL; D. J. WARREN; G. A. CLARK. *Univ. of Utah.*
- 4:00 OO14 **480.08** • Electrophysiology of sub-millimeter nerves utilizing novel high density Utah slanted electrode arrays. P. TATHIREDDY*; H. WARK; R. SHARMA; K. MATHEWS; E. FERNANDEZ; L. RIETH; F. SOLZBACHER; R. NORMANN. *Univ. of Utah, Univ. of Utah, Univ. Miguel Hernández.*
- 1:00 OO15 **480.09** • Development of optrode arrays for optical neural stimulation. M. DIWEKAR*; T. V. F. ABAYA; P. TATHIREDDY; L. RIETH; F. SOLZBACHER; S. BLAIR; G. A. CLARK. *Univ. of Utah, Univ. of Utah.*
- 2:00 OO16 **480.10** Nerve viability following the acute implantation of high density array (25 electrode/mm²) in rat sciatic nerve. K. S. MATHEWS*; H. A. C. WARK; P. TATHIREDDY; R. SHARMA; R. A. NORMANN. *Univ. of Utah, Univ. of Utah.*
- 3:00 OO17 **480.11** • Improved device control and telemetry reception achieved with design improvements to Integrated Neural Interface - Recording devices. D. J. WARREN*; W. A. SMITH; R. R. HARRISON; P. TATHIREDDY; L. W. RIETH; G. A. CLARK; F. SOLZBACHER. *Univ. of Utah, Univ. of Washington, Intan Technologies, Univ. of Utah, Univ. of Utah.*
- 4:00 OO18 **480.12** Real-time prediction and biofeedback control of individual neurons using spike-related slow potentials. A. JACKSON*; T. M. HALL; K. NAZARPOUR. *Newcastle Univ.*
- 1:00 OO19 **480.13** Restoring sensorimotor hand function by activating and recording from monkey arm nerves with intrafascicular Utah slanted electrode arrays. C. ETHIER*; N. A. SACHS; N. M. LEDBETTER; D. J. WARREN; M. A. FRANKEL; J. M. SOUZA; L. E. MILLER; G. A. CLARK. *Northwestern Univ., Northwestern Univ., Univ. of Utah, Northwestern Univ.*
- 2:00 OO20 **480.14** Noise-enhanced intracortical microstimulation for virtual touch. L. E. MEDINA*; M. A. LEBEDEV; J. E. O'DOHERTY; M. A. L. NICOLELIS. *Duke Univ., Duke Univ., Univ. of California, Univ. of California, Duke Univ., Edmond and Lily Safra Intl. Inst. of Neurosci.*
- 3:00 PP1 **480.15** Chronic recordings of single- and multi-unit neuronal activity with a polymer microelectrode array. K. SHAH*; D. B. MCCREERY; V. TOLOSA; A. TOOKER; T. DELIMA; S. FELIX; H. SHETH; S. PANNU. *Lawrence Livermore Natl. Lab., Huntington Med. Res. Inst.*
- 4:00 PP2 **480.16** Microstimulation detection thresholds rise with repeated stimulation of the same cortical sites. K. GHOSE*; J. H. R. MAUNSELL. *MGH/HMS, Harvard Med. Sch.*
- 1:00 PP3 **480.17** Sleep and wake state detection for practical electrocorticographic brain computer interface applications. M. PAHWA*; M. KUSNER; C. HACKER; D. T. BUNDY; N. SZRAMA; J. D. BRESHEARS; M. SHARMA; A. DAITCH; C. M. GAONA; K. WEINBERGER; E. C. LEUTHARDT. *Washington Univ., Washington Univ., Washington Univ., Washington Univ.*
- 2:00 PP4 **480.18** Decoding grip types from macaque motor, premotor and parietal cortex. H. SCHERBERGER*; S. SCHAFFELHOFER; K. MENZ. *German Primate Ctr.*
- 3:00 PP5 **480.19** Decoding of reach and grasp kinematics from primate premotor, motor, and parietal cortex. V. K. MENZ*; S. SCHAFFELHOFER; H. SCHERBERGER. *German Primate Ctr.*
- 4:00 PP6 **480.20** Decoding covert visuospatial attention direction from human cortical surface activity patterns. N. F. RAMSEY*; J. P. W. PLUIM; P. ANDERSSON. *Rudolf Magnus Institute, Univ. of Utrecht, Univ. Med. Ctr. Utrecht.*
- 1:00 PP7 **480.21** Reconstruction of muscle activities from a small number of electrocorticograms in primary motor cortex. D. SHIN*; H. WATANABE; H. KAMBARA; A. NAMBU; T. ISA; Y. NISHIMURA; Y. KOIKE. *Tokyo Inst. of Technol., Natl. Inst. for Physiological Sci., Grad. Univ. for Advanced Studies, Japan Sci. and Technol. Agency.*
- 2:00 PP8 **480.22** Interactive neuronal embedded system for the controlled delivery of telemetry-based stimulation and real-time response recordings. T. DECOSTA-FORTUNE*; B. MORSHED; C. LI; J. T. RAMSHUR; S. VEMULAPALLI; A. CURRY; R. S. WATERS. *Univ. of Memphis, Univ. of Memphis, Univ. of Tennessee Hlth. Sci. Ctr.*

- 3:00 PP9 **480.23** Extracting neural correlates of ipsilateral reaching movements from human electrocorticography. G. HOTSON*; M. S. FIFER; W. S. ANDERSON; N. V. THAKOR; N. E. CRONE. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*
- 4:00 PP10 **480.24** Reconstruction of multiple arm muscle activities from ECoG potentials in nonhuman primates. S. ZANOS*; A. G. RICHARDSON; E. E. FETZ. *UW Sch. of Med.*
- 1:00 PP11 **480.25** ● Integrated neural amplifier design for Parkinson's disease closed-loop investigation. A. M. ZBRZESKI*; N. LEWIS; R. JUNG; A. BENAZZOUZ; S. RENAUD. *Florida Intl. Univ., Univ. of Bordeaux, IMS, UMR 5218, CNRS, IMS, UMR 5218, Univ. of Bordeaux, IMN, UMR 5293.*
- 2:00 PP12 **480.26** Classification of cortical state under isoflurane, propofol, and ketamine from broadband, wireless neural signals of an implantable neural interface. D. A. BORTON*; M. YIN; J. ACEROS; A. NURMIKKO. *Brown Univ.*
- 3:00 PP13 **480.27** Adaptation of a neuronal ensemble to conditioning in a brain machine interface after spinal cord injury. A. MANOHAR*; R. D. FLINT; K. A. MOXON. *Drexel Univ., Drexel Univ., Drexel Univ.*
- 4:00 PP14 **480.28** ● Development of a biological data cable: optogenetic-based transmission across engineered cortical axonal tracts. H. I. CHEN*; J. A. WOLF; D. H. SMITH. *Univ. of Pennsylvania/Dept of Neurosurg.*
- 1:00 PP15 **480.29** ● Performance characteristics of the Neurotrophic Electrode in primates. P. R. KENNEDY*; E. WRIGHT; J. BARTELS; S. SEIBERT; D. ANDREASEN; M. CLEMENTS; B. MATTHEWS; P. EHIRIM; R. BAKAY. *Neural Signals Inc, Neural Signals Inc, Georgia Tech., Ctr. for Advanced Neurolog. Surgery, Rush Presbyterian Med. Ctr.*
- 2:00 PP16 **480.30** PPy-CNTs coating increases the sensitivity of extracellular neuronal recordings *in vivo*. E. MAGGIOLINI*; A. ANSALDO; E. CASTAGNOLA; A. MAZZONI; G. ANGOTZI; M. SEMPRINI; A. VATO; A. BONFANTI; G. ZAMBRA; A. SPINELLI; S. PANZERI; D. RICCI; L. FADIGA. *RBCS, Inst. Italiano Di Tecnologia, CNCS, Inst. Italiano di Tecnologia, Dept. di Elettronica e Informazione, Politecnico di Milano, Inst. of Neurosci. and Psychology, Univ. of Glasgow, DSBTA, Section of Human Physiology, Univ. of Ferrara.*
- 3:00 PP19 **481.03** P2X7 receptor antagonism reverses UCMS induced depressive like behavior changes in mice. R. FAROOQ*; A. TANTI; E. ISINGRINI; M. NOLLET; S. ROGER; C. BELZUNG; V. CAMUS. *INSERM U930 Equipe 4 Affective Disorders, Inserm U930, Univ. François Rabelais, Inserm U1069, CHRU de Tours, Clinique Psychiatrique Universitaire.*
- 4:00 PP20 **481.04** Increases in Hippocampal HMGB1 following a stressor: Potential mechanism for stress-induced priming of neuroinflammatory responses to a subsequent immune challenge. M. D. WEBER*; M. G. FRANK; L. R. WATKINS; S. F. MAIER. *Univ. of Colorado.*
- 1:00 QQ1 **481.05** Stressor controllability and regional expression of chemokines and cytokines in the brain. L. D. SANFORD*; M. MACHIDA; M. A. AMBROZEWICZ; T. ZENG; R. P. CIAVARRA. *Eastern Virginia Med. Sch., Eastern Virginia Med. Sch.*
- 2:00 QQ2 **481.06** Sexual dimorphism in the effects of psychosocial and physical stressors on pro-inflammatory cytokines. S. HUDSON*; S. JACOBSON-PICK; M. AUDET; H. ANISMAN. *Carleton Univ. (anisman Lab), Carleton Univ.*
- 3:00 QQ3 **481.07** ● Interactive effects of a social stressor and interleukin-6 injection on anxiety-related behaviors and prefrontal expression of pro-inflammatory factors in male cd-1 mice. F. AL-YAWER*; H. ANISMAN. *Carleton Univ.*
- 4:00 QQ4 **481.08** Brain region-specific inflammation alters stress coping behavior. A. R. GERBER*; A. V. ROLAND; L. M. RANDALL; C. A. HUNTER; T. L. BALE. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 1:00 QQ5 **481.09** Effects of restraint on NK cell cytotoxicity, β -endorphin and cortisol in pigs of different stress susceptibility. A. H. SWIERGIEL*; A. BORMAN; W. STOJEK; W. GLAC; I. KOMAROWSKA; Z. CIEPIELEWSKI; D. MYSLINSKA; E. LESZKOWICZ; M. KAMYCZEK; J. TOKARSKI. *Dept. Animal & Human Physiology, Univ. of Gdansk, Inst. Genet. & Animal Breeding, Polish Acad. Sci., Natl. Res. Inst. Animal Production.*
- 2:00 QQ6 **481.10** Impact of chronic citalopram treatment on pro-inflammatory cytokine variations elicited by social defeat. M. AUDET*; S. JACOBSON-PICK; R. MCQUAID; H. ANISMAN. *Carleton Univ.*
- 3:00 QQ7 **481.11** Timecourse of *Toxoplasma gondii* cyst distribution and host neuroimmune response in behaviorally-relevant neural circuits in male Long-Evans rats. A. K. EVANS*; P. S. STRASSMANN; P. K. HOUSE; R. M. SAPOLSKY. *Stanford.*
- 4:00 QQ8 **481.12** Effects of *Toxoplasma gondii* infection on aversive behaviors of female rats. D. GOLCU*; R. GEBRE; R. SAPOLSKY. *Stanford Univ., Stanford Univ.*
- 1:00 QQ9 **481.13** ▲ Effects of *Toxoplasma gondii* infection and cat odor on behavior, c-Fos expression, and activation of nitric oxide synthase-containing neurons within a predator fear circuit in male Long-Evans rats. P. S. STRASSMANN*; A. K. EVANS; R. M. SAPOLSKY. *Stanford Univ.*
- 2:00 QQ10 **481.14** Infiltration of bone marrow derived macrophages into the brain parenchyma following repeated social defeat requires fractalkine receptor expression on macrophages. J. P. GODBOUT*; E. WOHLEB; N. POWELL; J. SHERIDAN. *The Ohio State Univ., The Ohio State Univ.*

POSTER

481. Stress and Neuroimmunology

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 PP17 **481.01** genetic obesity correlates with disruption of insulin signaling proteins accumulation into lipid rafts in brain. A. CAMACHO*; I. DELINT; A. VIDAL-PUIG. *Univ. Autónoma De Nuevo León, Fac. of Med., Univ. Autónoma De Nuevo León, Univ. of Cambridge.*
- 2:00 PP18 **481.02** Absence of ST2 receptor increases the susceptibility to stress and confers altered response to psychotropic drugs. S. F. LISBOA*; K. MONTEZUMA; C. BIOJONE; F. Q. CUNHA; F. S. GUIMARÃES; F. Y. LIEW; W. A. VERRI; S. R. L. JOCA. *Univ. of São Paulo - FMRP, Fac. of Pharm. of Ribeirão Preto - Univ. of São Paulo, Univ. of Glasgow, State Univ. of Londrina.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 QQ11 **481.15** Anxiety-like behavior induced by repeated social defeat is associated with interleukin-1 dependent infiltration of bone marrow-derived macrophages into the brain parenchyma. E. S. WOHLER*; N. D. POWELL; J. P. GODBOUT; J. F. SHERIDAN. *The Ohio State Univ.*
- 4:00 QQ12 **481.16** Repeated social defeat-induced mobilization of primed myeloid-derived cells was mediated by chemokine receptor-2 (CCR2) and abrogated by β -adrenergic receptor blockade. N. D. POWELL; E. S. WOHLER; B. F. READER; A. J. TARR; M. T. BAILEY; S. COLE; J. P. GODBOUT; J. F. SHERIDAN*. *The Ohio State Univ. Col. of Dent., Univ. of California Los Angeles, The Ohio State Univ.*

POSTER

482. Sexual Behavior: Steroid Control I

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 QQ13 **482.01** • Role of steroids in the regulation of growth factors in the medial preoptic area. J. M. SWANN*; C. MARTIN-FAIREY; A. NUNEZ. *Lehigh Univ., Michigan State Univ.*
- 2:00 QQ14 **482.02** Ovarian steroids modulate dopamine receptor protein levels in the medial preoptic area of female rats. M. GRAHAM*; A. KHODAMI-POUR; J. G. PFAUS. *Concordia Univ.*
- 3:00 QQ15 **482.03** Blocking aromatization facilitates sexual behavior in ovariectomized rats treated with estradiol and testosterone. S. ROSENBAUM*; S. L. JONES; J. GARDNER GREGORY; J. G. PFAUS. *Concordia Univ.*
- 4:00 QQ16 **482.04** Histone modifications underlying estrogen-induced gene transcription in ventromedial hypothalamus. K. GAGNIDZE*; S. M. SCHAAFSMA; L. C. FAUSTINO; D. W. PFAFF. *Rockefeller Univ., Rockefeller Univ.*
- 1:00 QQ17 **482.05** Caveolin-1 mediated trafficking of ER α is required for female sexual receptivity. A. CHRISTENSEN*; P. MICEVYCH. *UCLA.*
- 2:00 QQ18 **482.06** Estradiol dose dependently downregulates estrogen receptor- α in the mediobasal hypothalamus, but not in the amygdala. M. MAHAVONGTRAKUL*; M. MACIEL; M. P. GARCIA; K. SINCHAK. *California State University, Long Beach.*
- 3:00 QQ19 **482.07** ▲ In estradiol primed rats subsequent free estradiol rapidly facilitates lordosis through G-protein coupled receptor 30 (GPR30). N. P. LONG*; S. CHHORVANN; K. SINCHAK. *CSULB.*
- 4:00 QQ20 **482.08** GABA-B receptors mediate membrane estradiol activation of β -endorphin neurons in the arcuate nucleus of the hypothalamus. K. SINCHAK*; L. PONCE; L. GOMEZ; L. GOMEZ; A. CHRISTENSEN; M. BERGER; P. MICEVYCH. *California State University, Long Beach, David Geffen Schl Med. at UCLA.*
- 1:00 RR1 **482.09** ▲ Subpopulations of μ -opioid receptor neurons in the medial preoptic nucleus express estrogen receptor- α and opioid receptor-like receptor-1. G. POLOVIN*; R. BOWLBY; M. P. GARCIA; V. THACH; P. TEA; H. SENG; K. SINCHAK. *CSULB.*

- 2:00 RR2 **482.10** Steroid receptor coactivator-1 (SRC-1) and SRC-2 from mouse hypothalamus interact differentially with the mouse progesterone receptor isoforms. K. L. DIEDERICH; W. Y. WAN; D. IM; D. VARDAR-ULU; J. DONG; P. THOMAS; M. J. TETEL*. *Wellesley Col., Wellesley Col., Univ. of Texas - Austin.*
- 3:00 RR3 **482.11** Brain-derived estrogens acutely affect male sexual motivation but not performance in Japanese quail. A. L. SEREDYNSKI; J. BALTHAZART; G. F. BALL; C. A. CORNIL*. *Univ. Liege, Johns Hopkins Univ.*

POSTER

483. Parental Behavior

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 RR4 **483.01** Maternal care is mediated by V1b receptors within the medial preoptic area in lactating rats. M. LUKAS*; V. KACZMAREK; I. D. NEUMANN; O. J. BOSCH. *Univ. of Regensburg.*
- 2:00 RR5 **483.02** The medial amygdala connections and the possible role of the sexually dimorphic vasopressinergic innervation of the ventral striatopallidum in maternal aggression in mice. E. LANUZA*; M. OTERO-GARCÍA; C. PARDO-BELLVER; A. MARTÍN-SÁNCHEZ; B. CADIZ-MORETTI; L. FORTES-MARCO; A. HERNÁNDEZ-MARTÍNEZ; H. SALAIS-LÓPEZ; P. MARCO-MANCLÚS; F. MARTÍNEZ-GARCÍA. *Dept. of Cell Biology, Univ. Valencia, Dept. of Functional Biology, Univ. of Valencia.*
- 3:00 RR6 **483.03** Characterizing maternal and paternal contributions to parental care in mice with deficits in oxytocin signaling. S. WILLIAMS*; S. YOUNG. *NIMH.*
- 4:00 RR7 **483.04** Melanin-concentrating hormone microinjections into the medial preoptic area disrupt maternal behavior during early, but not late, postpartum. L. BENEDETTO*; M. PEREIRA; P. LAGOS; P. TORTEROLO; A. FERREIRA. *Dept. of Physiology, Sch. of Medicine, Univ. de la República, Ctr. for Mol. and Behavioral Neuroscience, Rutgers Univ., Dept. of Physiol. and Nutrition, Sch. of Science, Univ. de la República.*
- 1:00 RR8 **483.05** Cannabinoids disrupt maternal behavior during lactation. A. GIUSTI-PAIVA*; F. C. VILELA. *Univ. Federal De Alfenas, Univ. Federal de Alfenas.*
- 2:00 RR9 **483.06** CB1 receptor mediates the effects of glucocorticoids on behavioral responses during lactation. F. C. VILELA*; S. G. RUGINSK; A. GIUSTI-PAIVA. *Univ. Federal De Alfenas, Univ. de São Paulo, Univ. Federal de Alfenas.*
- 3:00 RR10 **483.07** Administration of pertussis toxin into the VTA alters maternal responsiveness in primigravid rats. P. E. MANN*; J. J. BYRNES; E. M. BYRNES. *Tufts Univ. Cummings Sch. of Vet. Med.*
- 4:00 RR11 **483.08** BSTv/mPOA norepinephrine transporter expression and emotional reactivity in postpartum dams. K. HARDING*; C. M. RAGAN; J. S. LONSTEIN. *Michigan State Univ., Michigan State Univ., Michigan State Univ.*
- 1:00 RR12 **483.09** Early maternal care and emotional responses are associated with later adult maternal behavior and tryptophan hydroxylase 2 expression in the dorsal raphe in female rats. C. M. RAGAN*; K. M. HARDING; J. S. LONSTEIN. *Michigan State Univ., Michigan State Univ.*

- 2:00 RR13 **483.10** • Vesicular GABA transporter and glutamic acid decarboxylase expression in the neural anxiety network of postpartum and virgin female rats. E. I. AHMED*; J. S. LONSTEIN. *Michigan State Univ.*
- 3:00 RR14 **483.11** Effects of reproductive experience on cell proliferation and survival in the midbrain of adult female rats. M. A. HOLSCHBACH*; J. S. LONSTEIN. *Michigan State Univ.*
- 4:00 RR15 **483.12** Effects of natural variation in rat maternal care on anxiety behavior, social behavior, and DNA methylation. E. STARR-PHILLIPS*; D. D. FRANCIS; A. K. BEERY. *Smith Col., UC Berkeley, Smith Col.*
- 1:00 RR16 **483.13** Modulation of novelty effects on adult offspring HPA function by maternal circulating glucocorticoids. S. M. DINCES*; R. D. ROMEO; B. S. MCEWEN; A. C. TANG. *Univ. of New Mexico, Barnard Col., Rockefeller Univ., Univ. of New Mexico.*
- 2:00 RR17 **483.14** Sensitive periods for the impact of maternal care on offspring behavior and region-specific gene expression. C. L. JENSEN*; Y. D. NEUGUT; F. A. CHAMPAGNE. *Columbia Univ., Columbia Univ.*
- 3:00 RR18 **483.15** • Altered expression of GABAA receptor sub-types in the postpartum lateral septum in mice. B. E. EISINGER; T. M. DRIESSEN; M. C. SAUL; C. ZHAO; S. C. GAMMIE*. *Univ. Wisconsin.*
- 4:00 RR19 **483.16** Behavioral analysis of the Wistar-Kyoto rat strain to model core symptoms of postpartum depression. M. PEREIRA*; A. M. FARRAR; J. I. MORRELL. *Rutgers, The State Univ. of New Jersey.*
- 1:00 RR20 **483.17** Impaired maternal behavior in SF-1 heterozygous female mice. T. SPANIC; S. A. TOBET; G. MAJDIC*. *Univ. of Ljubljana, Colorado state Univ.*
- 2:00 SS1 **483.18** ▲ Influences of an early adverse social environment on plasma hormones and monoaminergic hippocampal activity in neonatal rats. P. ROSSI MENEGOTTO*; T. P. HENRIQUES; L. A. DIEHL; M. A. SOUZA; C. N. CORRÊA; M. B. ALVES; C. P. VEIGA; C. DALMAZ; M. NAFFAH MAZZACORATTI; R. M. M. DE ALMEIDA; A. B. LUCION. *Federal Univ. of Rio Grande Do Sul, Federal Univ. of Rio Grande Do Sul, Federal Univ. of São Paulo, Federal Univ. of Rio Grande Do Sul.*
- 3:00 SS2 **483.19** Like father, like son: Transmission of paternal behavior across generations. E. A. BECKER*; N. LIBO; L. GOETSCH; M. KUMEROW; C. A. MARLER. *St. Joseph's Univ., Chicago Col. of Osteo. Med., Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*
- 4:00 SS3 **483.20** Fatherhood affects behavior and brain plasticity in male prairie voles (*Microtus ochrogaster*). C. LIEBERWIRTH*; Y. LIU; Y. WANG; S. HUTH; R. DESAUGUSTE; Z. WANG. *Florida State Univ.*
- 1:00 SS4 **483.21** The effects of oxytocin on heart rate and the autonomic nervous system during pup exposure in the male prairie vole. W. KENKEL; G. LEWIS; J. YEE; S. PORGES; C. CARTER*. *Univ. Illinois at Chicago, Res. Triangle Inst.*
- 2:00 SS5 **483.22** How fathers' brains react to a potential mate, competitor or predator: Immediate early gene expression in male sticklebacks (*Gasterosteus aculeatus*). M. H. KENT*; A. M. BELL. *Univ. Illinois, Univ. Illinois, Univ. Illinois.*
- 3:00 SS6 **483.23** Neuropeptide and hormone receptor changes in mongolian gerbils following parental experience in Mongolian gerbils. E. CHOLERIS*; A. PHAN; K. J. M. LAING; L. M. MISON; V. VIVEKANANTHAN; R. ABADILLA; J. A. MONG; M. M. CLARK. *Univ. of Guelph, Univ. of Guelph, Univ. of Guelph, Univ. of Guelph, McMaster Univ., Univ. of Maryland.*
- 4:00 SS7 **483.24** Effects of early parenting experience on cortical connections in prairie voles (*Microtus ochrogaster*). R. GRUNEWALD; A. M. H. SEELKE; A. PERKEYBILE; D. F. COOKE*; K. L. BALES; L. A. KRUBITZER. *UC Davis, UC Davis.*
- POSTER**
- 484. Autonomic Control of Urinary Functions**
- Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology and Homeostatic Challenge**
- Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J
- 1:00 SS8 **484.01** Neural pathways involved in sacral neuromodulation of reflex bladder activity in cats. J. R. ROPPOLO*; B. SHEN; F. ZHANG; S. ZHAO; J. WANG; D. E. NELSON; W. C. DE GROAT; C. TAI. *Univ. Pittsburgh Sch. Med., Medtronic Neuromodulation.*
- 2:00 SS9 **484.02** An *in vivo* rat model for studies of the urinary bladder function. P. ARONSSON*; M. ANDERSSON; M. JOHNSON; G. TOBIN. *Univ. of Gothenburg.*
- 3:00 SS10 **484.03** Dual sources and roles of nitric oxide in the normal and inflamed rat urinary bladder. M. C. ANDERSSON*; P. ARONSSON; M. JOHNSON; J. CABALKOVA; N. MUHAMMAD; G. TOBIN. *Univ. of Gothenburg, Charles Univ.*
- 4:00 SS11 **484.04** External urethral sphincter activity recorded during voiding in unanesthetized intact and spinal-transected rats. B. K. LAPALLO*; J. S. CARP; X. Y. CHEN; J. R. WOLPAW. *Biggs Laboratory, Wadsworth Ctr., Wadsworth Center, NYS Dept of Hlth.*
- 1:00 SS12 **484.05** Epidural stimulation induces voiding and external urethral sphincter (EUS) bursting activity in intact rats. H. H. CHANG*; R. M. ICHIYAMA; L. HAVTON. *UC Irvine, Univ. of Leeds, UC Irvine, UC Irvine, Reeve-Irvine Res. Ctr.*
- 2:00 SS13 **484.06** • Transforming Growth Factor Beta 1, 2, and 3 (TGF- β 1, TGF- β 2, and TGF- β 3) and receptors in rat urinary bladder and plasticity with cyclophosphamide (CYP)-induced cystitis. E. GONZALEZ*; B. M. GIRARD; S. MALLEY; M. A. VIZZARD. *Univ. of Vermont, Univ. of Vermont.*
- 3:00 SS14 **484.07** • Plasticity in transient receptor potential (trp) channel expression in urinary bladder in rodents with urinary bladder dysfunction or during postnatal development. B. M. GIRARD*; S. MALLEY; L. MERRILL; M. VIZZARD. *Univ. Vermont col Med., Univ. of Vermont.*
- 4:00 SS15 **484.08** Involvement of group II/III metabotropic glutamate and opioid receptors in tibial nerve inhibition of nociceptive bladder activity in cats. Y. MATSUTA*; A. D. MALLY; F. ZHANG; B. SHEN; J. WANG; J. R. ROPPOLO; W. C. DE GROAT; C. TAI. *Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 1:00 SS16 **484.09** Deep brain stimulation at midbrain sites in rats suppresses micturition by disrupting co-ordinated activity of detrusor and external urethral sphincter muscles. T. A. LOVICK*; E. STONE; J. H. COOTE. *Univ. of Birmingham.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 SS17 **484.10** Cavernous nerve manipulation decreases transcript levels for the neuronal nicotinic acetylcholine receptor (nAChR) subunit $\alpha 3$ and postsynaptic density (PSD)-93 in male mouse major pelvic ganglia (MPG). B. M. GIRARD; J. D. TOMPKINS; M. A. VIZZARD; R. L. PARSONS*. *Univ. of Vermont, Univ. of Vermont, Univ. Vermont Col. Med.*
- 3:00 SS18 **484.11** Urinary function in a rat menopause model: Gonadal hormone deficiency versus sphincter denervation. J. L. PALACIOS; M. JUÁREZ; Y. CRUZ*. *Univ. Autónoma de Tlaxcala, Univ. Autónoma de Tlaxcala, Univ. Autónoma Tlaxcala.*
- 4:00 SS19 **484.12** • Bilateral pelvic nerve crush as a model for underactive bladder in the rat: Preliminary results. C. J. CHERMANSKY; Q. WU; J. C. WINTERS; M. O. FRASER*. *Louisiana State Univ. Hlth. Sci. Ctr., Duke Univ. Med. Ctr., Durham Veterans Affairs Med. Ctr.*
- 1:00 SS20 **484.13** Role of vanilloid transient receptor potential cation channel (TRPV) 4 in bladder dysfunction in response to repeated variate stress (RVS) in male rats. L. MERRILL*; B. GIRARD; A. PETERSON; M. VIZZARD. *Univ. of Vermont, Univ. of Vermont, Univ. of Vermont.*
- 2:00 TT1 **484.14** • Beta3-adrenergic agonists quiet detrusor hyperreflexia associated with suprasacral spinal cord injury. M. O. FRASER; P. C. DOLBER*. *Veterans Affairs Med. Ctr., Duke Univ. Med. Ctr.*
- 3:00 TT2 **484.15** Suppression of distention-elicited urothelial ATP release by NO-cGMP pathway. K. MATSUMOTO-MIYAI*; M. YOSHIZUMI; M. KAWATANI. *Akita Univ. Grad Sch. Med.*
- 4:00 TT3 **484.16** • Convergence and cross-talk amongst urogenital neural circuitries. C. HUBSCHER*; D. GUPTA; T. BRINK. *Univ. Louisville Sch. Med., Medtronic, Inc.*
- 1:00 TT4 **484.17** • Severe social stress in mice reduces voiding frequency, increases bladder capacity and upregulates urothelial nerve growth factor (NGF). M. A. VIZZARD*; A. PETERSON; S. P. WRIGHT; M. T. NELSON; G. MINGIN. *Univ. Vermont Col. Med., Univ. Vermont Col. Med., Univ. Vermont Col. Med.*
- 2:00 TT5 **484.18** Inhibition of bladder overactivity by combination of foot stimulation and tramadol treatment in cats. C. TAI*; A. D. MALLY; F. ZHANG; Y. MATSUTA; B. SHEN; J. WANG; J. R. ROPPOLO; W. C. DE GROAT. *Univ. Pittsburgh, Univ. Pittsburgh.*
- 3:00 TT6 **484.19** Mechanisms underlying non-monotonic block of unmyelinated axons by high-frequency biphasic stimulation. J. WANG*; S. ZHAO; J. R. ROPPOLO; W. C. DE GROAT; C. TAI. *Univ. of Pittsburgh.*
- 4:00 TT7 **484.20** Laser Capture Microdissection (LCM) for genotyping specific populations of single cells in rat spinal cord. L. MARSON; L. YE*; K. YOSKIOKA; E. C. BURGARD; K. THOR; M. T. FALDUTO; S. R. MAGNUSON. *Urogenix, Inc., GenUs BioSystems.*

POSTER

- 485. Stress-Modulated Pathways: Hypothalamus, Amygdala and Bed Nucleus II**
- Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology and Homeostatic Challenge**
- Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J
- 1:00 TT8 **485.01** Glucocorticoid feedback uncovers retrograde opioid signaling at hypothalamic GABA synapses. J. I. WAMSTEEKER*; J. S. BAINS. *Hotchkiss Brain Inst.*
- 2:00 TT9 **485.02** Noradrenaline is a stress-associated metaplastic signal at GABA synapses. W. INOUE*; D. V. BAIMOUKHAMETOVA; Q. J. PITTMAN; J. S. BAINS. *Hotchkiss Brain Institute, Dept. of Physiol. & Pharmacology, Univ. O.*
- 3:00 TT10 **485.03** Rescue of homotypic stress-induced CB1R downregulation by novel stress. L. SENST; J. S. BAINS*. *Univ. of Calgary.*
- 4:00 TT11 **485.04** Catecholamine release unmasks GABA metaplasticity in the hypothalamic paraventricular nucleus. T. FÜZESI*; K. KOBLINGER; W. INOUE; P. J. WHELAN; J. S. BAINS. *Univ. of Calgary.*
- 1:00 TT12 **485.05** Serotonin transporter deficient rats exhibit enhanced acquisition and disrupted extinction of conditioned fear. S. D. FITZ*; A. I. MOLOSH; W. A. TRUITT; P. L. JOHNSON; A. SHEKHAR. *Indiana Univ. Schl Med., Indiana Univ. Schl Med., Indiana Univ. Schl Med.*
- 2:00 TT13 **485.06** • Exposure to a panicogenic hypercapnia stimulus enhances acquisition and delays extinction of conditioned fear and is blocked by pretreatment with an orexin 1 receptor antagonist. P. L. JOHNSON*; S. D. FITZ; A. I. MOLOSH; A. SHEKHAR. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*
- 3:00 TT14 **485.07** • Post-trauma disruption of nNOS-PSD95 protein-protein interaction is an effective means to ameliorate conditioned fear. A. SHEKHAR*; S. D. FITZ; P. L. JOHNSON; A. G. HOHMANN; T. WIDLANSKI; Y. Y. LAI. *Indiana Univ., Indiana Univ.*
- 4:00 TT15 **485.08** Social familiarity reduces anxiety-like responses through a medial ventral prefrontal cortex dependent pathway in rats. W. A. TRUITT*; E. A. LUNGWITZ; A. D. DIETRICH; P. E. MINICK; A. SHEKHAR. *Indiana Univ. Sch. Med., Indiana Univ. Sch. Med., Indiana Univ. Sch. Med.*
- 1:00 TT16 **485.09** Stress-induced alteration in anxiety like behavior and A-type channel subunit (Kv4.2) transcript in the bed nucleus of the stria terminalis (BNST_{ALG}). R. HAZRA*; J. GUO; J. DABROWSKA; C. LI; D. G. RAINNIE. *Emory Univ. Sch. of Med.*
- 2:00 TT17 **485.10** • Epac mediates dopamine D1 receptors-dependent synaptic plasticity in the basolateral amygdala. C. LI*; R. HAZRA; D. RAINNIE. *Behavioral Neurosci. & Psychiatric Disorders, Yerkes Natl. Primate Researc.*
- 3:00 TT18 **485.11** Effects of 5-HT1A and 5-HT2A receptors on the development of stress-induced changes in behavior. L. BADER*; M. COOPER. *Univ. of Tennessee.*
- 4:00 TT19 **485.12** Long-term maintenance of dominance status is associated with resistance to social defeat in Syrian Hamsters, Part II - Defeat induced neural activation. C. E. TUCKER*; K. E. MORRISON; L. R. BADER; S. E. GROSS; M. A. COOPER. *Univ. of Tennessee.*

- 1:00 TT20 **485.13** Long-term maintenance of dominance status is associated with resistance to social defeat in Syrian hamsters, Part I - behavioral responses. K. E. MORRISON*; L. R. BADER; C. E. TUCKER; D. M. GERHARD; M. A. COOPER. *Univ. Tennessee*.
- 2:00 UU1 **485.14** Enkephalin and Dynorphin expression are associated with resilience and vulnerability to chronic social defeat stress procedure. G. DROLET*; P. BERUBE; S. LAFOREST; S. BHATNAGAR. *Univ. Laval/Ctr Recherche CHUQ, The Children's Hosp. of Philadelphia, Univ. of Pennsylvania*.
- 3:00 UU2 **485.15** Dynorphinergic afferents to the basolateral and central nucleus of the amygdala in rat. P. BERUBE*; S. LAFOREST; G. DROLET. *Univ. Laval/Ctr Recherche CHUQ*.
- 4:00 UU3 **485.16** Susceptibility to PTSD-like behavior is mediated by CRF receptor type 2 levels in the bed nucleus of the stria terminalis. M. LEBOW*; A. NEUFELD-COHEN; Y. KUPERMAN; M. TSOORY; S. GIL; A. CHEN. *Dept. of Neurobiology, Weizmann Inst. of Sci., Dept. of Vet. Resources, Weizmann Inst. of Sci.*
- 1:00 UU4 **485.17** Taurine counteracts the suppressive effect of lipopolysaccharide on neurogenesis in the hippocampus. T. MATSUWAKI*; G. WU; Y. TANAKA; K. YAMANOUCI; M. NISHIHARA. *Linköping Univ., The Univ. of Tokyo, Shenyang Agr. Univ.*
- 2:00 UU5 **485.18** Input-specific regulation of excitatory afferents to the BNST by alpha2A adrenergic receptors. S. FLAVIN*; R. T. MATTHEWS; E. J. EPSTEIN; D. G. WINDER. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*
- 3:00 UU6 **485.19** ● Glucocorticoids differentially regulate cyclooxygenase-2-related signaling pathway in the hypothalamus under various stress conditions. Y. MA*; T. MATSUWAKI; K. YAMANOUCI; M. NISHIHARA. *The Univ. of Tokyo*.
- 4:00 UU7 **485.20** Distinct multisynaptic circuits within the medial and central extended amygdala of the rat. M. S. BIENKOWSKI*; E. S. WENDEL; L. RINAMAN. *Univ. of Pittsburgh*.
- 1:00 UU8 **485.21** ● The use of microinfusion pump to perform intrahypothalamic injections in conscious rats. D. V. ZARETSKY*; M. V. ZARETSKAIA; P. J. DURANT; D. E. RUSYNIAK. *Indiana Univ. Sch. of Med.*
- 3:00 UU11 **486.03** ● Participation of muscarinic M3 receptors in the regulation of sleep at ventrolateral preoptic area and dorsolateral mesopontine tegmentum. A. JIMENEZ-ANGUIANO*; J. AYALA-GARCIA; P. POSADAS-RODRIGUEZ; N. GARCIA-CARDENAS; J. VELAZQUEZ-MOCTEZUMA. *Univ. Autónoma Metropolitana-Iztapalapa, Univ. Autónoma Metropolitana-Iztapalapa, Univ. Autónoma Metropolitana-Iztapalapa*.
- 4:00 UU12 **486.04** Neuronal rhythm modulated by the light-dark cycle in rat hippocampal slices. H. NAKATSUKA; K. NATSUME*. *Kyushu Inst. Technol.*
- 1:00 UU13 **486.05** ● Further evidence for the sleep-promoting effects of 5-HT_{2A} receptor antagonists and demonstration of synergistic effects with the hypnotic, zolpidem. G. GRIEBEL; S. BEESKE; A. JACQUET; M. DECOBERT; D. FRANCON; O. E. BERGIS*. *Sanofi-Aventis Res. & Develop.*
- 2:00 UU14 **486.06** Probing the contribution of monoaminergic networks in sleep-wake regulation. A. VENNER*; C. SAPER; P. FULLER. *Beth Israel Deaconess Med. Ctr.*
- 3:00 UU15 **486.07** Cholinergic mediation of enhanced REM sleep in forebrain-specific CRH-overexpressing mice. M. KIMURA*; M. L. CURZI; C. FLACHSKAMM; F. HOLLSBOER; J. M. DEUSSING. *Max Planck Inst. of Psychiatry*.
- 4:00 UU16 **486.08** Cortical control of the thalamus during the slow oscillation in anesthetized mice. M. SHEROZIYA*; I. TIMOFEEV. *Laval Univ.*
- 1:00 UU17 **486.09** ▲ The development of Orexin-A (hypocretin-1) expression in chick embryos. K. E. GODDEN; J. P. LANDRY; M. POMPEIANO*. *McGill Univ.*
- 2:00 UU18 **486.10** Analysis of the interactions between GABA_A receptor and L-triiodothyronine using electrophysiology and molecular dynamic simulations. T. R. S. WESTERGARD; J. V. MARTIN*; G. BRANNIGAN. *Rutgers Univ.*
- 3:00 UU19 **486.11** Glial adenosine kinase controls the homeostatic, adenosine-dependent, slow wave activity decay of slow wave sleep. T. E. BJORNES*; R. W. GREENE. *Univ. of Texas, Southwestern Med. Ctr., Univ. of Texas Southwestern, North Texas Veterans Affairs Med. Ctr.*
- 4:00 UU20 **486.12** Cortical calcium activity across wake and sleep: Fiberoptic measurements in anesthetized and freely behaving animals. J. SEIBT*; D. DE LIMOGES; M. E. LARKUM. *NWFZ Charité-Universitätsmedizin, Institute of Physiology, Univ. of Bern*.
- 1:00 VV1 **486.13** ● Tissue specific BMAL1 expression alters sleep in the mouse. J. EHLEN*; F. JEFFERSON; A. J. BRAGER; K. N. PAUL. *Morehouse Sch. of Med.*
- 2:00 VV2 **486.14** ● State-dependent changes in adenosine in the rodent hippocampus rely on gliotransmission. T. BLUTSTEIN*; L. I. SCHMITT; P. G. HAYDON. *Tufts Univ. Sch. of Med.*
- 3:00 VV3 **486.15** ▲ EEG delta power during isoflurane anesthesia is decreased in C57BL/6J mouse by systemic and intrapontine administration of acetylcholinesterase inhibitors. A. SHATSMAN; C. C. NORTON; G. VANINI; C. J. WATSON; R. LYDIC; H. A. BAGHDOYAN*. *Univ. of Michigan*.

POSTER

486. Sleep: Molecular and Cellular Mechanisms

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 UU9 **486.01** Sustained activity of sleep-active cerebral cortex neurons in chronic sleep restriction. Y. KIM*; M. R. ZIELINSKI; S. KARPOVA; S. WINSTON; R. W. MCCARLEY; R. E. STRECKER; D. GERASHCHENKO. *Harvard Med. Sch., VA Boston Healthcare Syst., Harvard Med. Sch., Harvard Med. Sch.*
- 2:00 UU10 **486.02** Intravenous administration of eszopiclone decreases acetylcholine release in the basal forebrain of obese/metabolic syndrome rats. V. S. HAMBRECHT-WIEDBUSCH*; A. DAVIDOV; L. G. KOCH; S. L. BRITTON; H. A. BAGHDOYAN; R. LYDIC. *Univ. of Michigan*.

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 VV4 **486.16** Norepinephrine blocks isoflurane-induced activation of putative sleep-promoting VLPO neurons leading to *in vivo* anesthetic resistance. H. S. MCCARREN*; M. R. CHALIFOUX; J. T. MOORE; M. A. FLEISHER; S. G. BECK; M. B. KELZ. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 1:00 VV5 **486.17** Evidence that the lateral hypothalamic area controls paradoxical (REM) sleep by means of descending projections to brainstem GABAergic neurons. O. CLÉMENT; E. SAPIN; P. LIBOUREL; S. ARTHAUD; P. FORT; P. LUPPI*. *CNRS UMR 5292/INSERM U1028, INSERM U1042.*
- 2:00 VV6 **486.18** Gene expression in oligodendrocytes is affected by sleep and wake. M. BELLES*; M. PFISTER-GENSKOW; S. MARET; S. KELES; G. TONONI; C. CIRELLI. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*
- 3:00 VV7 **486.19** Almorexant promotes sleep and exacerbates cataplexy in a murine model of narcolepsy. S. W. BLACK*; S. R. MORAIRTY; S. P. FISHER; T. CHEN; D. R. WARRIER; T. S. KILDUFF. *SRI Intl.*
- 4:00 VV8 **486.20** GABAergic neurons of the medullary parafacial zone are slow-wave-sleep promoting. C. ANACLET*; C. B. SAPER; P. M. FULLER. *BIDMC Harvard.*
- 1:00 VV9 **486.21** Induction of REM sleep in rat with non-selective GABA_A receptor antagonist and benzodiazepine inverse agonist: Magnitude of effect at pontine reticular sites are not positively correlated. T. Q. NGUYEN; C. LIANG; G. A. MARKS*. *VA North Texas Hlth. Care Syst., Univ. of Texas Southwestern Med. Ctr.*
- 2:00 VV10 **486.22** The role of pumilio on the sleep-like state of *Drosophila melanogaster*. N. Y. RODRIGUEZ-GOMEZ*; J. ORTEGA; H. RODRIGUEZ; G. DIAZ; F. RIVERA; M. REYES; E. RIVERA; J. L. AGOSTO-RIVERA. *UNIVERSITY OF PUERTO RICO.*
- 3:00 VV11 **486.23** Projections from lateral pontine tegmentum (LPT) to sublaterodorsal nucleus (SLD) utilize glycine/GABA and glutamate neurotransmitters. C. LIANG*; G. A. MARKS. *VA North Texas Hlth. Care Syst., Univ. of Texas Southwestern Med. Ctr., VA North Texas Hlth. Care Syst.*
- 4:00 VV12 **486.24** Cholinergic basal forebrain neurons contribute to the biochemical and electrophysiological changes in the cortex during sleep deprivation. A. V. KALINCHUK*; S. KIM; R. W. MCCARLEY; R. BASHEER. *Harvard Med. School-VA Boston Healthcare Syst., Brown Univ.*
- 1:00 VV13 **486.25** Effect of nicotine withdrawal on sleep quantity and quality in rats. H. L. MATHEWS*; D. H. MALIN; P. FEILER; L. THOMPSON; J. BAUTISTA; A. NEGRETE; P. GOYARZU; C. P. WARD. *Univ. of Houston - Clear Lake.*
- 2:00 VV14 **486.26** Using RNA-Seq to evaluate the aged female Sprague-Dawley rat cortex transcriptome after repeated bouts of sleep deprivation induced by the gentle-handling method. A. S. ELLIOTT*; R. C. TURNER; J. P. O'CALLAGHAN; C. L. ROSEN; J. D. HUBER; D. B. MILLER. *West Virginia Univ. Sch. of Med., CDC-NIOSH, West Virginia Sch. of Med., West Virginia Univ. Sch. of Pharm.*
- 3:00 VV15 **486.27** Sleep gene polymorphisms and psychological health: A translational approach. T. VIENA; A. I. FINS; A. TARTAR; J. L. TARTAR*. *Nova Southeastern Univ., Nova Southeastern Univ.*
- 4:00 VV16 **486.28** Orexin-A enhances a slow afterhyperpolarization (sAHP) and slows steady firing in serotonergic dorsal raphe (DR) neurons. M. ISHIBASHI*; I. GUMENCHUK; C. S. LEONARD. *New York Med. Coll.*
- 1:00 VV17 **486.29** • Untangling genetic and molecular networks underlying sleep and depression/anxiety-related behaviors in mice. K. FITZPATRICK; P. JIANG; L. ZHOU; J. OWENS; J. MILLSTEIN; A. KASARSKIS; E. E. SCHADT; J. J. RENGIER; C. J. WINROW; M. H. VITATERNA; F. W. TUREK. *Northwestern Univ, Keck Sch. of Med., USC, Mount Sinai Sch. of Med., Merck Res. Labs.*
- 2:00 VV18 **486.30** • Shared phenotypic and genetic aspects of psychiatric and sleep behaviors. K. MRAZEK*; P. JIANG; L. ZHOU; J. OWENS; J. MILLSTEIN; A. KASARSKIS; E. E. SCHADT; J. J. RENGIER; C. J. WINROW; M. H. VITATERNA; F. W. TUREK. *Northwestern Univ., USC, Mount Sinai Sch. of Med., Merck Res. Labs.*

POSTER

487. Sleep: Systems Disruption

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

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 VV19 **487.01** Effect of experimental sleep fragmentation on the social transmission of food preference in rats. K. HOOD; J. TAYLOR; K. NUNGARAY; E. AGUERO; J. WOODEN; B. MONTEMAYOR; A. VALLEJO; R. L. PUZDROWSKI*; C. P. WARD. *Univ. Houston-Clear Lake, Univ. Houston - Clear Lake, Univ. Houston-Clear Lake.*
- 2:00 VV20 **487.02** Metabolic consequences of disturbed sleep in rodents. P. BARF*; P. MEERLO; A. J. SCHEURINK; M. OPP. *Univ. of Washington, Univ. of Groningen.*
- 3:00 WW1 **487.03** Electrical stimulation of basal forebrain (BF) induces cortical gamma activity and activates wake active BF neurons in freely behaving rats. S. THANKACHAN*; J. T. MCKENNA; R. E. STRECKER; R. W. MCCARLEY. *VA Boston Healthcare Syst. & Harvard Med. Sch.*
- 4:00 WW2 **487.04** In rats exposed to chronic intermittent hypoxia, reduced Fos expression in ventrolateral medullary catecholaminergic A1/C1 neurons contrasts with an upward trend in pontine A7 neurons. L. KUBIN*; K. BENINCASA HERR; G. M. STETTNER. *Univ. of Pennsylvania.*
- 1:00 WW3 **487.05** Muscleblind-like protein 2 knockout mice exhibit increased REM sleep propensity. N. SAKAI*; M. SATO; K. CHARIZANIS; K. LEE; M. S. SWANSON; S. NISHINO. *Stanford Sleep and Circadian Neurobio. Lab., Univ. of Florida, Chang Gung Mem. Hosp.*
- 2:00 WW4 **487.06** Psychomotor vigilance task performance during and following chronic sleep restriction in rats. S. DEURVEILHER*; J. BUSH; B. RUSAK; G. ESKES; K. SEMBA. *Dalhousie Univ.*
- 3:00 WW5 **487.07** • Molecular analysis of a sensory experience-induced sleep in juvenile male songbirds. D. T. WHITAKER*; M. DESHPANDE; E. RATLIFF; F. PIRLEPESOV; T. LINTS. *Texas A&M Univ.*
- 4:00 WW6 **487.08** Sleep-wake activity of UCP-1 KO mice at various ambient temperatures. L. KAPAS*; E. SZENTIRMAI. *Washington State University, Spokane.*

- 1:00 WW7 **487.09** Sleep deprivation through social interaction induces c-Fos activation in the rostral basal forebrain in rats. K. SEMBA*; N. RYAN; J. BURNS; S. DEURVEILHER. *Dalhousie Univ.*
- 2:00 WW8 **487.10** cFos protein activation is increased in serotonergic neurons of the rat dorsal raphe nucleus during apneic respiratory challenge. J. T. MCKENNA*; L. B. SHIFFLETT; S. WINSTON; Y. BOLORTUYA; M. A. FERRARINI; G. D. GOODHUE; M. P. MCGOVERN; B. KOCIS; R. W. MCCARLEY; R. E. STRECKER. *VA Boston Healthcare/Harvard Med. Sch., Stonehill Col., Harvard Med. School/Beth Israel Deaconess Med. Ctr.*
- 3:00 WW9 **487.11** EEG alpha power mediates perseveration of bistable perception after sleep deprivation. G. PIANTONI; N. ROMEIJN; Y. D. VAN DER WERF; E. J. VAN SOMEREN*. *Netherlands Inst. For Neurosci.*
- 4:00 WW10 **487.12** The sedative/hypnotic dexmedetomidine does not cause pCREB activation in NREM sleep-regulating brain regions of Sprague-Dawley rat. E. C. SWOR; S. BOTTA; T. HRECHDAKIAN; S. JIANG; A. ATAL; A. GARRITY; G. VANINI*; H. A. BAGHDOYAN; R. LYDIC. *Univ. of Michigan.*
- 1:00 WW11 **487.13** Chronic and acute REM sleep deprivation differentially affect tyrosine hydroxylase and dopamine R1 expression in the reward circuit of the rat brain. M. R. DUNBAR*; I. AZOGU; P. TREMBLAYE; M. LEBRETON; N. LEMAREC; H. PLAMONDON. *Univ. of Ottawa, Univ. du Quebec a Montrea.*
- 2:00 WW12 **487.14** Food deprivation and new environment-induced sleep-wake activity changes in UCP-1 KO mice. C. AMES; E. SZENTIRMAI*. *Washington State Univ.*
- 3:00 WW13 **487.15** Sleep disturbances are correlated with cognitive and affective deficits in individuals with cerebellar ataxia. A. SONNI*; R. M. C. SPENCER. *Univ. of Massachusetts, Univ. of Massachusetts.*
- 4:00 WW14 **487.16** Sleep history alters responses of mice to muscle sensitization. B. C. SUTTON*; M. R. OPP. *Univ. of Washington, Univ. of Michigan, Univ. of Washington.*
- 1:00 WW15 **487.17** Long term sleep deprivation effects over spatial learning in adult male mice in different exposition times. S. SOTO-RODRIGUEZ; J. H. FERNANDO*; G. CHIPRES-TINAJERO; O. GONZALEZ-PEREZ; A. GALVEZ-CONTRERAS; O. HUET; L. ALVAREZ_PALLAZUELOS; S. LUQUIN; R. RAMOS_ZUÑIGA; J. GARCIA-ESTRADA; R. GONZALEZ-CASTAÑEDA; Y. RUVALCABA-DELGADILLO. *Univ. de Guadalajara, Inst. Mexicano del Seguro Social, Univ. de Guadalajara.*
- 2:00 WW16 **487.18** Hippocampal activity-regulated cytoskeletal protein changes after chronic sleep deprivation and removal from the sleep-deprivation chamber. O. YESSOUFOU; W. LE; K. SUBEDI; L. VALÉRIA SITA; M. KOBAN; G. E. HOFFMAN*. *Morgan State Univ., Univ. of Sao Paulo.*
- 3:00 WW17 **487.19** Acetylcholine and synaptic homeostasis. C. G. FINK*; M. ZOCHOWSKI; V. BOOTH. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*
- 4:00 WW18 **487.20** Daytime hyperarousal in idiopathic insomnia: Preliminary results. T. CEKIC*; I. TURCOTTE; C. H. BASTIEN. *Univ. Laval, Ctr. de recherche Univ. Laval Robert-Giffard.*
- 1:00 WW19 **487.21** Effect of sleep fragmentation on spatial learning and memory in juvenile rats. K. NUNGARAY; E. AGUERO; K. HOOD; J. TAYLOR; J. WOODEN; J. BAUTISTA; N. MCDANIEL; A. VALLEJO; R. KIELTYKA; C. P. WARD*. *Univ. Houston Clear Lake.*
- 2:00 WW20 **487.22** Optogenetically induced sleep spindle rhythms alter sleep architecture in mice. A. P. KIM*; C. LATCHOUMANE; S. LEE; G. KIM; E. CHEONG; G. AUGUSTINE; H. SHIN. *Korea Inst. of Sciece and Technol., Univ. of Sci. and Technol., Korea Inst. of Sciece and Technol., Korea Inst. of Sciece and Technol., Yonsei university.*
- 3:00 XX1 **487.23** Distinct clustering of locations and activity patterns among ventrolateral medullary cells recorded during the atonia of REM sleep elicited by pontine carbachol in urethane-anesthetized rats. G. M. STETTNER*; Y. LEI; K. BENINCASA HERR; L. KUBIN. *Univ. of Pennsylvania.*
- 4:00 XX2 **487.24** ▲ Enhanced passive avoidance retention in PPAR α knock-out mice. D. CHIDA; S. CHIKAHISA; N. SHIMIZU; H. FUJIHARA; T. SHIUCHI; H. SEI*. *Univ. Tokushima Grad. Sch., Univ. Tokushima Fac. Med.*
- 1:00 XX3 **487.25** Brainstem cholinergic and thalamic dysfunction during limbic seizures: Possible mechanism for cortical slow oscillations and impaired consciousness. J. E. MOTELOW*; A. GUMMADEVELLI; Z. ZAYYAD; A. M. MISHRA; R. N. S. SACHDEV; B. G. SANGANAHALLI; M. FURMAN; D. ENGLT; F. HYDER; H. BLUMENFELD. *Yale Sch. of Med., Yale Sch. of Med., Yale Sch. of Med., Univ. of California, San Francisco, Yale Sch. of Med.*

POSTER

488. Human Visual Perception

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 XX4 **488.01** Electrophysiological evidence for the onset of biological motion processing. G. BUZZELL; L. CHUBB; A. SAFFORD; J. THOMPSON; C. G. MCDONALD*. *George Mason Univ., George Mason Univ.*
- 2:00 XX5 **488.02** Modulation of visual event-related potentials with matching and non-matching odours. A. ROBINSON*; J. B. MATTINGLEY; J. REINHARD. *Univ. of Queensland, Univ. of Queensland.*
- 3:00 XX6 **488.03** Abacus in the brain: A longitudinal neuroimaging study of a skilled abacus user with a right hemispheric lesion. S. TANAKA*; K. SEKI; T. HANAKAWA; M. HARADA; N. SADATO; K. WATANABE; M. HONDA. *Nagoya Inst. of Technol., Kobe Univ., Natl. Ctr. for Neurol. and Psychiatry, Eisei Hosp., Natl. Inst. for Physiological Sci., The Univ. of Tokyo.*
- 4:00 XX7 **488.04** Embodied spatial transformations in first and third person perspectives. T. SUDO*; T. HERAI; K. MOGI. *Keio Univ., Tokyo Inst. of technology, Sony Computer Sci. Laboratories, Inc.*
- 1:00 XX8 **488.05** The representation of numerosity in activity patterns of functionally-defined subregions of human parietal cortex. E. EGER*; P. PINEL; S. DEHAENE; A. KLEINSCHMIDT. *INSERM Cognitive Neuroimaging Unit CEAN/NEUROSPIN, Univ. Paris Sud, Collège de France.*
- 2:00 XX9 **488.06** Time window for cognitive visuomotor process, examined by the Ebbinghaus size-illusion effect. H. KATSUMATA*. *Daito-Bunka Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 XX10 **488.07** ● Individual differences in the influence of 3D spatial cueing on pseudoneglect for horizontal line bisection tasks. J. D. FORTE*; C. SPENCE; M. NICHOLLS. *The Univ. of Melbourne, Univ. of Oxford, Flinders Univ.*
- 4:00 XX11 **488.08** Task-dependent activation of thalamo-cortical networks with transcranial alternating current stimulation. C. WEINRICH; C. SCHMIDT-SAMOA; P. DECHENT; M. BÄHR; M. WILKE*. *Univ. Med. Goettingen, Univ. Med. Goettingen.*
- 1:00 XX12 **488.09** Response properties of superior temporal sulcus during biological motion perception: fMRI study. E. YAMAMOTO*; Y. SOMEYA; Y. SUNG; S. OGAWA; S. WATANABE. *The Univ. of Tokyo, Grad. Sch. of Human Relations, Keio Univ., Kansei Fukushi Res. Ctr., Tohoku Fukushi Univ.*
- 2:00 XX13 **488.10** Age-related macular degeneration affects local functional connectivity. R. NENERT*; L. A. ROSS; D. K. DECARLO; C. OWSLEY; M. GRAHAM; K. M. VISSCHER. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham.*
- 3:00 XX14 **488.11** Knowing where without knowing what: Partial awareness in continuous flash suppression. L. MUDRIK; H. GELBARD-SAGIV*; C. KOCH. *Caltech.*
- 4:00 XX15 **488.12** Nonconscious adaptation to spatial and temporal structure of biological motion. N. FAIVRE*; C. KOCH. *Caltech.*
- 1:00 XX16 **488.13** Visual psychophysics: A study on the ability of the visual system to perceive stochastic images. A. DUNNING; A. GHOREYSHI*; T. SANGER. *U. of Southern California, BME Dept.*
- 2:00 XX17 **488.14** Neural representation of the navigability in a scene. S. PARK*; M. DUNNE; M. LEVINE. *Johns Hopkins Univ.*
- 3:00 XX18 **488.15** Descriptiveness and importance of autobiographical information for the construction of autobiographical self. H. F. ARAUJO*; J. KAPLAN; H. DAMASIO; A. DAMASIO. *Brain Creativity Inst. - Univ. of Southern California, Grad. Program in Areas of Basic and Applied Biology, Univ. of Oporto, Portugal, Brain and Creativity Institute, Univ. of Southern California, USA.*
- 4:00 XX19 **488.16** ▲ Sex differences in cognitive and cortical processing of symmetry. A. J. COLLEGIO; D. F. MULARZ; S. M. LAZAR; J. L. GERARD; L. P. ERCOLANO; J. J. PARKER; M. M. SLANE; P. T. ORR; D. W. EVANS*. *Bucknell Univ., Geisinger Hlth. Systems.*
- 1:00 XX20 **488.17** Increase in top-down connectivity during visual imagery as compared to perception. D. DENTICO*; J. CHANG; B. L. P. CHEUNG; J. J. GUOKAS; M. BOLY; G. TONONI; B. D. VAN VEEN. *Univ. of Wisconsin - Madison, Univ. of Wisconsin - Madison, Univ. of Liège.*
- 2:00 YY1 **488.18** Functional manipulability of objects interacts with brain activity: A between-subjects EEG study. Y. Y. CHEN; C. R. MADAN; T. SOMMER*; A. SINGHAL. *Univ. of Alberta, Univ. of Alberta, Univ. Med. Col. Hamburg Eppendorf.*
- 3:00 YY2 **488.19** ● Oculomotor selection mitigates visual crowding. W. HARRISON*; R. W. REMINGTON; J. B. MATTINGLEY. *The Univ. of Queensland, The Univ. of Queensland.*

POSTER

489. Human Long-Term Memory: Hippocampal Complex and Related Structures

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 YY3 **489.01** ● Effective Connectivity between the human posteromedial cortex and mesial temporal lobe structures. J. PARVIZI; J. FREITAS; B. ZONJY; J. MILLER; M. Z. KOUBEISSI*. *Stanford Univ., Univ. Hosp. Case Med. Ctr., Univ. Hosp. Case Med. Ctr., George Washington Univ.*
- 2:00 YY4 **489.02** Material-specific associative memory and perceptual deficits in a patient with a right perirhinal cyst. M. C. INHOFF*; A. C. HEUSSER; A. TAMBINI; C. B. MARTIN; E. B. O'NEIL; S. KÖHLER; B. VAZQUEZ; O. DEVINSKY; L. DAVACHI. *New York Univ., New York Univ., Univ. of Western Ontario, NYU Langone Sch. of Med.*
- 3:00 YY5 **489.03** Common and distinct hippocampal connectivity during retrieval of memory for episodes and spatial locations to landmark cues of a real world environment. J. ROBIN; M. HIRSHHORN; M. MOSCOVITCH*; R. ROSENBAUM; G. WINOCUR; C. GRADY. *Rotman Res. Inst., Univ. of Toronto, York Univ., Trent Univ.*
- 4:00 YY6 **489.04** Combining distal and proximal spatial cues during navigation: An fMRI study. H. R. EVENSMOEN*; J. XU; C. IVERSEN; H. LEHN; A. HÅBERG. *NTNU.*
- 1:00 YY7 **489.05** Inflammatory effects on human rhinal cortex glucose metabolism predict subsequent spatial memory impairment. N. A. HARRISON*; C. DOELLER; E. COOPER; V. VOON; K. MILES; N. BURGESS; H. D. CRITCHLEY. *Univ. of Sussex, Radboud Univ., Cambridge Univ., UCL.*
- 2:00 YY8 **489.06** Distinct neural networks involved in spatial and temporal pattern separation. M. PALEJA*; T. A. GIRARD; K. A. HERDMAN; B. K. CHRISTENSEN. *Ryerson Univ., McMaster Univ.*
- 3:00 YY9 **489.07** Medial temporal lobe contributions to the organization of memory and future thought. E. RACE*; M. M. KEANE; M. VERFAELLIE. *Boston Univ. Sch. of Med. and VA Boston Healthcare Syst., Wellesley Col.*
- 4:00 YY10 **489.08** Cortical systems representing context in episodic memory. M. RITCHEY*; A. P. YONELINAS; C. RANGANATH. *Univ. of California, Davis, Univ. of California, Davis.*
- 1:00 YY11 **489.09** Multi-voxel pattern distinctiveness at encoding predicts accurate recency discrimination. L. J. JENKINS*; C. RANGANATH. *UC Davis.*
- 2:00 YY12 **489.10** Novelty modulates intracranial EEG signals in the prefrontal cortex during memory encoding. M. GRUBER*; L. HSIEH; B. STARESINA; C. ELGER; J. FELL; N. AXMACHER; C. RANGANATH. *UC Davis, Univ. of Cambridge, Univ. of Bonn, Life and Brain Ctr. of Academic Res.*
- 3:00 YY13 **489.11** Neural representation of position information in temporal sequences. L. HSIEH*; M. J. GRUBER; L. J. JENKINS; C. RANGANATH. *UC Davis, UC Davis.*

- 4:00 YY14 **489.12** Brain mechanisms of successful recognition through retrieval of semantic context. K. FLEGAL*; A. MARÍN-GUTIÉRREZ; J. RAGLAND; C. RANGANATH. *Univ. of California, Davis, Univ. of Salamanca, Univ. of California, Davis, Univ. of California, Davis.*
- 1:00 YY15 **489.13** Effects of theta entrainment on source memory. B. M. ROBERTS*; R. J. ADDANTE; Z. CHEN; M. T. KIDON; M. E. MONTCHAL; L. L. KELLY; C. RANGANATH. *Univ. of California, Davis, Univ. of Texas at Dallas, Zhejiang Univ., Univ. of California, Davis.*
- 2:00 YY16 **489.14** Representation of object sets and spatial configurations in the human medial temporal lobes during working memory task performance. L. A. LIBBY*; D. E. HANNULA; L. L. KELLY; C. RANGANATH. *UC Davis, Univ. of Wisconsin, Milwaukee, UC Davis.*
- 3:00 YY17 **489.15** The perirhinal cortex modulates V2 activity in response to the agreement between part familiarity and configuration familiarity. L. CACCIAMANI*; P. E. SCALF; M. D. BARENSE; M. A. PETERSON. *Univ. of Arizona, Univ. of Toronto, Rotman Inst., Univ. of Arizona.*
- 4:00 YY18 **489.16** How similar is too similar? Investigating the boundaries of feature conjunction representations in the perirhinal cortex. D. M. DOUGLAS*; H. C. WATSON; A. C. H. LEE. *Univ. of Toronto.*
- 1:00 YY19 **489.17** Adaptive incorporation of environmental cues during recognition memory judgments. A. KONKEL*; A. JAEGER; I. G. DOBBINS. *Washington Univ. St. Louis.*
- 2:00 YY20 **489.18** Sleep leads to decontextualization of conditioned fear. C. C. G. SWEEGERS*; M. C. W. KROES; L. M. TALAMINI. *Univ. of Amsterdam, Donders Inst. for Brain, Cognition and Behavior.*
- 3:00 ZZ1 **489.19** The relationship among sleep-wake cycles, CLOCK genotype, and associative memory performance in college students. S. M. SHERMAN*; W. M. VANDERLIND; L. T. TRUJILLO; M. D. MATTHEWS; J. E. MCGEARY; C. G. BEEVERS; W. T. MADDOX; D. M. SCHNYER. *Univ. of Texas At Austin, United States Military Acad., Brown Univ.*
- 4:00 ZZ2 **489.20** Behavioral and neural effects of cortisol on emotional and neutral memory. K. A. BENNION*; K. R. M. STEINMETZ; E. A. KENSINGER; J. D. PAYNE. *Boston Col., The Univ. of Notre Dame.*
- 1:00 ZZ3 **489.21** Familiarity can reflect nonconscious memory. P. P. THAKRAL*; E. A. KENSINGER; S. D. SLOTNICK. *Boston Col.*
- 2:00 ZZ4 **489.22** Estrogen and long-term memory for emotional stimuli in young women. A. POMPILI; B. ARNONE; M. D'AMICO; A. GASBARRI*. *Univ. L'Aquila, Dept. Biomed. Sci. and Technologies.*
- 3:00 ZZ5 **489.23** Context memory across the adult lifespan. M. D. FAJARDO*; M. N. RAJAH. *Rajah Lab., Douglas Mental Hlth. Univ. Inst., McGill Univ.*
- 4:00 ZZ6 **489.24** Retrograde memory impairment encompasses everyday knowledge and expert knowledge: Evidence from an amnesic artist. E. GREGORY; M. MCCLOSKEY; K. KELLIHER; B. LANDAU*. *Johns Hopkins Univ.*
- 1:00 ZZ7 **489.25** Stress modulates the engagement of multiple memory systems in classification learning. L. SCHWABE*; O. T. WOLF. *Ruhr-University Bochum.*

- 2:00 ZZ8 **489.26** Effects of drinking patterns on prospective memory performance in college students. S. A. RASKIN*. *Trinity Col.*

POSTER

490. Human Long-Term Memory: Encoding

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 ZZ9 **490.01** Short- and long-range impacts of encoding activity on memory for arousing and non-arousing information. K. R. MICKLEY STEINMETZ*; H. R. ZUCKER; E. A. KENSINGER. *Boston Col., Boston Col., Boston Col.*
- 2:00 ZZ10 **490.02** Schematic representations in patients with lesions to the vmPFC with and without confabulation. V. GHOSH; M. MOSCOVITCH; B. COLELLA; A. GILBOA*. *Univ. of Toronto, Rotman Res. Institute, Baycrest, Toronto Rehabil. Inst., Ctr. for Stroke Recovery.*
- 3:00 ZZ11 **490.03** Sleep dependent consolidation of schema conformant and non-conformant items. P. A. LEWIS; N. HENNIES; S. CAIRNEY; M. LAMBON RALPH*; S. DURRANT. *Univ. of Manchester, Univ. of Manchester, Univ. of Lincoln.*
- 4:00 ZZ12 **490.04** Neural networks involved in retrieval of newly learned words and effect of overnight consolidation - an fMRI study -. A. TAKASHIMA*; I. BAKKER; J. G. VAN HELL; G. JANZEN; J. M. MCQUEEN. *Radboud Univ. Nijmegen, Radboud Univ. Nijmegen, Pennsylvania State Univ., Max Planck Inst. for Psycholinguistics.*
- 1:00 ZZ13 **490.05** Common temporal context promotes hippocampal and ventromedial prefrontal memory integration processes that link experiences. D. ZEITHAMOVA*; A. R. WATTENBERGER; A. R. PRESTON. *Univ. Texas, Austin.*
- 2:00 ZZ14 **490.06** Hippocampal-neocortical functional connectivity reveals memory integration signature that persists during post-encoding rest. M. L. SCHLICHTING*; A. R. PRESTON. *Univ. Texas Austin.*
- 3:00 ZZ15 **490.07** Hippocampal Learning vs. Fast Mapping: Does one preclude the other? A. GREVE*; E. COOPER; K. PATTERSON; R. HENSON. *MRC Cognition and Brain Sci. Unit.*
- 4:00 ZZ16 **490.08** Unraveling the schema effect: Distinct schema-related memory encoding signatures in medial prefrontal and medial temporal cortices. M. T. VAN KESTEREN*; S. BEUL; A. TAKASHIMA; R. N. HENSON; D. J. RUITER; G. FERNÁNDEZ. *Donders Inst. For Brain, Cognition, and Behaviour, Radboud Univ. Med. Ctr., MRC Cognition and Brain Sci. Unit, Radboud Univ. Med. Ctr.*
- 1:00 ZZ17 **490.09** Is scene-item episodic encoding driven by prediction error? R. HENSON*; E. COOPER; A. GREVE. *Med. Res. Council.*
- 2:00 ZZ18 **490.10** Sex differences in the relationship between mood and memory. N. ERTMAN*; L. CAHILL. *Univ. of California, Irvine, Univ. of California, Irvine.*
- 3:00 ZZ19 **490.11** Oxytocin and recognition memory-- Behavioral and ERP effects on own-race and other-race faces, sub-processes of memory, and participant's sex. G. HERZMANN*; T. CURRAN. *Univ. of Colorado Boulder.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 ZZ20 **490.12** Laminar activity in the hippocampal formation and entorhinal cortex related to novelty detection and episodic encoding. A. MAAR*; H. SCHÜTZE; O. SPECK; A. YONELINAS; H. HEINZE; E. DUZEL. *Otto-von-Guericke Univ. Magdeburg, Otto-von-Guericke Univ., Univ. of California, Davis, German Ctr. for Neurodegenerative Disorders.*
- 1:00 AAA1 **490.13** Brain oscillations and BOLD signals related to efficient encoding strategies: A simultaneous EEG-fMRI study. M. FELLNER*; G. VOLBERG; M. GOLDHACKER; M. WIMBER; M. W. GREENLEE; S. HANSLMAYR. *Univ. of Konstanz, Univ. of Regensburg, MRC Cognition and Brain Sci. Unit, Zukunftskolleg, Univ. of Konstanz.*
- 2:00 AAA2 **490.14** Brain activity during fear conditioning in incarcerated psychopaths. D. H. SCHULTZ*; N. L. BALDERSTON; J. P. NEWMAN; C. L. LARSON; F. J. HELMSTETTER. *Univ. Wisconsin-Milwaukee, Univ. of Wisconsin-Madison, Med. Col. of Wisconsin.*
- POSTER**
- 491. Human Cognition and Behavior: Attentional Networks and Function**
- Theme F: Cognition and Behavior**
- Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J
- 1:00 AAA3 **491.01** Neural regions that show error-related activity can be classified into four functionally distinct response profiles. F. M. MIEZIN*; M. NETA; S. M. NELSON; J. W. DUBIS; B. L. SCHLAGGAR; S. E. PETERSEN. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ.*
- 2:00 AAA4 **491.02** Dissociating the roles of lateral and medial prefrontal cortex in decision-making tasks: Implications for stages of processing. S. M. NELSON*; M. E. WHEELER; E. J. PLORAN; J. J. TREMEL; S. E. PETERSEN. *Washington Univ. in St. Louis, Univ. of Pittsburgh, Hofstra Univ.*
- 3:00 AAA5 **491.03** An alternative perspective on human brain hubs: Approaches for identifying integrated information flow in resting state correlation networks. J. D. POWER*; B. L. SCHLAGGAR; S. E. PETERSEN. *Washington Univ., Washington Univ. Sch. of Med.*
- 4:00 AAA6 **491.04** Differences in error-related responses between resource-limited and data-limited tasks. J. W. DUBIS*; J. S. SIEGEL; K. M. VISSCHER; S. E. PETERSEN. *Washington Univ. In St. Louis, Univ. of Alabama at Birmingham, Washington Univ. In St. Louis, Washington Univ. In St. Louis, Washington Univ. In St. Louis, Washington Univ. In St. Louis.*
- 1:00 AAA7 **491.05** Overlapping functional network organization identifies inter-community relationships. H. SUN*; J. POWER; S. E. PETERSEN. *Washington Univ. In St. Louis.*
- 2:00 AAA8 **491.06** Toward optimizing the removal of motion-related artifact in functional connectivity MRI using volume censoring techniques. S. E. PETERSEN*; J. D. POWER; A. Z. SNYDER; T. O. LAUMANN; B. L. SCHLAGGAR. *Washington Univ. Sch. Med., Washington Univ. Sch. Med.*
- 3:00 AAA9 **491.07** Patterns of neural activity within sustained signals implicated in task maintenance can be used to classify specific tasks. M. NETA*; B. NARDOS; B. L. SCHLAGGAR; S. E. PETERSEN. *Washington Univ., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ., Washington Univ.*
- 4:00 AAA10 **491.08** Neurophysiological investigation of spontaneous anticorrelated fluctuations of the BOLD signal. C. KELLER*; C. J. HONEY; S. BICKEL; I. DAVIDESCO; D. GROPE; L. ENTZ; P. B. KINGSLEY; S. HWANG; S. JAIN; M. MILHAM; C. KELLY; F. LADO; A. MEHTA. *Albert Einstein Col. of Med., Princeton Univ., North Shore LIJ Hlth. Syst. and Feinstein Inst. for Med. Res., Hebrew Univ. of Jerusalem, Inst. for Psychology of the Hungarian Acad. of Sci., New York Univ. Child Study Ctr., Montefiore Med. Ctr.*
- 1:00 AAA11 **491.09** fMRI investigations of temporal sequence processing in visual short-term memory of humans. S. W. MICHALKA*; M. L. ROSEN; L. KONG; B. G. SHINN-CUNNINGHAM; D. C. SOMERS. *Boston Univ., Martinos Ctr. for Biomed. Imaging, Ctr. for Computat. Neurosci. and Neural Technol. (CompNet), Boston Univ., Boston Univ., Boston Univ., Boston Univ.*
- 2:00 AAA12 **491.10** Competition between top-down and bottom-up mechanisms of auditory attention in Human. A. BIDET-CAULET*; L. BOTTEMANNE; O. BERTRAND. *INSERM U1028.*
- 3:00 AAA13 **491.11** Developmental differences in spontaneous attention towards emotional faces depend upon valence. E. R. MURPHY*; M. NORR; J. SOKOLOFF; W. GAILLARD; L. KENWORTHY; C. VAIDYA. *Georgetown Univ., Georgetown Univ., Children's Natl. Med. Ctr.*
- 4:00 AAA14 **491.12** Electrophysiological measures of attentional enhancement and suppression of task-irrelevant working memory matches. N. CARLISLE*; G. F. WOODMAN. *UC Davis, Vanderbilt Univ.*
- 1:00 AAA15 **491.13** Re-visiting visual routines. J. K. TSOTSOS*. *York Univ.*
- 2:00 AAA16 **491.14** Visual input increases the coupling between visual alpha oscillations and default mode activity. Y. LIU*; J. MO; H. HUANG; M. DING. *Univ. of Florida.*
- 3:00 AAA17 **491.15** Localized oscillatory activity in the human attention network in response to predictive and unpredictable visual cues. I. DOMBROWE*; C. C. HILGETAG. *Universitaetsklinikum Hamburg-Eppendorf.*
- 4:00 AAA18 **491.16** Target Probability and the Striatum. N. HON*; J. ONG; R. TAN; H. TAN. *Nat'l Univ. Singapore.*
- 1:00 AAA19 **491.17** Inter-subject functional connectivity reveals context-dependent alignment of brain networks. E. SIMONY*; C. J. HONEY; D. AMES; Y. LERNER; U. HASSON. *Dept. of Psychology and Neurosci. Institute, Princeton Univ., Tel Aviv Sourasky Med. Ctr.*
- 2:00 AAA20 **491.18** Transcranial magnetic stimulation reveals lateralized involvement of right parietal cortex, but not frontal eye fields or ventral occipital cortex, in visual conjunction search in far but not near space. I. T. MAHAYANA*; C. CHANG; O. TZENG; D. HUNG; C. JUAN; N. MUGGLETON. *Inst. of Cognitive Neuroscience, Natl. Central University, Taiwan, Natl. Yang-Ming Univ., Natl. Yang-Ming Univ., Academia Sinica, Univ. Col. London.*
- 3:00 BBB1 **491.19** Altered default mode network connectivity after psilocybin. R. L. CARHART-HARRIS*; R. LEECH; D. ERRITZOE; D. SHARP; R. WISE; D. NUTT. *Imperial Col. London, Imperial Col. London, Cardiff Univ.*

- 4:00 BBB2 **491.20** The temporoparietal junction: Functional localization and functional connectivity in individual subjects. K. J. DEVANEY*; M. L. ROSEN; S. W. MICHALKA; L. KONG; D. C. SOMERS. *Boston Univ., Athinoula A. Martinos Ctr. for Biomed. Imaging.*
- 1:00 BBB3 **491.21** Resting-state functional connectivity identifies behaviorally relevant prefrontal lobe regions within the dorsal attention network in individual subjects. L. KONG*; M. L. ROSEN; S. W. MICHALKA; B. G. SHINN-CUNNINGHAM; D. C. SOMERS. *Boston Univ., Martinos Ctr. for Biomed. Imaging, Boston Univ., Boston Univ., Boston Univ., Boston Univ.*
- 2:00 BBB4 **491.22** Thalamocortical interactions in visual spatial attention. X. WEN*; Y. LIU; L. YAO; M. DING. *Dept. of Biomed. Engineering, Univ. of Florida, Univ. of Florida, Beijing Normal University.*
- 3:00 BBB5 **491.23** Local BOLD oscillations reflect network-specific structural and functional connectivity, differentially between rest and task. A. BARIA*; A. MANSOUR; L. HUANG; M. BALIKI; G. CECCHI; M. MESULAM; A. APKARIAN. *Northwestern Univ., IBM.*
- 4:00 BBB6 **491.24** Default mode network changes induced by Ayahuasca. F. P. FONTES*; S. T. G. RIBEIRO; J. P. PINTO; J. E. C. HALLAK; J. A. S. CRIPPA; D. B. DE ARAUJO. *Brain Institute, Federal Univ. of Rio Grande do Norte (UFRN), Dept. of Neurosci. and Behavioral Sciences, Univ. of Sao Paulo (USP).*
- 1:00 BBB7 **491.25** Modulation of sensory cortex alpha rhythms during intermodal attention and working memory: Evidence from EEG and ECoG. K. L. ANDERSON*; D. KING-STEPHENS; K. D. LAXER; P. B. WEBER; J. PARVIZI; R. T. KNIGHT. *UC Berkeley, UC Berkeley, California Pacific Med. Ctr., California Pacific Med. Ctr., UC San Francisco, Stanford Univ., Stanford Univ.*
- 2:00 BBB8 **491.26** Attention processing in mixed anxious and depressed adults: Behavioral data for the Attention Network Test. J. W. KIRTON*; C. N. SOZDA; M. GREEN; D. A. S. KAUFMAN; W. M. PERLSTEIN; V. M. DOTSON. *Univ. of Florida, St. Louis Univ.*
- 3:00 BBB9 **491.27** Testing the effect of emotion on cognitive processing efficiency under conditions of uncertainty. J. K. PALOMINO*; N. T. VAN DAM; J. FAN. *Queens College, City Univ. of New York, Dept. of Psychiatry, Mount Sinai Sch. of Med.*
- 4:00 BBB10 **491.28** Higher default mode network activity is associated with poorer performance during a multi-modal continuous attention task. J. E. BRAMEN*; A. LENARTOWITCZ; G. SIMPSON; M. COHEN. *UCLA, Brain Plasticity Inst.*
- 1:00 BBB11 **491.29** Changes in mnemonic activity drive task-dependent alpha band oscillations: A network model for effective ignoring. S. BERTEAU; R. SEKULER*; P. MILLER. *Boston Univ., Brandeis Univ.*
- 2:00 BBB12 **491.30** A role of right middle frontal gyrus in endogenous and exogenous visual attention: A case study. M. D. SATYSHUR; S. JAPEE; I. MUKAI*; L. G. UNGERLEIDER. *NIMH/NIH.*

POSTER

492. Human Cognition and Behavior: Attentional Networks Electrophysiology and Imaging

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 BBB13 **492.01** Interplay between scale-free dynamics and functional connectivity in intrinsic fMRI networks. P. CIUCIU*; P. ABRY; B. J. HE. *Cea/Neurospin, ENS Lyon & CNRS, NIH.*
- 2:00 BBB14 **492.02** Characterization of childhood absence seizures and ictal performance on high-density EEG. J. N. GUO*; S. JHUN; X. BAI; M. NEGISHI; J. RODRIGUEZ-FERNANDEZ; H. MISTRY; W. XIAO; C. BAILEY; M. J. CROWLEY; R. T. CONSTABLE; L. C. MAYES; H. BLUMENFELD. *Yale Univ., Yale Univ.*
- 3:00 BBB15 **492.03** Attention performance during typical childhood absence seizures. J. RODRÍGUEZ-FERNÁNDEZ; S. JHUN; J. GUO; J. GONZALEZ; W. XIAO; M. NEGISHI; X. BAI; N. DANIELSON; X. HAN; T. CONSTABLE; H. BLUMENFELD*. *Yale Univ. Sch. of Med., Yale Univ. Sch. of Med.*
- 4:00 BBB16 **492.04** Understanding the function of brain regions and networks: A data-driven approach. J. KINNISON*; M. ANDERSON; L. PESSOA. *Univ. of Maryland, Franklin & Marshall Col.*
- 1:00 BBB17 **492.05** Microstructure of the amygdalo-prefrontal white matter track predicts nonconscious attention bias to threat. J. CHA*; J. CARLSON; E. HARMON-JONES; L. MUJICA-PARODI; G. HAJCAK. *Stony Brook Univ., Stony Brook Univ., Univ. of New South Wales.*
- 2:00 BBB18 **492.06** Multimodal brain imaging of neuronal oscillations during auditory attention shifting. J. AHVENINEN*; S. HUANG; J. W. BELLIVEAU; W. CHANG; M. HÄMÄLÄINEN. *MGH/Harvard Med. Sch.*
- 3:00 BBB19 **492.07** Human brain in a dish: Normal and epileptiform rhythms. C. M. FLOREZ; R. MCGINN; V. LUKANKIN; I. MARWA; S. SUGUMAR; J. DIAN; P. L. CARLEN*; L. ZHANG; T. VALIANTE. *Toronto Western Hosp.*
- 4:00 BBB20 **492.08** ▲ The effects of cell phone use on the p3 of the event-related potential and on response time. V. M. MAGANA; E. E. PONGPIPAT; T. RODRIGUEZ; V. CAMACHO; E. A. VALADEZ; J. P. ABARA*. *California State Univ. Northridge.*
- 1:00 BBB21 **492.09** Impairments of the magnocellular pathway in autism spectrum disorders as assessed by visual-evoked potentials. C. N. ZISMAN*; T. SZABO; M. CROGNAL; W. WILLIAMS; J. J. HUTSLER. *Univ. of Nevada, Reno.*
- 2:00 BBB22 **492.10** Baseline response of covert attention in human superior colliculus using fMRI. S. KATYAL*; D. RESS. *The Univ. of Texas At Austin.*
- 3:00 BBB23 **492.11** Large-scale directed cortical network for human visuospatial attention. T. P. MEEHAN; S. L. BRESSLER*; C. M. SYLVESTER; G. L. SHULMAN; M. CORBETTA. *Florida Atlantic Univ., Florida Atlantic Univ., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*
- 4:00 BBB24 **492.12** Using EEG to examine brain energy expenditure in the context of variations in mental workload and body iron status. M. J. WENGER*; L. E. MURRAY-KOLB; J. D. HAAS. *The Univ. of Oklahoma, Cornell Univ., The Pennsylvania State Univ.*

Mon. PM

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 BBB25 **492.13** Dissociating brain networks for alertness and selective attention. S. SADAGHIANI*; M. D'ESPOSITO. *Univ. of California, Univ. of California.*
- 2:00 BBB26 **492.14** The effect of eye closure on the human electrocorticogram. A. GELLER*; J. F. BURKE; M. J. KAHANA. *Univ. of Pennsylvania.*
- 3:00 BBB27 **492.15** ▲ Visual attention networks and P300-based brain-computer interface performance. V. CORBIT; C. ANGELONI; D. SALTER; T. LORENCE; Y. YU; L. A. GABEL*. *Lafayette Col., Lafayette Col., Lafayette Col.*
- 4:00 BBB28 **492.16** Delta phase modulations over spatially selective brain regions during allocation of spatial attention. A. L. DAITCH*; D. T. BUNDY; M. SHARMA; N. SZRAMA; G. L. SHULMAN; E. C. LEUTHARDT; M. CORBETTA. *Washington Univ, St Louis, Washington Univ. in St. Louis.*
- 1:00 BBB29 **492.17** Rapid reorienting of attention as reflected in an n2pc event-related potential component. D. TALSMA*; A. VAN HARMELEN; J. THEEUWES. *Universisty of Ghent, Leiden Univ., Vrije Univ.*
- 2:00 BBB30 **492.18** Decoding and training sustained attention with real-time fMRI. M. T. DEBETTENCOURT*; R. F. LEE; J. D. COHEN; K. A. NORMAN; N. B. TURK-BROWNE. *Princeton Univ.*
- 3:00 BBB31 **492.19** Development of attentional networks: Volume-based morphometry study. T. FUJII*; D. N. SAITO; H. T. YANAKA; H. KOSAKA; T. MURAMATSU; H. OKAZAWA. *Univ. of Fukui, Univ. of Fukui, Univ. of Fukui, Tottori Univ., Univ. of Fukui, Univ. of Fukui.*
- 4:00 BBB32 **492.20** ● Brain network activation (bna) brain network mapping technology - test-retest reliability. A. RECHES*; D. KEREM; D. DICKMAN; R. HASHMONAY; N. GAL; I. LAUFER; A. B. GEVA. *Elminda LTD, Elminda, Ben Gurion Univ. of the Negev.*
- 1:00 BBB33 **492.21** The frequency characteristics of intrinsic functional networks: Linking concurrent EEG-fMRI. D. A. BRIDWELL*; L. WU; T. EICHELE; V. CALHOUN. *Mind Res. Network, Univ. of New Mexico, Univ. of Bergen.*
- 2:00 BBB34 **492.22** Overlapping neural correlates of awareness and attention with fMRI. D. GODWIN*; R. BARRY; R. MAROIS. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ., Vanderbilt Univ.*
- 3:00 BBB35 **492.23** Modifications in sense of self are associated with rest-related prefrontal cortex functional connectivity: A combined deep-TMS - fMRI study. M. GRUBERGER; Y. LEVKOVITZ; E. V. HAREL; H. HARARI; E. BEN-SIMON; H. SHARON; T. HENDLER; A. ZANGEN*. *Tel-Aviv Univ., Functional Brain Center, Wohl Inst. for Advanced Imaging, Tel-Aviv Sourasky Med. Ctr., Tel-Aviv Univ., The Emotion-Cognition Res. Center, Shalvata Mental Hlth. Ctr., The Emotion-Cognition Res. Center, Shalvata Mental Hlth. Ctr., Ben-Gurion Univ.*
- 4:00 BBB36 **492.24** Top-Down modulation of cortical interareal synchronization with tactile attention in normal subjects and trained meditators: A MEG and computational modeling study. C. E. KERR*; M. SACCHET; R. LAPLANTE; M. HAMALAINEN; A. K. C. LEE; Q. WAN; D. PRITCHETT; C. I. MOORE; S. R. JONES. *Brown Univ., Stanford Univ., MGH, Univ. of Washington, MIT.*
- 1:00 BBB37 **492.25** Simultaneous EEG and fMRI measures of top-down spatial attention. G. R. MANGUN*; J. J. BENGSON; A. MAZAHERI. *Univ. Calif, Univ. of Amsterdam.*
- 2:00 BBB38 **492.26** Revealing single-trial time course of a sensory buffer during the psychological refractory period using a new spatial filtering method. S. MARTI*; A. SCHURGER; S. DEHAENE. *INSERM / CEA Neurospin, INSERM / CEA Neurospin - Col. de France.*
- 3:00 BBB39 **492.27** ▲ Inhibition, performance- and conflict monitoring in healthy humans: A simultaneous eeg/fmri study. R. IANNACCONE*; T. U. HAUSER; R. DRECHSLER; D. BRANDEIS; S. WALITZA; S. BREM. *Univ. of Zurich, PhD Program in Integrative Mol. Med., Univ. of Zurich, Central Inst. of Mental Hlth.*
- 4:00 BBB40 **492.28** Modulation of background connectivity in human visual cortex by spatial attention. A. TOMPARTY*; N. AL-AIDROOS; N. B. TURK-BROWNE. *Princeton Univ., Univ. of Guelph.*

POSTER

493. Emotion: Information Processing and Neurocircuitry

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 BBB41 **493.01** Decoding affective states: Multivariate representations of distinct emotions in the human brain. P. A. KRAGEL*; K. S. LABAR. *Duke Univ.*
- 2:00 BBB42 **493.02** Using DTI and high resolution BOLD to identify distinct functional subunits of the human amygdala. N. L. BALDERSTON*; D. H. SCHULTZ; A. K. GRADY; F. J. HELMSTETTER. *Univ. Wisconsin-Milwaukee, Med. Col. of Wisconsin.*
- 3:00 BBB43 **493.03** An intra-cranial EEG evidence for network formation and organization during experience of emotional meaning. N. SINGER; I. PODLIPSKY; F. ESPOSITO; S. KIPERVASSER; M. Y. NEUFELD; R. GOEBEL; I. FRIED*; T. HENDLER. *Tel-Aviv Univ., Tel-Aviv Sourasky Med. Ctr., Maastricht Univ., Tel-Aviv Sourasky Med. Ctr., Tel-Aviv Univ., UCLA Sch. Med., Tel-Aviv Sourasky Med. Ctr.*
- 4:00 BBB44 **493.04** Neural mechanisms supporting affective mnemonic interference resolution. C. REECK*; K. S. LABAR. *Duke Univ.*
- 1:00 BBB45 **493.05** Single unit activity in the subthalamic nucleus of the human basal ganglia is modulated by emotional stimuli. C. R. CAMALIER*; L. A. ALLEN; A. Y. WANG; J. A. ALBRITTON; P. E. KONRAD; B. S. FOLLEY; J. S. NEIMAT. *Vanderbilt Univ., Norton Neurosci. Insitute.*
- 2:00 BBB46 **493.06** Negative affect speeds up the propagation of visual information during perception. M. F. PANICHELLO; M. CHAUMON; K. KVERAGA; M. BAR*; L. F. BARRETT. *Massachusetts Gen. Hosp., Humboldt-Universität zu Berlin, Massachusetts Gen. Hospital/Harvard Med. Sch., Bar-Ilan Univ., Massachusetts Gen. Hospital/Harvard Med. Sch., Northeastern Univ.*
- 3:00 BBB47 **493.07** Hemispheric asymmetries of humor comprehension and appreciation. Y. FENG*; Y. CHAN; H. CHEN. *Natl. Taiwan Normal Univ.*
- 4:00 CCC1 **493.08** Learning Emotions. L. MCDONOUGH*; C. WILSON-MENDENHALL; W. K. SIMMONS; L. FELDMAN BARRETT; L. W. BARSALOU. *Emory Univ., Northeastern Univ., The Laureate Inst. for Brain Res.*
- 1:00 CCC2 **493.09** Competition between reward and threat processing. J. CHOI; S. PADMALA*; P. SPECHLER; L. PESSOA. *Univ. of Maryland, Univ. of Maryland.*

- 2:00 CCC3 **493.10** Comparing visual processing and affective perception of fearful scenes. B. GUO*; M. MENG. *Dartmouth Col.*
- 3:00 CCC4 **493.11** Serotonergic modulation of human fear reversal learning. A. M. APERGIS-SCHOUTE*; M. J. CROCKETT; T. W. ROBBINS. *Univ. of Cambridge, Univ. of Zurich.*
- 4:00 CCC5 **493.12** Conditioned fear acquired in close personal space is resistant to extinction. J. E. DUNSMOOR*; F. ÅHS; D. ZIELINSKI; K. S. LABAR. *Duke Univ., Duke Univ.*
- 1:00 CCC6 **493.13** Learning about fear and safety without awareness. H. L. LAU*; D. CARMEL; C. M. RAO; D. SCHILLER. *Mount Sinai Sch. of Med., Univ. of Edinburgh, New York Univ.*
- 2:00 CCC7 **493.14** Differential effects of sleep versus wakefulness on odorant-evoked reactivation of fear memories. K. HAUNER*; J. HOWARD; J. GOTTFRIED. *Northwestern Univ.*
- 3:00 CCC8 **493.15** A computational neuroscientific model of anticipation and emotional response to music. M. FUKINO*; K. SAWAI; K. AIHARA. *Panasonic Corp., Inst. of Industrial Science, Univ. of Tokyo, FIRST, Aihara Innovative Mathematical Modelling Project.*
- 4:00 CCC9 **493.16** Brain activities and impression evaluation for chord progression: The study of perception for chord progression. M. TAKASE*; E. AIBA; S. TANAKA; T. X. FUJISAWA; S. AKATSUKA; T. SHIMOTOMAI; N. NAGATA. *Dept. of Informatics, Sch. of Sci. and Technology, Kwansei Gakuin Univ., Natl. Inst. of Advanced Industrial Sci. and Technol., Grad. Sch. of Bio medical Science, Nagasaki Univ., Brain Sci. Institute, Tamagawa Univ.*
- 1:00 CCC10 **493.17** Conjoint recruitment of default mode and fronto-parietal attention networks by the time-varying structure of self-selected spiritual music. F. BARRETT*; P. JANATA. *Univ. of California, Davis.*
- 2:00 CCC11 **493.18** Electrocortical markers of lying: when truthful people are taken for mendacious. A. M. PROVERBIO*; M. E. VANUTELLI; R. ADORNI. *Univ. Milano-Bicocca.*
- 3:00 CCC12 **493.19** ▲ The impact of the mirror neuron system on human empathy. S. CAMPOS*; T. NELSON; J. PINEDA. *UCSD.*
- 4:00 CCC13 **493.20** Influence of differential positive emotional states on the neurophysiological correlates of prosocial altruistic motivations. W. PIPER; M. BRYDONE-JACK; B. ROSE; M. HOWE; S. R. SATURN*. *Oregon State Univ.*
- 1:00 CCC14 **493.21** Neural substrates of cognitive empathy for sadness modulated by tears: A functional MRI study. H. K. TAKAHASHI*; R. KITADA; A. T. SASAKI; H. KAWAMICHI; N. SADATO. *Natl. Inst. For Physiological Sci. (NIPS), The Grad. Univ. for Advanced Studies (Sokendai).*
- 2:00 CCC15 **493.22** Effects of emotional contexts on response inhibition in adolescents compared to adults: An fMRI study. L. G. SILVA; F. A. BARRIOS; A. A. GONZÁLEZ; J. RAMOS-LOYO*. *Univ. de Guadalajara, Inst. de Neurobiología, Univ. Nacional Autónoma de México, Inst. de Neurociencias, Univ. de Guadalajara.*
- 3:00 CCC16 **493.23** The neural correlates of relational aggression using a social conditioning task. E. C. MAZZULLA*; D. MURRAY-CLOSE; A. S. POTTER. *Univ. of Vermont.*

- 4:00 CCC17 **493.24** The role of dopamine D2 receptors on false memories of emotionally arousing short stories. R. V. GUARNIERI*; R. L. RIBEIRO; C. GOMES; L. BURATTO; L. STEIN; O. F. A. BUENO. *Univ. Federal De São Paulo, Pontificia Univ. Católica do Rio Grande do Sul.*

POSTER

494. Human Decision-Making: Perceptual Processes

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 CCC18 **494.01** Perceptual decision making and the time-order effect: A neural circuit model of biased vibrotactile discrimination. A. LANGDON*; J. RINZEL; M. BREAKSPEAR. *Univ. of New South Wales, The Black Dog Inst., Ctr. for Neural Science, New York Univ., Courant Inst. of Mathematical Sciences, New York Univ., Queensland Inst. of Med. Res.*
- 2:00 CCC19 **494.02** Transient prior probabilities affect choice bias during temporally extended perceptual decision-making. K. E. DUNOVAN*; J. J. TREMEL; M. E. WHEELER. *Univ. of Pittsburgh, Learning Res. and Develop. Ctr., Ctr. for the Neural Basis of Cognition, Ctr. for Neurosci.*
- 3:00 CCC20 **494.03** Individual differences in response time distributions for decisions relate to right prefrontal cortex recruitment. K. A. BARNES*; K. M. ANDERSON; A. MARTIN. *NIH.*
- 4:00 CCC21 **494.04** Neural accumulation during face/house discrimination in stimulus-specific regions. J. J. TREMEL*; M. E. WHEELER. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 1:00 CCC22 **494.05** Individual differences in pre-task functional connectivity predict subsequent decision making. K. M. ANDERSON; K. A. BARNES; A. MARTIN*. *NIMH/NIH.*
- 2:00 CCC23 **494.06** The strength of gradually accumulating choice probabilities modulates brain activity prior to a categorical decision. M. E. WHEELER*; S. WOO; J. TREMEL; T. VIJAYAN; A. COLLIER; E. FLORAN; T. YANG. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Hofstra Univ., NIH.*
- 3:00 CCC24 **494.07** Modulation of brain activity by task difficulty in perceptual decision-making. B. LAMICHHANE*; B. M. ADHIKARI; M. DHAMALA. *Georgia State Univ., Georgia State Univ.*
- 4:00 CCC25 **494.08** Exogenous oscillations index task difficulty in perceptual decisions. Y. LI; B. LOU; X. GAO; P. SAJDA*. *Tsinghua Univ., Columbia Univ.*
- 1:00 CCC26 **494.09** How you know how good you are: Bayesian updating of beliefs about visuomotor performance. F. SCHUEUER*; S. C. LEFTIN; H. E. GERHARD; L. T. MALONEY. *New York Univ., Max Planck Inst. for Biol. Cybernetics.*
- 2:00 CCC27 **494.10** Choosing sides - the psychophysics of decision making in a two-direction motion stimulus. E. LAM*; J. F. KALASKA. *Univ. De Montreal.*
- 3:00 CCC28 **494.11** Decision-making depends on an urgency signal modulated by context. E. MARCOS; M. CARLAND; D. THURA; P. CISEK; P. F. VERSCHURE*. *Univ. Pompeu Fabra, Univ. de Montreal, ICREA - Univ. Pompeu Fabra.*
- 4:00 CCC29 **494.12** Dynamics of preference-based categorical decision-making in humans. K. JUNG*; M. MENG; J. D. KRALIK. *Dartmouth Col.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 CCC30 **494.13** Hierarchical Bayesian estimation of the drift diffusion model: quantitative comparison with maximum likelihood. T. V. WIECKI*; I. SOFER; M. J. FRANK. *Brown.*
- 2:00 CCC31 **494.14** Cracking the neural correlates of ambiguous perception using EEG/fMRI. J. M. CASTELHANO*; I. C. DUARTE; E. RODRIGUEZ; M. CASTELO-BRANCO. *IBILI - Fac. of Medicine, Univ. of Coimbra, Pontificia Univ. Catolica de Chile.*
- 3:00 CCC32 **494.15** An fMRI investigation of the accumulation of information for categorization. K. BRAUNLICH*; K. MUSSELL; G. FAN; C. SEGER. *Colorado State Univ.*
- 4:00 CCC33 **494.16** Illuminating the role of medial-frontal cortex in error processing. C. TSE*; T. S. L. KONG; Y. HUANG; B. A. GORDON; K. KWOK; T. B. PENNEY. *Natl. Univ. of Singapore, Washington Univ.*
- 1:00 CCC34 **494.17** • Across-trial effect of stimulus expectancy violation. Y. KANEKO*; K. UMEDA; K. SAKAI. *Grad. Sch. of Medicine, The Univ. of Tokyo.*
- 2:00 CCC35 **494.18** Exploring human confidence using implicit measures based on waiting time. H. A. JOHNSON*; R. VENTURINI; Z. F. MAINEN. *Champalimaud Neurosci. Programme.*
- 3:00 CCC36 **494.19** Neural correlates of evidence accumulation in intracranial EEG. M. A. BEULEN*; M. K. VAN VUGT. *Univ. of Groningen.*
- 4:00 CCC37 **494.20** Contribution of human parietal cortex to object categorization under uncertainty. M. VAZIRI PASHKAM*; Y. XU. *Harvard Univ.*
- 1:00 CCC38 **494.21** Uncovering the neural dynamics of slowed-down perceptual decisions in humans - a model-based analysis. M. K. VAN VUGT*. *Univ. of Groningen.*
- 2:00 CCC39 **494.22** Trial-to-trial fluctuations in response caution predict fronto-striatal activation dynamics. L. VAN MAANEN*; S. BROWN; T. EICHELE; E. WAGENMAKERS; T. HO; J. T. SERENCES; B. U. FORSTMANN. *CSCA, Univ. of Newcastle, Univ. of Bergen, Univ. of Amsterdam, Univ. of California at San Diego.*
- 3:00 CCC40 **494.23** Structural vmPFC-STN connections predict sensitivity for choice bias. M. MULDER*; W. BOEKEL; R. RATCLIFF; B. FORSTMANN. *Univ. of Amsterdam, Univ. of Amsterdam, The Ohio State Univ.*
- 4:00 CCC41 **494.24** An optimal goal-directed decision policy for active vision explains fixation choice and duration in a human visual search task. H. HUANG*; S. AHMAD; A. J. YU. *UCSD.*
- 3:00 CCC44 **495.03** Voxel-based morphometry reveals differences between brains of defeated versus novel cage controls in hamsters. K. E. MCCANN*; O. P. KEIFER, Jr; C. M. MARKHAM; K. J. RESSLER; K. L. HUHMANN. *Georgia State Univ., Emory Univ., Howard Hughes Med. Inst., Ctr. for Behavioral Neurosci.*
- 4:00 CCC45 **495.04** Mapping connectivity of the fear conditioning circuit in the mouse: a classical tracing and diffusion tensor imaging study. O. P. KEIFER*, JR; G. REID; D. GUTMAN; S. KEILHOLZ; K. RESSLER. *Emory Univ., Emory University, Georgia Tech.*
- 1:00 CCC46 **495.05** Gephyrin is a key factor in BDNF-dependent GABA_A receptor regulation in amygdala. L. MOU*; K. RESSLER. *Emory Univ., Emory University, HHMI.*
- 2:00 CCC47 **495.06** Gephyrin expression in the basolateral amygdala (BLA) alters fear learning. H. B. GOSNELL*; L. MOU; K. J. RESSLER. *Yerkes NPRC, Emory Univ., Howard Hughes Med. Inst.*
- 3:00 CCC48 **495.07** Prelimbic NMDA receptor subunit 1 (NR1) regulates fear learning. D. C. CHOI*; K. M. MYERS; K. J. RESSLER. *Emory Univ., Behavioral Genet. Laboratory, McLean Hospital, Harvard Med. Sch., Emory University, Howard Hughes Med. Inst.*
- 4:00 CCC49 **495.08** A role for olfactory epithelium neurogenesis following olfactory learning? F. G. MORRISON*; B. G. DIAS; D. C. CHOI; K. J. RESSLER. *Yerkes Natl. Primate Res. Center, Emory Univ., Howard Hughes Med. Inst.*
- 1:00 CCC50 **495.09** Gene expression in auditory thalamus-lateral amygdala pathway in fear conditioning. I. KLOTSMAN KATZ*; R. LAMPRECHT. *Univ. of Haifa.*
- 2:00 CCC51 **495.10** Ephrin-A4 in lateral amygdala in long-term fear conditioning memory formation. M. DINES; R. LAMPRECHT*. *Dept. of Neurobio. and Ethology, Univ. of Haifa.*

POSTER

496. Neural Circuitry for Fear Learning: Amygdala and Related Structures

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 CCC52 **496.01** Freezing to the predator odor 2,4,5 dihydro 2,5 trimethylthiazoline is disrupted by olfactory bulb removal but not trigeminal deafferentation. L. W. AYERS*; A. ASOK; F. HEYWARD; K. O'CONNELL; A. AGOSTINI; A. AGOSTINI; J. B. ROSEN. *Univ. Delaware, Univ. of Delaware, Univ. of Alabama.*
- 2:00 CCC53 **496.02** Fear conditioning is associated with fewer synapses in the lateral amygdaloid nuclei of the rat. C. CARRIERE; S. HILL; M. BOUDREAULT; A. MANN-SULLIVAN; S. MEYERS; A. STILLAR; M. J. SAARI; A. C. WEEKS*. *Nipissing Univ.*
- 3:00 CCC54 **496.03** The GRP peptide and the GRPR-positive interneurons control fear acquisition and extinction. K. ZUSHIDA*; K. LIGHT; S. UCHIDA; C. HEVI; G. P. SHUMYATSKY. *Rutgers Univ.*
- 4:00 CCC55 **496.04** Blockade of dopamine D1 receptors within the rat intercalated paracapsular islands have anxiolytic effects in different unconditioned anxiety tests. E. PALOMARES*; M. CRESPO; K. FUXE; M. PÉREZ DE LA MORA. *Inst. de Fisiología Celular, Karolinska Institutet.*

POSTER

495. Amygdala and Fear Learning: Molecular Mechanisms

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 CCC42 **495.01** The role of Tac2 gene and Nk3 receptor in fear memory consolidation. R. ANDERO GALI*; B. G. DIAS; K. J. RESSLER. *Emory Univ., HHMI, Emory Univ.*
- 2:00 CCC43 **495.02** GABAergic and Glutamatergic regulation of Corticotropin Releasing Factor neurons differentially contributes to anxiety and fear behavior. G. M. GAFFORD*; J. GUO; D. G. RAINNIE; K. J. RESSLER. *Emory Univ., Howard Hughes Med. Inst.*

- 1:00 CCC56 **496.05** Sleep deprivation alters phosphorylated CREB levels in the amygdala: Relationship with performance in a fear conditioning task. K. M. MOREIRA*; N. C. PINHO; D. C. HIPOLIDE; R. SINIGAGLIA-COIMBRA; T. L. FERREIRA; J. N. NOBREGA; S. TUFIK; M. G. M. OLIVEIRA. *UNIFESP, UFABC, Ctr. for Addiction and Mental Hlth.*
- 2:00 CCC57 **496.06** Setting associative learning levels through activation of amygdala pyramidal neurons. T. OZAWA*; E. A. YCU; J. KOIVUMAA; J. P. JOHANSEN. *RIKEN Brain Sci. Inst.*
- 3:00 CCC58 **496.07** Recordings and optogenetic manipulations of defined interneuron subtypes in fear conditioning. S. B. E. WOLFF*; C. HERRY; J. GRÜNDEMANN; I. EHRLICH; P. TOVOTE; J. J. LETZKUS; C. MÜLLER; A. LÜTHI. *Friedrich Miescher Inst., INSERM U862, Neurocentre Magendie, Hertie Inst. for Clin. Brain Res.*
- 4:00 CCC59 **496.08** Attenuation of tone-conditioned freezing in lateral amygdala-selective glucocorticoid receptor knockout mice. R. INOUE*; A. TANAKA; H. MORI. *Univ. Toyama.*
- 1:00 CCC60 **496.09** Phasic dopamine modulation of basolateral amygdala activity during fear conditioning. G. L. JONES; A. S. CHUNG; C. R. KNAKAL; H. LEE; L. S. ZWEIFEL*. *Univ. of Washington.*
- 2:00 CCC61 **496.10** Brief exposure to a cat produces an adrenergic-dependent "flashbulb memory" in rats. L. BULLARD; C. R. PARK; D. M. DIAMOND*. *Univ. South Florida, VA Hosp.*
- 3:00 CCC62 **496.11** M1 muscarinic receptors in the basolateral amygdala redundantly initiate phospholipase C activity required for cued fear memory consolidation. M. B. YOUNG; S. A. THOMAS*. *Univ. of Pennsylvania.*
- 4:00 CCC63 **496.12** Infusion of neuropeptide Y into the basolateral amygdala reduces the behavioral effect of social defeat stress. C. M. MARKHAM*; K. L. HUHMANN. *Georgia State Univ., Georgia State Univ.*
- 1:00 CCC64 **496.13** Amygdala circuits mediating the switch between active and passive fear responses. J. P. FADOK*; P. TOVOTE; S. B. WOLFF; L. DEMMOU; C. MÜLLER; A. LÜTHI. *Friedrich Miescher Inst.*
- 2:00 CCC65 **496.14** Preliminary evidence that $\beta 3$ adrenoceptors regulate fear conditioning by modulating GABAergic transmission in the basolateral amygdala. M. J. SKELLY*; A. M. CHAPPELL; O. J. ARIWODOLA; J. L. WEINER. *Wake Forest Univ. Hlth. Sci.*
- 3:00 CCC66 **496.15** Morphine injection into the amygdala and hippocampus induces state dependent learning. M. A. RUBIN*; M. M. ROSA; D. A. RIBEIRO; C. SIGNOR; C. F. MELLO. *Federal Univ. of Santa Maria (UFSM).*
- 4:00 CCC67 **496.16** Amygdala arc expression following declarative memory consolidation: A trace-cued-fear conditioning analysis. L. S. CHAU*; A. PRAKAPENKA; S. A. FLEMING; S. CHEN; R. GALVEZ. *Univ. of Illinois, Univ. of Illinois.*
- 1:00 CCC68 **496.17** Acid sensing ion channels are highly expressed in the habenula and influence motor inhibition in response to aversive stimuli. M. P. PRICE*; H. GONG; M. G. PARSONS; J. R. KUNDERT; J. A. WEMMIE; M. J. WELSH. *Univ. Iowa.*
- 2:00 CCC69 **496.18** Oxytocin receptor mediates social fear-related activity in the amygdala: Multimodal analyses via MEMRI, telemetry, and behavioral observation. S. I. MOK; J. P. MUNASINGHE; S. YOUNG*. *NIMH, NIH, DHHS, NINDS, NIH, DHHS, NIMH, NIH, DHHS.*
- 3:00 CCC70 **496.19** Vagus Nerve Stimulation coincident with conditioned fear stimuli during extinction facilitates metaplasticity between the prefrontal cortex and the basolateral amygdala. D. F. PENA*; C. MCINTYRE. *Univ. of Texas At Dallas.*
- 4:00 CCC71 **496.20** ▲ Reactivating fear under propranolol disrupts fear memory and reinstates pre-trauma levels of dendritic spines and phospho-erk signaling in basolateral amygdala neurons. A. BORRECA; G. VETERE; V. PISERCHIA; G. NOVEMBRE; M. ACETI; P. LONGONE*; M. AMMASSARI-TEULE. *Fondazione Santa Lucia, Fondazione Santa Lucia-Institute of Cell. Biol. and Neurobiology, C.N.R.-National Res. Council, Inst. of Cell. Biol. and Neurobiology, C.N.R.-National Res. Council, Inst. of Cell. Biol. and Neurobiology, C.N.R.-National Res. Council-I.R.C.C.S. S.Lucia Fndn.*
- 1:00 CCC72 **496.21** Differential roles of the L-type voltage gated calcium channel subtypes, Cav1.2 and Cav1.3, in thalamo-amygdala long term potentiation. S. JIMINEZ TEMME*; G. G. MURPHY. *Univ. of Michigan.*
- 2:00 CCC73 **496.22** Neuronal circuits for expression of active versus passive defensive behaviors. P. TOVOTE*; M. S. ESPOSITO; S. B. E. WOLFF; J. P. FADOK; Z. J. HUANG; S. ARBER; A. LÜTHI. *Friedrich Miescher Inst., Cold Spring Harbor Lab.*
- 3:00 CCC74 **496.23** Microcircuits of fear and reward learning in the amygdala. L. DEMMOU*; J. BACELO; J. FADOK; C. HERRY; C. MUELLER; A. LÜTHI. *Friedrich Miescher Inst., INSERM U862.*

POSTER

497. Learning and Memory: Hippocampal Circuits II

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 CCC75 **497.01** ● Dynamics of cell assemblies during novel experience. V. LOPES DOS SANTOS*; A. TORT; S. RIBEIRO. *Federal Univ. of Rio Grande Do Norte.*
- 2:00 CCC76 **497.02** How the cognitive map evolved from chemotaxis: A new hypothesis about the evolution and function of olfaction. L. F. JACOBS*. *Univ. California.*
- 3:00 CCC77 **497.03** KCNH2-3.1 transgenic mice exhibit deficits in object location memory. G. V. CARR*; A. BEBENSEE; Q. TIAN; J. CHEN; F. PAPALETTO; D. R. WEINBERGER. *Natl. Inst. of Mental Hlth., The Inst. Italiano di Tecnologia, Lieber Inst. for Brain Develop.*
- 4:00 CCC78 **497.04** Total number of reelin immunoreactive neurons in layer II of the entorhinal cortex in young and aged behaviorally characterized rhesus monkeys. J. M. LONG*; E. J. PEREZ; J. A. ROBERTS; M. T. ROBERTS; S. BHAMIDIPATY; P. R. RAPP. *Natl. Inst. On Aging-NIH, Valley Biosystems, California Natl. Primate Res. Ctr.*
- 1:00 CCC79 **497.05** A food deprivation-dependent effect of high-energy diet on DRL performance. C. H. SAMPLE; A. U. NEAL; L. E. JARRARD*; T. L. DAVIDSON. *Purdue Univ., Washington & Lee Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 CCC80 **497.06** Behavioural and neurochemical effects on hippocampal noradrenergic neurotransmission caused by the lack of M4 muscarinic acetylcholine receptors in mice. A. FINK-JENSEN*; D. DENCKER; G. WÖRTWEIN; J. WESS; P. WEIKOP. *Lab. Neuropsychiatry, Psychiatric Ctr. Copenhagen and Univ. of Copenhagen, Dept. of Publ. Health, Univ. of Copenhagen, Mol. Signaling Section, Natl. Inst. of Diabetes and Digestive and Kidney Diseases, Natl. Inst. of Hlth.*
- 3:00 CCC81 **497.07** Hippocampal codes of space in the Fmr1-KO mouse model of Fragile X mental retardation. T. ARBAB*; R. WILLEMSSEN; C. M. A. PENNARTZ; F. P. BATTAGLIA. *Univ. of Amsterdam, Erasmus Med. Ctr.*
- 4:00 CCC82 **497.08** Activation of the mesolimbic dopaminergic system by high-frequency stimulation of the perforant pathway - a combined electrophysiological and fMRI study. C. HELBING*; G. WERNER; F. ANGENSTEIN. *Leibniz Inst. For Neurobio. Magdeburg, Deutsches Zentrum für Neurodegenerative Erkrankungen (DZNE).*
- 1:00 DDD1 **497.09** Characterizing the interactions between hippocampal theta generators by combining CSD and Granger Causality. D. KANG*; P. SWIATEK; M. DING; B. KOCSIS. *J. Crayton Pruitt Family Dept. of Biomed. Engin., Univ. of Florida, Dept. of Psychiatry at BIDMC, Harvard Med. Sch.*
- 2:00 DDD2 **497.10** Reactivation of neural ensembles during the retrieval of recent and remote memory. K. K. TAYLER*; K. Z. TANAKA; C. CHABANON-HICKS; B. FERGUSON; A. TAN; S. BACHARACH; B. GRIER; L. G. REIJMERS; B. J. WILTGEN. *Univ. of Virginia, Univ. of Virginia, Tufts Univ. Sch. of Med.*
- 3:00 DDD3 **497.11** A spike-based associative memory with strong-sparse and weak-dense Hebbian connections. N. HIRATANI*; J. TERAMAE; T. FUKAI. *RIKEN Brain Sci. Inst., Univ. of Tokyo.*
- 4:00 DDD4 **497.12** Enhancing the rescue effort: Effortful learning increases neurogenesis through an increase in cell survival. G. DIFEO*; D. M. CURLIK, II; T. J. SHORS. *Rutgers Univ.*
- 1:00 DDD5 **497.13** Time-lapse *in vivo* imaging of dendritic spine dynamics in hippocampal area CA1. J. E. FITZGERALD*; A. ATTARDO; M. J. SCHNITZER. *Stanford Univ., Stanford Univ., Howard Hughes Med. Inst., Stanford Univ.*
- 2:00 DDD6 **497.14** Place cell rate remapping in the hippocampus by CA3 collaterals. T. SOLSTAD*; H. YOUSIF; T. J. SEJNOWSKI. *CNL-S / Salk Inst., Univ. of California San Diego, Norwegian Univ. of Sci. and Technol.*
- 3:00 DDD7 **497.15** Context is encoded by distinct hippocampal circuits. M. E. WINTZER; R. BOEHRINGER; T. J. MCHUGH*. *RIKEN Brain Sci. Inst.*
- 4:00 DDD8 **497.16** Ketamine-induced behavioral impairments and alterations in hippocampal gabaergic neuron distribution. A. S. MURTISHAW*; J. J. SABBAGH; C. F. HEANEY; M. M. BOLTON; C. M. MAGCALAS; J. W. KINNEY. *UNLV Neurosci. Doctoral Student, UNLV.*
- 1:00 DDD9 **497.17** Distributed coding of sensory information by CA1 neurons in the hippocampus. A. K. DHAWALE*; M. N. MODI; U. S. BHALLA. *NCBS.*
- 2:00 DDD10 **497.18** ▲ Deep brain stimulation of entorhinal cortex enhances spatial memory in rats. R. NAJERA*; J. SIBI; A. LI; C. MCNABB; P. FUCHS; Y. B. PENG; H. PARK. *Univ. of Texas at Arlington.*
- 3:00 DDD11 **497.19** Novelty detection in the rat brain. M. MEETER*; A. SAMBETH; A. BLOKLAND. *VU Univ. Amsterdam, Maastricht Univ.*
- 4:00 DDD12 **497.20** ▲ Dissociable roles of the dorsal striatum and dorsal hippocampus in the performance of mnemonically distinct t-maze tasks. A. C. ARREOLA*; H. L. HALLOCK; C. L. SHAW; M. M. PATEL; S. M. AMOS; V. CHANDRASEKHAR; G. D. R. WATSON; A. L. GRIFFIN. *Univ. of Delaware.*
- 1:00 DDD13 **497.21** The caudal region of the perirhinal cortex is increasingly recruited in contextual fear memory acquired over distributed conditioning sessions. J. E. TAYLOR*; M. CROUGH; A. M. BOOKER; H. LEHMANN. *Trent Univ.*
- 2:00 DDD14 **497.22** ● Differential gamma activity related to correct spatial alternation in rat hippocampal CA1. J. M. LAUWEREYNS*; H. NISHIDA; G. BIRD; A. REDISH; M. TAKAHASHI. *Kyushu Univ., Univ. of Minnesota.*
- 3:00 DDD15 **497.23** ● Hippocampal control of median raphe activity during ripple oscillation: A new circuit for memory consolidation process? D. V. WANG*; S. IKEMOTO. *Natl. Inst. On Drug Abuse.*
- 4:00 DDD16 **497.24** Nonverbal transitive inference in pigeons: Effect of bilateral lesion of hippocampus. O. F. LAZAREVA*; K. KANDRAY; N. PILLAI; M. J. ACERBO. *Drake Univ., Univ. of Iowa.*
- 1:00 DDD17 **497.25** Colchicine lesions of the dentate gyrus severely disrupt rapid segregation of information from dissociated spatial frames on a rotating arena (Carousel). S. KUBIK*; J. SVOBODA; B. STUCHLIKOVA; H. BUCHTOVA; A. STUCHLIK. *Inst. of Physiol. Acad. of Sci. of the Czech Republic, v.v.i.*
- 2:00 DDD18 **497.26** Contrasting the amnesic effects of lesions and temporary inactivations of the hippocampus on context and spatial memory in the rat. G. A. SCOTT; D. SAUCIER; H. LEHMANN*. *Trent Univ., Univ. of Ontario Inst. of Technol.*
- 3:00 DDD19 **497.27** ● Encoding of reward-associated features in the ventral hippocampus during spatial learning. A. MANGANARO; J. O'NEILL; D. DUPRET; J. L. CSICSVARI*. *MRC ANU Univ. of Oxford, Inst. of Sci. and Technol.*
- 4:00 DDD20 **497.28** Hippocampal - prefrontal synchrony during switching between hippocampal dependent and independent tasks. K. G. GUISE*; M. L. SHAPIRO. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*
- 1:00 DDD21 **497.29** Interaction of subiculum and prefrontal cortex in spatial working memory. B. A. WORMWOOD; R. L. A. MILLER; K. D. ONOS; A. W. BLAKE; R. G. MAIR*. *Univ. New Hampshire.*
- 2:00 DDD22 **497.30** Parallel processing streams support dynamic contextual representations in CA1. J. Z. YOUNG*; A. L. LEMESSURIER; T. J. MCHUGH; T. NAKASHIBA; S. TONEGAWA. *MIT, MIT, Currently at RIKEN-Brain Sci. Inst.*

POSTER

498. Control of Reward-Seeking and Avoidance Behaviors

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 DDD23 **498.01** Reward related processes in BNST. S. MA*; D. J. BARKER; K. R. COFFEY; D. H. ROOT; S. C. JHA; T. PARTHASARATHI; V. DOBROVITSKY; J. C. HORVITZ; M. O. WEST. *Rutgers, The State Univ. of New Jersey, Natl. Inst. on Drug Abuse, City Col. of New York of the City Univ. of New York.*
- 2:00 DDD24 **498.02** Chronic stress alters cocaine-induced addictive behaviors in mice lacking dopamine D2 receptors. H. SIM*; H. LEE; S. CHOI; E. KANG; P. HAN; J. BAIK. *Sch. of Life Sci. and Biotechnology, Korea Univ., Seoul Natl. Univ. Sch. of Dent., Dept. of Neuroscience, Med. Res. Institute, Ewha Womans Univ. Sch. of Medicine, 110-783.*
- 3:00 DDD25 **498.03** Cocaine Addiction: Is it a habit? D. J. BARKER*; S. MA; D. H. ROOT; A. P. PAWLAK; K. R. COFFEY; A. T. FABBRICATORE; M. O. WEST. *Rutgers University, Rutgers Univ., Natl. Inst. on Drug Abuse.*
- 4:00 DDD26 **498.04** Accumbens dopamine encodes both incentive motivation and bidirectional reward prediction errors. A. HAMID*; C. VANDER WEELE; R. SCHMIDT; J. R. PETTIBONE; B. J. ARAGONA; J. D. BERKE. *Univ. of Michigan, University of Michigan.*
- 1:00 DDD27 **498.05** Imaging reward and motivation related dopamine uptake in the rat: An [18F]fluoro-dihydroxy-phenylalanine study. E. HOEFENER*; C. SCHÄFER; R. GRAF; B. NEUMAIER; H. BACKES; H. ENDEPOLS. *Max Planck Inst. For Neurolog. Res.*
- 2:00 DDD28 **498.06** The role of dorsolateral striatum neurons in skill learning and drug abuse. K. COFFEY*; D. J. BARKER; S. MA; A. PAWLAK; A. FABRICATORE; M. O. WEST. *Rutgers.*
- 3:00 DDD29 **498.07** Blockade of Hypocretin / Orexin 2 receptors does not reduce dopamine responses to cocaine. R. A. ESPAÑA*; A. R. RAU; S. R. JONES. *Drexel Univ. Col. of Med., Wake Forest Hlth. Sci.*
- 4:00 DDD30 **498.08** Mechanisms underlying BDNF mediation of mesolimbic dopamine and hedonic feeding. L. R. GAINEY*; M. SENA-ESTEVES; M. RIOS. *Tufts Univ., Univ. of Massachusetts Med. Sch.*
- 1:00 DDD31 **498.09** Role of dopamine D2 receptor on cocaine-induced behavioral sensitization in nucleus accumbens core. H. LEE*; E. JUNG; H. SIM; S. YOON; J. BAIK. *Korea Univ.*
- 2:00 DDD32 **498.10** Distinct roles for direct and indirect pathway striatal neurons in reinforcement and punishment. L. TYE*; A. KRAVITZ; A. KREITZER. *Gladstone Inst., Univ. of California San Francisco, Univ. of California San Francisco.*
- 3:00 DDD33 **498.11** Disrupting D2, but not D1, tone within the nucleus accumbens core impacts the rapid establishment of behavioral preferences resulting from unexpected reward omission. K. A. PORTER-STRANSKY*; J. L. SEILER; M. C. KLINGLER; B. J. ARAGONA. *Univ. of Michigan.*
- 4:00 DDD34 **498.12** Dopamine receptor antagonism reduces the opportunity cost at which rats maintain operant performance for rewarding brain stimulation. I. TRUJILLO-PISANTY*; K. CONOVER; P. SHIZGAL. *Concordia Univ.*
- 1:00 DDD35 **498.13** Input-specific control of reward and aversion in the ventral tegmental area. S. LAMMEL*; B. LIM; C. RAN; K. HUANG; K. TYE; K. DEISSEROTH; R. MALENKA. *Stanford Univ., MIT, Stanford Univ.*
- 2:00 DDD36 **498.14** D2 dopamine receptor interactions with AMPA receptors are more important to extended amygdala reward mechanism than D1-AMPA interactions. M. A. WARACZYNSKI*; M. STOEHR. *Univ. Wisconsin Whitewater, Univ. Wisconsin Whitewater.*
- 3:00 DDD37 **498.15** The influence of isolation rearing and social cues on cocaine-induced dopamine and serotonin in the nucleus accumbens. S. T. BLAND*; S. GROTEWOLD; V. WALL; C. HAYTER; A. BOWMAN; D. GOODELL. *Univ. of Colorado, Denver.*
- 4:00 DDD38 **498.16** Neural circuit mechanism for the computation of reward prediction error in the midbrain dopamine neurons. K. MORITA*; M. MORISHIMA; K. SAKAI; Y. KAWAGUCHI. *The Univ. of Tokyo, The Univ. of Tokyo, Natl. Inst. for Physiological Sci., Grad. Univ. for Advanced Studies (SOKENDAI), Japan Sci. and Technol. Agency, Core Res. for Evolutional Sci. and Technol. (CREST).*
- 1:00 DDD39 **498.17** Knockdown of dopamine D5 receptors within the hippocampus and its effect on cocaine reward. K. K. THIRTAMARA*; B. MARTIN; B. NAUGHTON; C. WANG; M. DURING; H. GU. *The Ohio State Univ., The OhioState Univ., The Ohio State Univ., The OhioState Univ.*
- 2:00 DDD40 **498.18** A galanin functional polymorphism modulates reward-related ventral striatum reactivity differentially in men and women. Y. S. NIKOLOVA*; E. K. SINGHI; A. R. HARIRI. *Duke Univ.*
- 3:00 DDD41 **498.19** Relationships among dopamine D2 receptors, reward, and eating pathology in obese and lean adults. D. M. GREDYSA; S. A. EISENSTEIN; J. V. ANTENOR-DORSEY; A. ARBELAEZ; J. M. KOLLER; K. J. BLACK; J. S. PERLMUTTER; S. M. MOERLEIN; A. RACINE; E. BIHUN; S. RANCK; T. HERSHEY*. *Washington Univ. Sch. of Med., Washington Univ. Sch. Med.*
- 4:00 DDD42 **498.20** ● Opposing actions of hypocretin (orexin) and dynorphin co-transmission on motivated behavior. J. W. MUSCHAMP*; J. A. HOLLANDER; J. L. THOMPSON; S. ONVANI; L. C. HASSINGER; T. M. KAMENECKA; S. L. BORGLAND; P. J. KENNY; W. A. CARLEZON, Jr. *Harvard Med. Sch., McLean Hosp., The Scripps Res. Inst., Univ. of British Columbia.*
- 1:00 DDD43 **498.21** Ghrelin dynamically modulates phasic dopamine signals evoked by food reward and food-predictive stimuli. J. J. CONE*; M. ROITMAN. *Univ. of Illinois at Chicago.*
- 2:00 DDD44 **498.22** Encoding of reward-related information in the VTA, modulation by feeding-hormones. G. VAN DER PLASSE*; R. VAN ZESSEN; M. C. M. LUIJENDIJK; H. ERKAN; G. M. J. RAMAKERS; R. A. H. ADAN. *Rudolf Magnus Inst.*
- 3:00 DDD45 **498.23** Genetic evidence that leptin modulates dopamine reward system function in humans. J. W. BUCKHOLTZ*; R. COWAN; J. BLACKFORD; M. TREADWAY; R. LI; M. ANSARI; R. BALDWIN; C. SMITH; R. KESSLER; D. ZALD. *Harvard Univ., Vanderbilt Univ.*
- 4:00 DDD46 **498.24** The vagus nerve links gut fat sensing to brain dopamine release. J. G. FERREIRA*; L. TELLEZ; S. J. SHAMMAH-LAGNADO; I. E. DE ARAUJO. *John B. Pierce Lab., Univ. de Sao Paulo.*

Mon. PM

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 DDD47 **498.25** What a shock: Endocannabinoids modulate nucleus accumbens neural encoding during negative reinforcement. E. B. OLESON*; V. CHIOMA; N. LOPATINA; J. F. CHEER. *Univ. of Maryland Sch. Med., Univ. of Maryland, Baltimore County.*
- 2:00 DDD48 **498.26** Dopamine transporter variants are linked to ventral striatum microstructure in children and adolescents. K. S. MADSEN*; W. F. C. BAARÉ; A. J. SCHORK; C. BLOSS; S. S. MURRAY; A. SKIMMINGE; A. M. DALE; N. J. SCHORK; T. L. JERNIGAN. *Danish Res. Ctr. For Magnetic Resonance, Copenhagen Univ. Hosp., Ctr. for Integrated Mol. Brain Imaging, Copenhagen Univ. Hosp., UCSF, Scripps Translational Sci. Inst.*
- 3:00 DDD49 **498.27** What a shock: Subsecond dopamine release encodes conditioned cues during negative reinforcement. R. N. GENTRY*; E. B. OLESON; J. F. CHEER. *Univ. of Maryland.*
- 4:00 DDD50 **498.28** Menstrual cycle dependent fluctuations in steroid levels affect neural activity during the anticipation of reward and punishment. J. BAYER*; P. BANDURSKI; T. SOMMER. *Univ. Med. Ctr. Hamburg Eppendorf.*
- 1:00 DDD51 **498.29** Loss aversion is under the control of dopaminergic signaling. A. DAGHER*; C. ERICKSON; S. COX; M. LEYTON; J. WAGNER; M. J. FRANK; K. LARCHER. *McGill Univ., Montreal Neurolog. Inst., Brown Univ.*
- 2:00 DDD52 **498.30** Devaluation of ethanol reward in ethanol-dependent and non-dependent C57BL/6J mice. M. F. LOPEZ*; L. A. RALSTON; R. E. SEE; L. J. CHANDLER. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*
- 2:00 DDD58 **499.06** The contribution of the amygdala to stimulus-reward learning in rhesus macaques: a behavioral and autonomic analysis. P. H. RUDEBECK*; J. A. RIPPPE; A. R. MITZ; E. A. MURRAY. *Natl. Inst. of Mental Hlth.*
- 3:00 DDD59 **499.07** Neural activity in medial prefrontal cortex during performance of a go-nogo task. A. A. AMAYA*; S. R. EBNER; M. S. MCMURRAY; J. D. ROITMAN. *Univ. of Illinois At Chicago.*
- 4:00 DDD60 **499.08** Phasic dopamine recordings and behavioral pharmacology reveal differential roles for nucleus accumbens inputs in reward prediction and action selection. S. R. EBNER*; J. D. ROITMAN; A. A. AMAYA; M. F. ROITMAN. *Univ. of Illinois At Chicago.*
- 1:00 DDD61 **499.09** Signals projected from the centromedian nucleus of thalamus to the putamen during reward-based action selection in monkey. K. YAMANAKA*; M. KIMURA. *Tamagawa Univ. Brain Sci. Inst.*
- 2:00 DDD62 **499.10** Prelimbic prefrontal cortical mechanisms of cocaine-induced stimulus-response decision-making. M. G. WHEELER; C. GROSS; G. J. BASSELL; S. L. GOURLEY*. *Emory Univ., Yerkes Natl. Primate Res. Ctr., Emory Univ., Emory Univ., Emory Sch. of Med.*
- 3:00 DDD63 **499.11** Competition between different action value signals in supplementary eye field during value-based decision making. X. CHEN*; S. MIHALAS; V. STUPHORN. *Zanvyl Krieger Mind/Brain Inst., Allen Inst. for Brain Sci., Zanvyl Krieger Mind/Brain Inst.*
- 4:00 DDD64 **499.12** In monkeys performing a value-based decision task, LIP neurons encode cue salience and not action value. M. L. LEATHERS*; C. R. OLSON. *Ctr. for the Neural Basis of Cognition, Carnegie Mellon Univ., Univ. of Pittsburgh.*
- 1:00 DDD65 **499.13** Cell types in the orbitofrontal cortex and their contribution to economic choice. C. PADDOA-SCHIOPPA*; X. CAI. *Washington Univ.*
- 2:00 DDD66 **499.14** Disconnecting the orbitofrontal cortex and subthalamic nucleus does not significantly alter impulsive decision-making on a delay discounting task. J. N. FERLAND*; P. J. COCKER; F. D. ZEEB; J. G. HOSKING; L. COQUE; C. BAUNEZ; C. A. WINSTANLEY. *Univ. of British Columbia, Univ. of Toronto, Univ. de Provence Marseille.*
- 3:00 DDD67 **499.15** ▲ Effects of morphine on delay discounting in rats: Interactions with order of delay presentation. C. HENSON; D. R. MAGUIRE; W. KOEK*; C. P. FRANCE. *Univ. Texas Hlth. Sci. Ctr., Univ. Texas Hlth. Sci. Ctr.*
- 4:00 DDD68 **499.16** Cocaine-Induced impulsivity is curtailed by CB1 receptor blockade: Rapid dopaminergic correlates. G. A. HERNANDEZ*; E. OLESON; R. GENTRY; D. BERNSTEIN; J. F. CHEER. *Univ. of Maryland.*
- 1:00 DDD69 **499.17** Atomoxetine effects on risk-related decision making in rats depends upon baseline performance characteristics. J. WOODS*; J. R. ASHENHURST; J. D. JENTSCH. *UCLA Psychology-Behavioral Neurosci., Univ. of California.*
- 2:00 DDD70 **499.18** Effects of acute administration of drugs targeting serotonergic neurotransmission in a rat model of risky decision-making. B. SETLOW*; M. R. MITCHELL; K. VERA; V. G. WEISS. *Univ. of Florida.*

POSTER

499. Decision Making: Neurocircuitry and Neuropharmacology

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 DDD53 **499.01** Analysis of the participation of rostradorsal portion of the periaqueductal gray in behavioral inhibition after cat exposure. M. H. SUKIKARA*; C. R. TEIXEIRA; L. F. FELICIO; N. S. CANTERAS; S. R. MOTA-ORTIZ. *Univ. Cidade De São Paulo, City Univ. of São Paulo, Univ. of São Paulo, Univ. of São Paulo.*
- 2:00 DDD54 **499.02** Basolateral amygdala lesions inhibit reversal learning on a 4-choice odor discrimination task. F. A. LOUCKS*; L. WILBRECHT; P. H. JANAK. *UCSF Neurosci. Grad. Program, Ernest Gallo Clin. and Res. Ctr.*
- 3:00 DDD55 **499.03** Behavioural decision making is mediated by a novel interneuron bridging feeding and withdrawal neuronal networks in *Lymnaea*. Z. PIRGER*; I. KEMENES; Z. LASZLO; G. KEMENES; P. R. BENJAMIN; M. O'SHEA. *Univ. of Sussex.*
- 4:00 DDD56 **499.04** Sign-tracking and goal-tracking by a reinforcement learning model. S. R. KAVERI*; A. R. KOENE; S. LAQUITAINE; H. NAKAHARA. *RIKEN Brain Sci. Inst., Tokyo Inst. of Technol.*
- 1:00 DDD57 **499.05** Influence of reward uncertainty on neural cue responses in the amygdala. J. Z. CHADICK*; P. H. JANAK. *Ernest Gallo Clin. and Res. Center, UCSF, Univ. of California, San Francisco.*

- 3:00 DDD71 **499.19** Adolescent risk taking, dopamine signaling, and cocaine self-administration: A vicious cycle. M. R. MITCHELL*; V. G. WEISS; D. MORGAN; J. L. BIZON; B. SETLOW. *Univ. of Florida, Col. of Med., Univ. of Florida, Col. of Med., Univ. of Florida, Col. of Med.*
- 4:00 DDD72 **499.20** High cocaine intake causes long-lasting elevations in impulsive choice in a delay discounting task. V. WEISS*. *Univ. of Kentucky.*
- 1:00 DDD73 **499.21** Decision making and the 5-HT system. P. FAULKNER*; S. SELVARAJ; Q. HUYS; A. PINE; O. HOWES; J. P. ROISER. *Univ. Col. London, Imperial Col. London, Univ. Col. London, Univ. Col. London, Univ. Col. London.*
- 2:00 DDD74 **499.22** The role of dopamine in anterior insular and orbitofrontal cortex in risky decision making. H. ISHII*; S. OHARA; P. N. TOBLER; K. TSUTSUI; T. IJIMA. *Tohoku university, Lab. for social and neural systems research, Univ. of Zurich.*
- 3:00 DDD75 **499.23** The uncompetitive NMDA receptor antagonists ketamine and memantine preferentially increase the choice for a small, immediate reward in low-impulsive rats. P. COTTONE*; A. R. NARAYAN; J. KWAK; V. SABINO. *Boston Univ. Sch. of Med.*
- 4:00 DDD76 **499.24** Delay discounting of food and remifentanyl in rhesus monkeys. D. R. MAGUIRE; L. R. GERAU; C. P. FRANCE*. *Univ. Texas Hlth. Sci. Ctr., Univ. Texas Hlth. Sci. Ctr.*
- 1:00 DDD77 **499.25** Serotonin transporter genotype modulates temporal discounting of monetary rewards in humans. C. HARTLEY*; J. W. KANEN; M. C. MCKENNA; B. J. CASEY; J. W. KABLE; E. A. PHELPS; C. E. GLATT. *Sackler Inst. For Developmental Psychobiology, Weill Cornell Med. Col., New York Univ., Weill Cornell Med. Col., Weill Cornell Med. Col., Univ. of Pennsylvania, Weill Cornell Med. Col.*
- 2:00 DDD78 **499.26** Alcohol increases attention to recent outcomes and inconsistency during decision-making in the Iowa Gambling Task. A. GUEVARA*; D. SCHMIDT; G. GAN; N. B. KROEMER; U. ZIMMERMANN; M. N. SMOLKA. *Technische Univ. Dresden.*
- 3:00 DDD79 **499.27** Decision-making neurons for feeding behavior revealed by genetic activation in *Drosophila*. S. IGUCHI; M. GORCZYCA; M. YOSHIHARA*. *Univ. of Massachusetts Med. Sch.*

POSTER

500. Neuroethology: Other

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 DDD80 **500.01** The animal models and model animals debates in neuroscience: A comparative analysis. J. S. ROBERT*. *Arizona State Univ.*
- 2:00 DDD81 **500.02** ▲ Three distinct forms of domic (self-touching) movements characterized by hand shape. K. MORAYKO*; J. M. KARL; I. Q. WHISHAW. *Univ. of Lethbridge.*

- 3:00 DDD82 **500.03** Early social rearing experience affects the mirror neurons system activity measured with EEG during the observation of facial gestures in 3-day-old rhesus macaques. P. F. FERRARI*; R. E. VANDERWERT; A. PAUKNER; S. BOWER; S. J. SUOMI; N. A. FOX. *Univ. Parma, Univ. of Maryland, NIH.*
- 4:00 DDD83 **500.04** Partner preference in an animal model of sex chromosome trisomies. T. NGUN*; N. M. GHAMRANI; H. BARSEGHYAN; M. CREEK; Y. ITOH; F. J. SÁNCHEZ; R. MCCLUSKY; S. WILLIAMS; F. AVANESYAN; J. SINSHEIMER; A. P. ARNOLD; E. VILAIN. *UCLA, UCLA, UCLA.*
- 1:00 DDD84 **500.05** ● Functional mri in awake unrestrained dogs. G. S. BERNIS*; A. M. BROOKS; M. SPIVAK. *Emory Univ., Comprehensive Pet Therapy.*
- 2:00 EEE1 **500.06** Gabapentin restores social deficit induced by ovariectomy in female rats. E. SHEKUNOVA*; I. BELOZERTSEVA. *Pavlov State Medical University.*
- 3:00 EEE2 **500.07** STP tomography-based mapping of the complete brain circuit mediating social behavior in the mouse. Y. KIM*; K. UMADEVI VENKATARAJU; K. PRADHAN; S. C. TURAGA; I. ARGANDA-CARRERAS; L. NG; M. J. HAWRYLYCZ; H. S. SEUNG; P. OSTEN. *Cold Spring Harbor Lab., MIT, Allen Inst. for Brain Sci.*
- 4:00 EEE3 **500.08** HVC-targeted forebrain lesions result in non-selective responses to song and increased egg laying in female cowbirds. W. MAYES*; G. F. BALL; M. F. SCHMIDT; D. J. WHITE. *Johns Hopkins Univ., Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 1:00 EEE4 **500.09** Lower brain levels of serotonin in rainbow trout larvae with a propensity for social dominance. E. HÖGLUND*; M. Å. ANDERSSON. *Tech. Univ. of Denmark.*
- 2:00 EEE5 **500.10** ▲ Exploring group learning in danio rerio. K. M. KHAN; E. M. DOYLE; J. E. RISINGER; C. R. HEYDUK; T. J. GEIER; A. M. PETZOLD; R. L. DUNBAR*. *Univ. of Minnesota Rochester, Univ. of Minnesota Rochester.*
- 3:00 EEE6 **500.11** ▲ Exploratory behaviour in planaria (*Dugesia dorotocephala*): Effects of solitary and social housing. C. NUSSEY; A. CARLSON; Z. MANDLSOHN; A. STILLAR; A. WEEKS; M. J. SAARI*. *Nipissing Univ.*
- 4:00 EEE7 **500.12** Mechanisms of collective behavior in *Drosophila melanogaster*. P. RAMDYA*; T. SCHAFFTER; P. LICHOCKI; L. FRISCH; W. TSE; D. FLOREANO; R. BENTON. *UNIL, EPFL.*
- 1:00 EEE8 **500.13** Sleep intensity in *Drosophila*. B. VAN ALPHEN*; L. KIRSZENBLAT; B. VAN SWINDEREN. *The Queensland Brain Inst.*
- 2:00 EEE9 **500.14** Brain structure and division of labor in ants: the neuroecology of social complexity. J. F. KAMHI*; Y. M. GIRALDO; C. WALKER; E. PATEL; J. F. A. TRANIELLO. *Boston Univ.*
- 3:00 EEE10 **500.15** Effect of enriched environment on adult neurogenesis in turtles (*Chrysemys picta*). A. S. POWERS*; B. HANUSCH. *SUNY Stony Brook, Stony Brook Univ.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

501. Neuroethology: Sensory Systems I

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 EEE11 **501.01** The taste of love: The role of gustatory-like pathways in sexual behaviors. Y. BEN-SHAHAR*; B. LU. *Washington Univ., Washington Univ.*
- 2:00 EEE12 **501.02** Post-stimulus firing and the corresponding olfactory search strategy. N. VOGES*; A. CHAFFIOL; L. BUHRY; P. LUCAS; D. MARTINEZ. *LORIA - INRIA/CNRS, INRA, The Ohio State Univ. Col. of Med.*
- 3:00 EEE13 **501.03** Is afferent sensory information required for development of central input and processing regions of the insect olfactory system in the ant *Pheidole dentata*? M. L. MUSCEDERE*; H. WAXMAN; J. F. A. TRANIELLO. *Boston Univ., Boston Univ., Boston Univ.*
- 4:00 EEE14 **501.04** Collision avoidance behaviour in a pair of flying locusts (*Locusta migratoria* L.). J. GRAY*; I. BENARAGAMA. *Univ. Saskatchewan.*
- 1:00 EEE15 **501.05** *Drosophila* track CO₂ in flight. S. M. WASSERMAN*; D. W. MALKIN; M. FRYE*. *Howard Hughes Med. Institute/UCLA, UCLA.*
- 2:00 EEE16 **501.06** Distinct role of identified giant interneurons in directional control of wind-evoked walking behavior in the cricke. H. OGAWA*; M. OE. *Hokkaido Univ., JST, Hokkaido Univ.*
- 3:00 EEE17 **501.07** Assessing house cricket light sensitivity using preferences and classical conditioning. W. L. ISAAC*; L. N. BAER; W. C. ALLEN; J. B. EDWARDS; K. D. TOUTKOUSHIAN; C. N. DAVIS. *Georgia Col. & State Univ.*
- 4:00 EEE18 **501.08** What is it like to be a lizard? Gaze duration and the flow of sensory experience in birds and reptiles. L. N. IRWIN*. *Univ. Texas at El Paso.*
- 1:00 EEE19 **501.09** Rapid effects of estradiol on retinal sensitivity in male goldfish. R. R. THOMPSON*; R. SCHWEMBERGER; D. MICHAUD; P. S. DICKINSON. *Bowdoin Col., Bowdoin Col.*
- 2:00 EEE20 **501.10** Study of electric and motor behavior in weakly electric fish, *Gymnotus carapo* and *Gnathonemus petersii*, using Information Theory tools. C. G. FORLIM; L. O. B. ALMEIDA; P. VARONA; F. RODRIGUEZ; R. D. PINTO*. *Inst. de Física da Univ. de Sao Paulo, Inst. Física De Sao Carlos - Univ. Sao Paulo, Univ. Autonoma de Madrid.*
- 3:00 EEE21 **501.11** Direction selective sensory neurons in weakly electric fishes respond to very low frequencies. E. D. TYTELL*; S. A. STAMPER; N. J. COWAN; E. S. FORTUNE. *Johns Hopkins Univ., Johns Hopkins Univ.*
- 4:00 EEE22 **501.12** Social envelope responses in *Eigenmannia* and *Apteronotus*. S. A. STAMPER*; M. S. MADHAV; N. J. COWAN; E. S. FORTUNE. *Johns Hopkins Univ., Johns Hopkins Univ., New Jersey Inst. of Technol.*
- 1:00 EEE23 **501.13** Serotonin differentially affects coding of information in 'on' and 'off' neurons in the weakly electric fish. T. DEEMYAD*; M. CHACRON. *Howard Hughes Med. Institute/Janelia Farm, McGill Univ.*
- 2:00 EEE24 **501.14** Serotonin and neuropeptides interact to modulate aversive responses in *Caenorhabditis elegans*. H. J. MILLS*; A. C. KORCHNAK; V. M. HAPIAK; R. W. KOMUNIECKI. *Univ. of Toledo, Univ. of Toledo.*

- 3:00 EEE25 **501.15** Acute and tonic glutamatergic signaling modulates sensory-mediated aversive responses in *Caenorhabditis elegans*. P. SUMMERS*; A. KORCHNAK; B. BAMBER; R. KOMUNIECKI. *Univ. of Toledo.*
- 4:00 EEE26 **501.16** Uncovering the molecular and cellular basis for hygrosensation with *c. elegans*. J. RUSSELL*; J. PIERCE-SHIMOMURA. *Univ. of Texas At Austin.*
- 1:00 EEE27 **501.17** Magnetotactic behavior in a nematode. A. G. VIDAL GADEA*; K. A. WARD; J. T. PIERCE-SHIMOMURA. *The Univ. of Texas At Austin.*
- 2:00 EEE28 **501.18** • Sensory interaction between diacetyl and nonanone in *c. elegans*. T. MATSUURA*; J. IZUMI; M. HIOKI; H. NAGAYA; Y. KOBAYASHI; M. ICHINOSE. *Iwate Univ., Fac Engin.*
- 3:00 EEE29 **501.19** Potential role for *skn-1* in *Caenorhabditis elegans* behavioral responses to environmental chemicals. M. A. WILSON; W. ISER; T. G. SON; A. LOGIE; M. P. MATTSON; S. CAMANDOLA*. *NIA, Dongnam Inst. of Radiological and Med. Sci.*
- 4:00 EEE30 **501.20** Sensory guidance of locomotor behavior in the medicinal leech. C. M. HARLEY*; M. ROSSI; J. CIENFUEGOS; D. A. WAGENAAR; K. A. MESCE. *Univ. of Minnesota, Caltech, Caltech.*
- 1:00 EEE31 **501.21** A comparison of central and peripheral effects of TRPV and TRPA activators and antagonists in the leech. T. L. RASMUSSEN*; B. BURRELL. *Univ. of South Dakota.*

POSTER

502. Neuroethology: Sensory Systems II

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 EEE32 **502.01** Investigation of neural circuits related to acoustic startle response and prepulse inhibition using behavioral positron-emission-tomography. C. ROHLDER*; F. M. LEWEKE; R. GRAF; H. ENDEPOLS. *Central Inst. of Mental Health, Med. Fac. Mannheim, Heidelberg Univers, Max Planck Inst. for Neurolog. Res.*
- 2:00 EEE33 **502.02** Low-invasive way to inactivate neural activities of the primary auditory cortex by transcranial near-infrared laser irradiation. N. AKIYAMA*; K. I. KOBAYASHI; H. RIQUIMAROUX. *Doshisha Univ., Doshisha Univ.*
- 3:00 EEE34 **502.03** Which acoustic characteristics determine individuality of Coo calls of Japanese macaques? T. FURUYAMA*; K. I. KOBAYASHI; H. RIQUIMAROUX. *Doshisha Univ., Doshisha.*
- 4:00 EEE35 **502.04** Is Mismatch negativity related to categorical perception in species-specific communication sounds of Mongolian gerbils? Y. TORIGOE*; K. I. KOBAYASHI; H. RIQUIMAROUX. *Doshisha Univ., Doshisha Univ.*
- 1:00 EEE36 **502.05** Structural characteristics and functions of inner ear examined by cochlear microphonics in Mongolian gerbils, *Meriones unguiculatus*. S. BOKU*; K. FUKUSHIMA; K. I. KOBAYASHI; A. M. SIMMONS; J. A. SIMMONS; H. RIQUIMAROUX. *Doshisha Univ., Doshisha Univ., Brown Univ.*
- 2:00 EEE37 **502.06** Neuronal responses to conspecifics and social facial touch in the perirhinal cortex. R. P. RAO*; E. BOBROV; M. BRECHT. *Bernstein Ctr. For Computat. Neurosci.*

- 3:00 EEE38 **502.07** Mechanistic basis and functional roles of long-term plasticity in auditory neurons induced by a brain-generated estrogen. L. A. TREMER; R. F. KOVALESKI; K. BURROWS; J. K. JEONG; R. PINAUD*. *Northwestern Univ., Yale Univ.*
- 4:00 EEE39 **502.08** Sound reception in crabs: Keeping an ear to the ground and a leg in the wind. M. J. WALTZ*; J. H. BELANGER. *West Virginia Univ., West Virginia Univ.*
- 1:00 EEE40 **502.09** Physiological and anatomical differentiation of the inferior colliculus in the two species of gray treefrogs, *H. chrysoscelis* and *H. versicolor*. S. E. ODOM*; C. J. LEARY; J. A. GRAHAM; G. A. VASQUEZ-OPAZO; G. J. ROSE. *Univ. of Utah, Univ. of Mississippi.*
- 2:00 EEE41 **502.10** Frequency proximity as an auditory grouping cue in Cope's gray treefrogs (*Hyla chrysoscelis*). K. M. SCHRODE*; M. A. BEE. *Univ. of Minnesota, Univ. of Minnesota.*
- 3:00 EEE42 **502.11** Electrophysiological characterization of neuronal cell types and potassium conductances responsible for phasic firing in the Caudomedial Nidopallium (NCM) of zebra finches. A. L. A. DAGOSTIN; C. V. MELLO; R. M. LEAO*. *Univerisity of São Paulo, Oregon Hlth. and Sci. Univ.*
- 4:00 EEE43 **502.12** ● Developmental cannabinoid treatment persistently alters axonal NF-200 and dendritic MAP2 expression in telencephalic regions important to vocal learning. M. T. GILBERT*; K. SODERSTROM. *Brody Sch. of Med.*
- 1:00 EEE44 **502.13** Neural correlates of tutor song selectivity in the auditory midbrain during zebra finch song development: A longitudinal pilot study using functional MRI. L. VAN RUIJSSEVELT; A. M. VAN DER KANT; G. DE GROOF; A. VAN DER LINDEN*. *Univ. of Antwerp.*
- 2:00 EEE45 **502.14** Lateralized neural responses and functional connectivity in the visual system of awake trained pigeons. E. JONCKERS*; G. DE GROOF; O. GÜNTÜRKÜN; P. DENOLF; A. VAN DER LINDEN. *Bio-Imaging Lab, Univ. of Antwerp, Inst. of Cognitive Neuroscience, Ruhr-University Bochum.*
- 3:00 EEE46 **502.15** ● ▲ Detection of magnetic field inclination by homing pigeons in a novel conditioning paradigm. M. L. ACERBI*; V. P. BINGMAN; C. V. MORA. *Bowling Green State Univ.*
- 4:00 EEE47 **502.16** ● Conditioned detection of magnetic field intensity slope direction by homing pigeons in a novel "virtual magnetic map" task. C. V. MORA*; V. P. BINGMAN. *Bowling Green State Univ.*
- 1:00 EEE48 **502.17** Bilateral lesion of nucleus subpretectalis/ interstitio-pretecto-subpretectalis (SP/IPS) selectively impairs figure-ground discrimination in pigeons. M. J. ACERBO*; O. F. LAZAREVA; E. SCULLY; K. GOODWIN. *Univ. of Iowa, Drake Univ.*

POSTER

503. Neuroethology: Seasonal and Sex Differences

Theme F: Cognition and Behavior

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 EEE49 **503.01** Seasonal, hormonal and behavioral determinants of medial and dorsal cortex volume and neurogenesis in the Western Fence Lizard, *Sceloporus occidentalis*. D. R. PFAU*; S. S. FRENCH; C. STRAND. *California Polytechnic State University, San Luis Obispo, Utah State Univ.*

- 2:00 EEE50 **503.02** ▲ Vesicular glutamate transporter 2 expression is sexually dimorphic in the zebra finch hippocampus. Y. V. MAKEYEVA; T. C. MENDEZ; N. L. THERN; C. J. SALDANHA; D. J. BAILEY*. *St. Norbert Col., American Univ.*
- 3:00 EEE51 **503.03** Seasonal differences in hippocampus volume in a scatter-hoarding Corvid, the blue jay. K. L. GOULD*; R. M. BRANTNER; K. E. ROBERTS; T. J. DEVOOGD. *Luther Col., Cornell Univ.*
- 4:00 EEE52 **503.04** Rapid changes in neuronal recruitment, apoptosis, and behavior during seasonal regression of the avian song control system. T. LARSON*; N. THATRA; E. BRENOWITZ. *Univ. of Washington, Seattle.*
- 1:00 EEE53 **503.05** Exploring gender differences in dopamine neuron physiology, connectivity, and behavior. A. CHUNG*; L. S. ZWEIFEL. *Univ. of Washington, Univ. of Washington.*
- 2:00 EEE54 **503.06** Seasonal changes in selectivity for individual male song in a female songbird basal ganglia nucleus. G. DE GROOF*; C. POIRIER; I. GEORGE; M. HAUSBERGER; A. VAN DER LINDEN. *Univ. of Antwerp, Univ. Rennes 1.*
- 3:00 EEE55 **503.07** Effects of breeding condition and sex on volume and FoxP2 expression in the song control system of black-capped chickadees (*Parus atricapillus*). L. S. PHILLMORE*; H. L. MACGILLIVRAY; S. MARTIN; S. P. ROACH; K. R. WILSON. *Dalhousie Univ., Dalhousie Univ.*
- 4:00 EEE56 **503.08** Estradiol selectively enhances auditory function in monotonically driven forebrain neurons. M. L. CARAS*; E. BRENOWITZ; E. W. RUBEL. *Univ. of Washington, Univ. of Washington, Univ. of Washington.*
- 1:00 EEE57 **503.09** Effects of photoperiod and social context on song and doublecortin expression in the HVC of canaries. B. A. ALWARD*; T. J. STEVENSON; K. Y. PENG; M. L. ROUSE; W. D. MAYES; J. BALTHAZART; G. F. BALL. *The Johns Hopkins Univ., Univ. of Liege.*
- 2:00 EEE58 **503.10** Testosterone induced singing in Adult Female Canaries: Modulation of N-Methyl-D-Aspartate receptor subunit expression in relation to male-like singing behavior. M. L. ROUSE, JR*; S. DANGELMAJER; G. F. BALL. *The Johns Hopkins Univ.*
- 3:00 EEE59 **503.11** Consummatory sexual behavior induces Fos expression in serotonergic cell groups of male Japanese quail. O. IYILIKCI*; S. BAXTER; A. PODLISKY; J. BALTHAZART; G. F. BALL*. *Johns Hopkins Univ., Univ. of Liege.*

POSTER

504. Novel Electrophysiological Methods III

Theme G: Novel Methods and Technology Development

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 EEE60 **504.01** An immobilization method for biosensors with preserved enzyme specificity: Consequences for glutamate detection in the central nervous system. S. MARINESCO*; C. MAUCLER; T. LIEUTAUD; D. BARBIER; N. VASYLIEVA. *INSERM U628-UCB Lyon I, Inst. de nanotechnologies de Lyon, INSA.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 EEE61 **504.02** How many cortical neurons contribute to epidural EEG? B. TELENZUK*; S. N. BAKER; R. KEMPTER; G. CURIO. *Unité de Neurosciences, Information & Complexité, CNRS, Charité - Universitätsmedizin Berlin, Inst. of Neuroscience, Newcastle Univ., Dept. of Biology, Humboldt-Universität zu Berlin.*
- 3:00 EEE62 **504.03** ▲ Electrocoricography of face and place specificity during visual naming. C. R. CONNER*; C. M. KADIPASAOGLU; T. A. PIETERS; N. TANDON. *UT Houston, UT Houston.*
- 4:00 EEE63 **504.04** Event-related oscillatory coupling between theta and high gamma during stimulus and response processing forms two transient cortical clusters during motor performance. S. DÜRSCHMID*; H. HINRICHS; F. QUANDT; C. REICHERT; U. M. KRÄMER; R. T. KNIGHT; E. F. CHANG; N. CRONE; J. W. RIEGER. *Otto-von-Guericke Univ. Magdeburg, Universitätsklinikum Schleswig-Holstein, Univ. of California, Univ. of California, Johns Hopkins Med. Institutions, Carl-von-Ossietzky Univ.*
- 1:00 EEE64 **504.05** Microdrive assembly for chronic tetrode recording in conjunction with optogenetic stimulation and intracranial drug infusion. R. M. DE GUZMAN*; H. T. BLAIR. *UCLA Psychology Dept.*
- 2:00 EEE65 **504.06** Automated intracellular recording (AIR) system for multicellular recording *in vivo*. K. OTA*; T. MATSUMOTO; Y. YAZAKI-SUGIYAMA; T. SUZUKI; A. KAMOSHIDA; M. MURAYAMA. *RIKEN BSI, Natl. Instruments Japan Corp.*
- 3:00 EEE66 **504.07** ▲ Intracortical probe arrays with silicon backbone and microelectrodes on thin polyimide wings. Y. LEE; D. MOSER; T. HOLZHAMMER; U. P. FRORIEP; A. KILIAS; U. EGERT; W. FANG; O. PAUL; P. RUTHER*. *Univ. of Freiburg, Natl. Tsing Hua Univ., Univ. of Freiburg, Univ. of Freiburg, Natl. Tsing Hua Univ.*
- 4:00 EEE67 **504.08** Simultaneous recording of unitary activities from dentate gyrus, CA3 and CA1 regions of the hippocampus in behaving rats with a customized multi-electrode array. H. XU*; M. C. HSIAO; D. SONG; T. W. BERGER. *USC.*
- 1:00 EEE68 **504.09** Multifunctional biochip for simultaneous, real-time measurement of adhesion and electrical activity of neurons in culture. M. KHRAICHE; J. MUTHUSWAMY*. *Arizona State Univ.*
- 2:00 EEE69 **504.10** Hybrid MEG-MRI for improved workflow and accurate coregistration. K. C. J. ZEVENHOVEN; J. DABEK; J. O. NIEMINEN; P. T. VESANEN; S. ALANKO; A. V. ZHDANOV; J. LUOMAHARA; Y. HSU; F. LIN; J. PENTTILÄ; J. P. MÄKELÄ; L. T. PARKKONEN; J. HASSEL; J. SIMOLA; A. I. AHONEN; R. J. ILMONIEMI*. *Aalto Univ., VTT Tech. Res. Ctr. of Finland, Aivon Oy, Helsinki Univ. Central Hosp., Elekta Oy.*
- 3:00 EEE70 **504.11** Multi-site electrical stimulation integrated on 4'096 high density micro electrode arrays (MEAs) reveals the effective connectivity of dissociated neuronal cultures. A. MACCIONE*; T. NIEUS; A. SIMI; H. AMIN; L. BERDONDINI. *Inst. Italiano Di Tecnologia.*
- 4:00 EEE71 **504.12** ● High-throughput microelectrodes arrays for network electrophysiology. J. ROSS*; S. RAJARAMAN. *Axion Biosystems, Inc., Axion Biosystems.*
- 1:00 EEE72 **504.13** Direct rectifying inductive stimulation for energy-efficient wireless neural interfaces. S. HA; M. KHRAICHE; G. SILVA; G. CAUWENBERGHS*. *UCSD, UCSD, UCSD.*
- 2:00 EEE73 **504.14** ● The brainstar project: Towards a miniaturized microsystem for wireless brain stimulation and recording in rodents. S. MUSA¹, D. PRODANOV¹, M. WELKENHUYSEN¹, K. VAN KUYCK², W. VANACKEN⁴, K. TAHON⁵, A. RAES³, R. VANPLANCKE⁵, A. ANDREI¹, A. AHNAOU⁵, J. VANFLETEREN⁶, B. NUTIN², Y. GEERTS⁴, W. H. DRINKENBURG⁵, *D. K. BALSCHUN³, W. EBERLE¹; ¹IMEC vzw, Leuven, Belgium; ²Lab. of Exptl. Neurosurg. and Neuroanatomy, ³Lab. of Biol. Psychology, Katholieke Univ. Leuven, Leuven, Belgium; ⁴ICsense, Leuven, Belgium; ⁵CNS Neurosci., Janssen Pharmaceutica NV, Beerse, Belgium; ⁶Ctr. for Microsystems Technol., Ghent Univ., Ghent, Belgium
- 3:00 EEE74 **504.15** Long-term stability of neural patterns in songbirds revealed by carbon fiber electrode arrays. W. A. LIBERTI*, III; G. GUITCHOUNTS; J. E. MARKOWITZ; T. J. GARDNER. *Boston Univ., Boston Univ.*
- 4:00 EEE75 **504.16** Unit recording capability of a PEDOT-IL coated ultra-low impedance electrode. Z. DU*; X. LUO; C. WEAVER; X. T. CUI. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Qingdao Univ. of Sci. and Technol.*
- 1:00 EEE76 **504.17** ▲ Multiband coherence and structural connectivity correlate with information flow during language processes in humans. C. M. KADIPASAOGLU*; C. R. CONNER; K. FORSETH; N. TANDON. *Univ. of Texas Med. Sch. At Houston, UT Houston, Rice Univ., UT Houston.*
- 2:00 EEE77 **504.18** Combinational effects of tDCS and ultrasound on excised rat brain. D. W. GULICK*; B. C. TOWE. *Arizona State Univ.*
- 3:00 EEE78 **504.19** Optical neural recording based on surface plasmon resonance phenomena. S. KIM; S. JUN*; S. KIM. *Georgia Inst. of Technol., Seoul Natl. Univ., Ewha Womans Univ.*
- 4:00 EEE79 **504.20** ● Evaluation of multi-well microelectrode arrays for neurotoxicity screening using a chemical training set. E. MCCONNELL; J. ROSS; M. A. MCCLAIN*; W. R. LEFEW; T. J. SHAFER. *Axion Biosystems, Axion Biosystems, U.S. Envrm. Protection Agency.*

POSTER

505. Novel Electrophysiological Methods IV

Theme G: Novel Methods and Technology Development

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 EEE80 **505.01** ▲ Auditory steady state response in free field conditions: A useful approach for assessing hearing. H. HERNANDEZ*; A. TORRES. *Cuban Neurosci. Ctr., Cuban Neurosci. Ctr.*
- 2:00 EEE81 **505.02** Acute brain slice preparation method from old rodents. S. HUANG*; M. Y. UUSISAARI. *Okinawa Inst. of Sci. and Technol., Okinawa Inst. of Sci. and Technol., Hebrew Univ.*
- 3:00 EEE82 **505.03** ● Reliable analysis of single unit activity in long-term recordings from the human medial temporal lobe. J. NIEDIEK*; J. FABER; V. A. COENEN; C. E. ELGER; F. MORMANN. *Univ. of Bonn, Univ. of Bonn.*
- 4:00 EEE83 **505.04** GluCl/IVM version 2.0: An improved tool for neuronal silencing. S. J. FRAZIER*; B. N. COHEN; H. A. LESTER. *Caltech.*
- 1:00 EEE84 **505.05** ● Microfluidic devices for electrophysiological screening of drug actions in nematodes. J. C. WEEKS*; W. M. ROBERTS; K. J. ROBINSON; S. R. LOCKERY. *Univ. Oregon.*

- 2:00 FFF1 **505.06** The cortical multifocal visual evoked potential revisited. T. J. GAWNE*; R. CHOW; W. J. KRAFT; K. Q. CHANG. *Univ. Alabama Birmingham, UAB, Auburn.*
- 3:00 FFF2 **505.07** ● Linking biological and artificial neuronal assemblies to restore lost brain functions. M. CHIAPPALONE*; F. DIFATO; S. TAVERNA; P. MASSOBRIO; T. LEVI; P. BONIFAZI. *Italian Inst. of Technol., Univ. of Genova, CNRS, Tel Aviv Univ.*
- 4:00 FFF3 **505.08** Auditory mismatch negativity revealed by a custom-made wireless EEG device: Benchmark with a commercially available EEG system. J. DUANN*; C. LIN; S. LIANG; J. YEN; J. CHOU; Y. LIN; J. CHIOU. *China Med. Univ., China Med. Univ., Univ. of California San Diego, Natl. Chiao Tung Univ., Natl. Chiao Tung Univ.*
- 1:00 FFF4 **505.09** Structured neuronal networks investigated by high-resolution MEAs. A. SIMI*; A. BOSCA; A. MACCIONE; T. NIEUS; F. BRANDI; S. DANTE; L. BERDONDINI. *Fondazione Inst. Italiano Di Tecnologia, Fondazione Inst. Italiano Di Tecnologia.*
- 2:00 FFF5 **505.10** Optimization of cortical silent period methodology in a control cohort. J. H. HSIEH*; D. J. STEIN; F. M. HOWELLS. *Univ. of Cape Town, Univ. of Cape Town, Univ. of Cape Town.*
- 3:00 FFF6 **505.11** Three-dimensional real-time electrophysiological functional mapping of eloquent cortex. P. BRUNNER*; A. GUNDUZ; D. GUPTA; A. L. RITACCIO; M. A. ADAMO; H. BISCHOF; G. SCHALK. *Wadsworth Ctr, NYSDOH, Albany Med. Col., Graz Univ. of Technol., Univ. of Florida, Albany Med. Col., Washington Univ. Sch. of Med., Rensselaer Polytechnic Inst., State Univ. of New York at Albany.*
- 4:00 FFF7 **505.12** Improved methods for acute brain slice preparation from adult and aging animals (Part II): Glutathione depletion underlies rapid deterioration of adult brain slices. J. T. TING*; G. FENG. *McGovern Inst. For Brain Res. At MIT.*
- 1:00 FFF8 **505.13** Drug-induced seizures evaluated by standardized middle-throughput *in vitro* hippocampal brain slice assay. M. ROSATO-SIRI; A. UGOLINI; C. VIRGINIO; M. A. CORSI*. *APTUIT Med. Res. Ctr., Aptuit (Verona) S.r.l.*
- 2:00 FFF9 **505.14** Removal of electrocardiographic artifacts from trunk electromyography recordings in individuals with spinal cord injury. S. ASLAN; N. BAJAJ; M. NITZKEN; A. EL-BAZ; A. V. OVECHKIN*. *Univ. Louisville, Univ. Louisville.*
- 3:00 FFF10 **505.15** Efficient coding of vocal transitions revealed by sparse synaptic activity in the singing bird. K. HAMAGUCHI*; I. YOON; B. R. DONALD; R. MOONEY. *Duke Univ., Duke Univ., Duke Univ., Duke Univ.*
- 4:00 FFF11 **505.16** *In vivo* recordings with organic transistor-based devices. T. DOUBLET*; D. KHODAGHOLY; M. GURFINKEL; E. ISMAILOVA; P. P. QUILICHINI; P. LELEUX; A. GHESTEM; T. HERVE; G. MALLIARAS; C. BERNARD. *INSERM U 1106, Ecole Nationale Supérieure des Mines de Saint-Etienne, Microvitae.*
- 1:00 FFF12 **505.17** Using extracellular high-resolution microelectrode array recordings to estimate intracellular features of cultured neurons. D. JÄCKEL; D. J. BAKKUM; M. RADIVOJEVIC; J. MÜLLER; M. FISCELLA; U. FREY; F. FRANKE*; A. HIERLEMANN. *ETH Zürich, Quantitative Biol. Ctr.*
- 2:00 FFF13 **505.18** A wearable electronic device for neuroplasticity studies. K. BROWN*; F. DE CARVALHO; E. R. WILLIAMS; A. JACKSON; M. R. BAKER; S. N. BAKER. *Univ. of Newcastle.*

POSTER

506. Data Analysis and Statistics I

Theme G: Novel Methods and Technology Development

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 FFF14 **506.01** Concatenated phase template for analyzing steady-state visual-evoked responses. T. SHINOZAKI*; Y. NARUSE; H. UMEHARA. *NICT.*
- 2:00 FFF15 **506.02** Testing for effects of stimulus categories relative to background firing. P. N. STEINMETZ*; C. K. THORP. *Barrow Neurolog. Inst., Devicix, LLC.*
- 3:00 FFF16 **506.03** ● Brain-wide synchronization underlying cortical resting-state networks. T. W. BOONSTRA*; S. MEHRKANOON; M. BREAKSPEAR. *Univ. of New South Wales, VU Univ. Amsterdam, Queensland Inst. of Med. Res.*
- 4:00 FFF17 **506.04** ● Hierarchical analysis in the human brain connectivity networks. J. LEE*; Y. LIM; W. LIM; K. JUNG; D. KIM. *KAIST, KAIST.*
- 1:00 FFF18 **506.05** ● Task-related component analysis for functional neuroimaging and application to near-infrared spectroscopy data. H. TANAKA*; T. KATURA; H. SATO. *Japan Advanced Inst. of Sci. and Technol., Hitachi, Ltd.*
- 2:00 FFF19 **506.06** ● The online brain atlas reconciliation tool: A web application for mri atlas exploration and multi-atlas labeling. C. J. JOHNSON*; P. P. MITRA; J. W. BOHLAND. *Boston Univ., Cold Spring Harbor Lab., Boston Univ.*
- 3:00 FFF20 **506.07** Spatial coherence in fMRI: New paradigms for data processing and experimental design. B. O. TURNER*; E. J. PAUL; D. RAMASAMY; A. WADHWA; F. G. ASHBY; U. MADHOW. *Univ. of California, Santa Barbara, Univ. of California, Santa Barbara.*
- 4:00 FFF21 **506.08** Accessing causal information via ECoG analysis on the Macaque monkey. R. M. THOMAS*; C. KEYSERS. *Netherlands Inst. For Neurosci.*
- 1:00 FFF22 **506.09** Measures of reliability of transcranial magnetic stimulation-based cortical measures in proximal musculature. J. SHARMA*; D. CUNNINGHAM; C. BONNET; A. WYANT; D. JANINI; J. HOU; G. H. YUE; E. B. PLOW. *Cleveland Clin., Case Western Reserve Univ., Case Western Reserve Univ., Cleveland Clin., Kessler Fndn. Res. Ctr.*
- 2:00 FFF23 **506.10** Classification of single functional magnetic resonance imaging scans of subject-driven cognitive states using support-vector machines - A within-subject study. N. E. NAWA*; H. ANDO. *NICT Universal Communication Res. Inst.*
- 3:00 FFF24 **506.11** Accounting for artifacts induced by brain motion in two-photon calcium imaging. B. WOODS*; A. VAZQUEZ; W. F. EDDY; S. KIM. *Carnegie Mellon Univ., Univ. of Pittsburgh.*
- 4:00 FFF25 **506.12** Recording and evaluating electrically evoked responses in hippocampal slices using a planar multielectrode array and standard and inverse current-source density analysis. H. W. KITAMURA; T. TATENO*. *Hokaido Univ.*
- 1:00 FFF26 **506.13** The advantages of using population decoding to analyze neural data and a Matlab decoding toolbox. E. M. MEYERS*. *MIT.*
- 2:00 FFF27 **506.14** ● Functional connectivity using sem with fmri implicates the cerebellum in working memory inefficiency in schizophrenia. K. JUNG*; T. S. WOODWARD. *Univ. of British Columbia, BC Mental Hlth. and Additions Res. Inst.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 FFF28 **506.15** ● A toolbox for computational molecular neuroanatomy. P. GRANGE*; J. W. BOHLAND; M. HAWRYLYCZ; P. P. MITRA. *Cold Spring Harbor Lab., Boston Univ., Allen Inst. for Brain Sci.*
- 4:00 FFF29 **506.16** A solution to identifying neurones using extracellular activity in awake animals: a probabilistic machine-learning approach. G. VAN DIJCK; M. M. VAN HULLE*; W. X. PAN; J. T. DUDMAN; S. A. HEINE; P. M. BLAZQUEZ; H. MENG; D. E. ANGELAKI; A. ARENZ; T. W. MARGRIE; A. MOSTOFI; S. EDGLEY; F. BENGTSSON; C. EKEROT; H. JÖRNTELL; T. HOLTZMAN. *Katholieke Univ. Leuven, Univ. of Cambridge, Janelia Farm Res. Campus, Washington Univ., Washington Univ. Sch. of Med., The Natl. Inst. for Med. Res., Univ. of Cambridge, Lund Univ.*
- 1:00 FFF30 **506.17** The mouse brain architecture project web portal. B. V. GALBRAITH*; J. W. BOHLAND; N. JAKIMO; G. Z. HAVKIN; V. PINSKIY; P. P. MITRA. *Boston Univ., Boston Univ., Cold Spring Harbor Lab.*
- 2:00 FFF31 **506.18** A Finite Rate of Innovation algorithm for spike detection from two-photon calcium imaging. S. R. SCHULTZ*; J. OÑATIVIA; J. URIGÜEN; P. DRAGOTTI. *Imperial Col., Imperial Col.*
- 3:00 FFF32 **506.19** Connectome-wide genome-wide scan of young adults discovers common genetic variant associated with dementia severity in the elderly. N. JAHANSHAD*; X. HUA; P. RAJAGOPALAN; D. HIBAR; A. W. TOGA; C. R. JACK JR.; M. W. WEINER; S. E. MEDLAND; G. W. MONTGOMERY; K. L. MCMAHON; G. I. DE ZUBICARAY; N. G. MARTIN; M. J. WRIGHT; P. M. THOMPSON. *UCLA, Mayo Clin., UCSF, Queensland Inst. of Med. Res., Univ. of Queensland.*
- 4:00 FFF33 **506.20** ● Causal functional contributions derived by game theory from deficits after stroke. M. ZAVAGLIA; N. D. FORKERT; B. CHENG; G. THOMALLA; C. C. HILGETAG*. *Univ. Med. Ctr. Hamburg-Eppendorf, Jacobs Univ. Bremen, Univ. Med. Ctr. Hamburg-Eppendorf, Boston Univ.*
- 1:00 FFF34 **506.21** Is spatial smoothing of fMRI data unacceptably misleading? R. TURNER*. *Max-Planck-Institute For Human Cognitive and Brain Sci.*
- 2:00 FFF35 **506.22** A point process study of the spiking activity and dynamics of inferior colliculus neurons. E. PLOURDE*; T. RODE; H. H. LIM; E. N. BROWN. *Univ. De Sherbrooke, Hannover Med. Univ., Univ. of Minnesota, MIT, Massachusetts Gen. Hosp., Harvard Med. Sch.*
- 3:00 FFF36 **506.23** Biomechanical 'Fingerprint' Recognition. D. AUR*; P. BOISSY; R. EDWARDS; M. S. JOG; F. RAHIMI; L. ZHU; C. DUVAL. *Univ. of Victoria, Univ. de Sherbrooke, Univ. of Western Ontario, Univ. du Québec à Montréal.*
- 4:00 FFF37 **506.24** ● Automatic spatial identification and 4D tracking of peri-infarct depolarizations in ischemic rat brain using fast ADC MRI. P. G. MENON*; A. KHARLAMOV; V. E. YUSHMANOV; S. R. YUTZY; P. A. SCHORNACK; E. C. WIENER; F. E. BOADA; S. C. JONES. *Carnegie Mellon Univ., ASRI, Allegheny Gen. Hosp., Univ. of Pittsburgh, ASRI, Allegheny Gen. Hosp.*
- 1:00 FFF38 **506.25** Co-expression profiling of autism genes in the mouse brain. I. MENASHE*; P. GRANGE; E. C. LARSEN; S. BANERJEE-BASU; P. P. MITRA. *Mindspec Inc, Cold Spring harbor Lab.*
- 2:00 FFF39 **506.26** ● A software toolset for rapid scoring and analysis of EEG data. H. HARMON; E. L. AKERS; D. A. JOHNSON; E. NAYLOR*. *Pinnacle Technol.*
- 3:00 FFF40 **506.27** Non-invasive assessment of human neuromagnetic oscillatory activity during electric current stimulation of the brain. E. GARCÍA COSSIO*; M. WITKOWSKI; S. E. ROBINSON; F. L. BRASIL; L. G. COHEN; N. BIRBAUMER; S. R. SOEKADAR. *Applied Neurotechnology/ Univ. Hosp. Tübingen, Applied Neurotechnology/University Hosp. Tübingen, NIH, Inst. of Med. Psychology and Behavioral Neurobio.*
- 4:00 FFF41 **506.28** Analysing correlated data. H. THIJIS*. *I-Biostat.*
- 1:00 FFF42 **506.29** ● An energy efficient neuron model with generalized inverse Gaussian interspike interval durations. J. XING*; W. B. LEVY; T. BERGER. *Univ. of Virginia, Univ. of Virginia.*

POSTER

507. Data Analysis and Statistics II

Theme G: Novel Methods and Technology Development

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 FFF43 **507.01** In-scanner motion biases automated measures of structural MRI brain morphometry. A. F. ALEXANDER-BLOCH*; M. STOCKMAN; L. CLASEN; F. LALONDE; A. RAZNAHAN; J. GIEDD. *NIMH, Univ. of Cambridge, NIMH.*
- 2:00 FFF44 **507.02** Comparison of test-retest reliability of brain graphs during resting state and active task conditions. H. CAO; M. PLICHTA; H. WALTER; S. WITT; M. RIETSCHER; S. CICHON; U. BRAUN; A. MEYER-LINDENBERG; H. TOST*. *Central Inst. of Mental Hlth., Charité Universitätsmedizin Berlin, Univ. of Bonn.*
- 3:00 FFF45 **507.03** ▲ The nose knows, but the eye does not: Automated image analyst development for calcium images of AWC olfactory neuron in *C. elegans*. A. PARMIDGE*; C. BRUGGEMANN; N. L'ETOILE; J. YOUNG. *Mills Col., Univ. of California, San Francisco.*
- 4:00 FFF46 **507.04** A novel spike-sorting algorithm based on density initialization of fuzzy c-means clustering. G. DOUCET; H. SEMMAOUI; J. C. MARTINEZ-TRUJILLO*; M. SAWAN. *McGill Univ., Ecole Polytechnique de Montreal, McGill Univ.*
- 1:00 FFF47 **507.05** Extracting functional brain networks from human resting state electrocorticography using spatio-spectral deep belief network analysis. Z. V. FREUDENBURG*; M. J. VANSTEENSEL; M. G. BLEICHNER; C. GAONA; M. SHARMA; D. BUNDY; R. B. PLESS; N. F. RAMSEY; E. C. LEUTHARDT. *UMC Utrecht-Rudolf Magnus Inst., Washington Univ. in St. Louis, Washington Univ. in St. Louis, Washington Univ. in St. Louis.*
- 2:00 FFF48 **507.06** Differences between TBSS and TSA: A study of brain white matter plasticity in early blinds. Y. LAO*; C. BRUN; Y. KANG; F. LEPORE; O. COLLIGNON; F. ALARY; J. GEE; M. D. NELSON; N. LEPORE. *Dept. of Radiology, Children's Hosp. Los Angeles and Univ. of South, Dept. of Radiology, Penn Image Computing and Sci. Laboratory, Univ. of Pennsylvania, Dept. of Psychology, Univ. of Montreal.*
- 3:00 FFF49 **507.07** Regional variations in the time course of EEG-fMRI signal coupling. H. XIA*; M. COHEN; D. RUAN. *Univ. of California Los Angeles, UCLA.*

- 4:00 FFF50 **507.08** Analysis of the diffusion-weighted fmri time-series comparing block and event-related designs. R. J. WILLIAMS*; J. HOCKING; K. MCMAHON; D. C. REUTENS. *UQCCR, Ctr. for Advanced Imaging.*
- 1:00 FFF51 **507.09** Automated quantification of fiber tract diffusion profiles for clinical analysis of white matter properties. J. YEATMAN*; R. F. DOUGHERTY; N. MYALL; B. A. WANDELL; H. M. FELDMAN. *Stanford Univ., Stanford Univ.*
- 2:00 FFF52 **507.10** Compensatory transcommissure fibers in a patient with agenesis of corpus callosum. C. CHEN*; J. DUANN; M. LU; Y. HSU; C. TSAI. *China Med. Univ. Hosp., Natl. Chung Hsing Univ., China Med. Univ. Hosp., China Med. Univ., Univ. of California San Diego, China Med. Univ. Hosp., China Med. Univ.*
- 3:00 FFF53 **507.11** Quantifying real-world movement dynamics post stroke. Y. LU*; V. ALURU; P. RAGHAVAN. *New York Univ., The Rusk Institute, NYU Med. Ctr., The Rusk Institute, NYU Sch. of Med.*
- 4:00 FFF54 **507.12** MNET: New analysis tool for integrating structural-functional human brain connectome. M. UM*; B. PARK; H. PARK. *Brain Korea 21 Project For Med. Science, Yonsei Univ. Col. of Medicine, Dept. of Nuclear Medicine, Yonsei Univ. Col. of Med.*
- 1:00 FFF55 **507.13** A comparison of the bereitschaftsfield and bereitschaftskomplexität. S. E. ROBINSON*; S. R. SOEKADAR; M. WITKOWSKI; A. J. MANDELL; R. COPPOLA. *NIH/NIMH, Univ. of Tübingen, Univ. of California San Diego, NIH/NIMH.*
- 2:00 FFF56 **507.14** Across-condition comparison of spike-field association. K. Q. LEPAGE*; G. G. GREGORIOU; M. A. KRAMER; S. J. GOTTS; M. AOI; R. DESIMONE; U. T. EDEN. *Boston Univ., Univ. of Crete, Natl. Inst. of Mental Hlth., MIT.*
- 3:00 FFF57 **507.15** A general-purpose low-cost solution for high-resolution temporal synchronization in human-subject experimentation. M. JASWA*; B. KELLIHAN; M. CANNON; W. D. HAIRSTON; S. M. GORDON; B. LANCE. *DCS Corp., DCS Corp., Army Res. Lab.*
- 4:00 FFF58 **507.16** Principal components analysis of mouse behavior in an open field environment. J. T. MCCABE*; L. B. TUCKER. *Dept. of Anatomy, Physiol. & Genetics, Uniformed Services Univ., Uniformed Services Univ. of the Hlth. Sci.*
- 1:00 FFF59 **507.17** Analysis of neural network structure by information geometric measure. Y. NIE; K. ALI; J. FELLOUS; M. TATSUNO*. *Univ. Lethbridge, Univ. of Arizona.*
- 2:00 FFF60 **507.18** ● FARSIGHT: A computational toolkit for quantitative three-dimensional multiparameter profiling of gliovascular brain tissue surrounding implanted neuroprosthetic devices. B. ROYSAM*; R. PADMANABHAN; Y. XU; Y. LU; J. LUISI; M. SVELONAS; B. BUSSE; V. SOMASUNDAR; N. REY-VILLAMIZAR; P. KULKARNI; H. CHEUNG; A. CHEONG; C. TSAI; K. TRETT; C. HARRIS; P. CHONG; C. STOETZNER; R. VETTER; L. CARIN; D. KIPKE; W. SHAIN. *Univ. of Houston, Univ. of Houston, Seattle Children's Res. Inst., Iona Col., Univ. of Michigan, Neuronexus Technologies Inc, Duke Univ.*
- 3:00 FFF61 **507.19** ● Comparison of motor and language networks identified by electrocortical stimulation and resting-state functional MRI. T. J. MITCHELL*; C. D. HACKER; N. P. SZRAMA; M. SHARMA; D. T. BUNDY; M. PAHWA; J. D. BRESHEARS; J. S. SHIMONY; E. C. LEUTHARDT. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*
- 4:00 FFF62 **507.20** Centrality of the mammalian functional brain network. M. BESSERVE*; A. BARTELS; Y. MURAYAMA; N. K. LOGOTHETIS. *MPI for Biol. Cybernetics, Ctr. for Integrative Neuroscience, Univ. of Tübingen, Imaging Sci. and Biomed. Engineering, Univ. of Manchester.*
- 1:00 FFF63 **507.21** Skellam process and its application in modeling neural spike trains. R. RAMEZAN*; P. MARRIOTT; S. CHENOURI. *Univ. of Waterloo.*
- 2:00 FFF64 **507.22** Detection of temporal structure of neuronal spiking given noisy sparse data. P. B. KRUSKAL*; A. J. SADOVSKY; J. N. MACLEAN. *Univ. of Chicago.*
- 3:00 FFF65 **507.23** Quantitative correction of residual motion artifacts in resting-state fMRI. R. KUPLICKI*; J. HALE; W. COBERLY; W. K. SIMMONS; J. BODURKA; P. S. F. BELLGOWAN. *Laureate Inst. For Brain Res., Univ. of Tulsa, Univ. of Tulsa.*
- 4:00 FFF66 **507.24** Utilizing caworks for neuroimaging quality control in the biocard project. T. REIGEL; A. KOLASNY*; E. POSTELL; T. BROWN; J. HENNESSEY; B. SCHNEIDER. *Johns Hopkins Univ.*
- 1:00 FFF67 **507.25** ● Three-dimensional neurophenotyping of adult zebrafish behavior: Updates, achievements and future directions. J. CACHAT*; C. COLLINS; E. KYZAR; S. GAIKWAD; J. GREEN; A. STEWART; A. ROTH; S. LANDSMAN; F. GRIECO; R. TEGELBOSCH; L. NOLDUS; A. KALUEFF. *Tulane Univ. Med. Sch., Noldus Information Technol., Zebrafish Neurosci. Res. Inst. (ZENEREI).*

POSTER

508. Data Analysis and Statistics III

Theme G: Novel Methods and Technology Development

Mon. 1:00 PM – Ernest N. Morial Convention Center, Hall F-J

- 1:00 FFF68 **508.01** ● ▲ The maximal information coefficient as a general measure of cross-frequency coupling. J. T. GÓIS*; A. B. L. TORT. *Federal Univ. of Rio Grande Do Norte.*
- 2:00 FFF69 **508.02** ● Prenatal antidepressant exposure in a cohort of neurotypical children. M. WOOD; L. YAKUTIS; D. N. KENNEDY*; J. A. FRAZIER; A. PEDIATRIC IMAGING, NEUROCOGNITION AND GENETICS. *U. Massachusetts Med., UCSD.*
- 3:00 FFF70 **508.03** ▲ Effect of fMRI sampling rate on estimates of resting-state connectivity. P. WU*; D. A. HANDWERKER; J. GONZALEZ-CASTILLO; V. ROOPCHANSINGH; P. A. BANDETTINI. *Section On Functional Imaging Methods, Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth.*
- 4:00 FFF71 **508.04** Adaptive fractal analysis of postural sway. N. KUZNETSOV; M. RILEY; J. GAO; I. VILINSKY*. *Univ. of Cincinnati, Dept. of Psychology, PMB Intelligence LLC, Univ. of Cincinnati.*

* Indicated a real or perceived conflict of interest, see page 165 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 FFF72 **508.05** Single-trial reproducibility analysis by semantic texton forests. A. C. TSAI*; M. LIOU; T. JUNG; V. CHIEN; H. SU; S. MAKEIG. *Inst. of Statistical Science, Academia Sinica, Ctr. for Advanced Neurolog. Engin., Swartz Ctr. for Computat. Neurosci.*
- 2:00 FFF73 **508.06** Measuring the spikes cluster quality to improve the stability and reliability of coding. W. HONG*; X. LIU. *Zhengzhou Univ., Zhengzhou Univ.*
- 3:00 FFF74 **508.07** Extensions to the Neurosynth framework for automated neuroimaging meta-analysis. T. YARKONI*; R. A. POLDRACK; T. D. WAGER. *Univ. of Colorado, Univ. of Texas at Austin.*
- 4:00 FFF75 **508.08** ● The evaluation of different clustering methods and their combination with a template matching algorithm in an implementation of fully automatic online spike sorting. P. J. HOLLAND*; M. MECHAEAL; M. DEFFAINS; O. DONCHIN; M. FARAH. *Alpha Omega Engin., The Hebrew Univ., Ben Gurion Univ. of the Negev.*
- 1:00 FFF76 **508.09** Refining searchlight mvpa results: A novel ensemble based algorithm. S. VISWANATHAN*; M. CIESLAK; S. T. GRAFTON. *Univ. of California Santa Barbara.*
- 2:00 FFF77 **508.10** Actively-linked analytical methods for quantitative profiling of glia and punctate structures. B. (. BUSSE*; R. PADMANABHAN; M. SVELONAS; Y. XU; W. SHAIN; S. J. SMITH; B. ROYSAM. *Univ. of Houston, Seattle Children's Res. Inst., Stanford, Univ. of Houston.*
- 3:00 FFF78 **508.11** Total variation denoising in fMRI regression. M. A. FERGUSON*; S. D. DABELL; J. A. NIELSEN; M. LOPEZ-LARSON; D. A. YURGULEN-TODD; J. S. ANDERSON. *Univ. of Utah, Univ. of Utah, Univ. of Utah, Univ. of Utah, Univ. of Utah.*
- 4:00 FFF79 **508.12** WaveSorter: A new free and open-source tool for the offline analysis and classification of neural waveforms. M. H. PHILLIPS*. *Columbia Univ.*
- 1:00 FFF80 **508.13** Multivariate structural feature analysis can readily distinguish the brains of cocaine patients from those of demographically-matched comparison subjects. S. LAM; Z. WANG; J. MAGLAND; C. P. O'BRIEN*; A. CHILDRESS. *Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 2:00 FFF81 **508.14** Spreading the brain network path into the universal covering tree. H. LEE*; H. KANG; E. KIM; D. LEE. *Seoul Natl. Univ., Seoul Natl. Univ.*
- 3:00 FFF82 **508.15** ● SpikeE: A standardized MATLAB platform for automated analysis of neuronal dynamics from large-scale optical calcium-imaging data. J. LECOQ*; L. J. KITCH; M. J. SCHNITZER. *Stanford, Stanford Univ., Stanford Univ., Howard Hughes Med. Inst., Stanford Univ.*
- 4:00 FFF83 **508.16** Template based factor analysis for functional connectivity. A. P. SCHULTZ*; T. HEDDEN; A. M. WARD; K. R. S. VAN DIJK; W. HUIJBERS; E. P. MORMINO; D. G. MCLAREN; R. A. SPERLING. *Martinos Ctr., Harvard Med. School-BWH-MGH, Ctr. for Alzheimer's Res. and Treatment.*

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.

| ABSTRACT NUMBER | STATEMENT | ABSTRACT NUMBER | STATEMENT |
|--------------------|---|--------------------|--|
| 303 | E. Castren: Other Research Support; Orion Pharma, Inc. Ownership Interest; Hermo Pharma, Inc. Consultant/Advisory Board; Hermo Pharma, Inc. | 327.14 | S. Sadaf: Employment; National Centre for Biological Sciences, Tata Institute of Fundamental Research. Other Research Support; Council of Scientific and Industrial research. G. Hasan: Employment; National Centre for Biological Sciences, Tata Institute of Fundamental Research. Research Grant; National Centre for Biological Sciences, Tata Institute of Fundamental Research, Department of Biotechnology, Department of Science and Technology. |
| 303.02 | E. Castren: Other Research Support; Orion Pharma, Inc. Ownership Interest; Hermo Pharma, Inc. Consultant/Advisory Board; Hermo Pharma, Inc. | 328.01 | V. Grinevich: Employment; Targacept, Inc. T.A. Hauser: Employment; Targacept, Inc. M. Bencherif: Employment; Targacept, Inc. |
| 303.03 | R. Hagerman: Research Grant; Seaside Therapeutics, Novartis, Roche, Curemark, Forest. Consultant/Advisory Board; targeted treatments in Fragile X Syndrome. | 328.02 | R. Maex: Research Grant; Targacept, Inc. M. Bencherif: Employment; Targacept, Inc. Ownership Interest; Targacept, Inc. |
| 306 | K. Deisseroth: Ownership Interest; Circuit Therapeutics. | 328.03 | G.B. Wells: Employment; Texas A&M University System Health Science Center. Research Grant; NIH-NIGMS, NIH-NIDCD. A.M. Person: Employment; Employment: Texas A&M University System Health Science Center. Research Grant; NIH-NIGMS. |
| 306.04 | M.J. Schnitzer: Ownership Interest; Inscopix Inc. | 328.12 | Y. Huang: Employment; University of Alaska Fairbanks. Research Grant; The UAF Specialized Neuroscience Research Program (NIH NINDS:5R01NS066059). M.M. Weltzin: Employment; University of Alaska Fairbanks. N. German: Employment; Virginia Commonwealth University. A. Jain: Employment; Virginia Commonwealth University. Z. Bikádi: Employment; Virtua Drug Ltd. R.A. Richard A. Glennon: Employment; Virginia Commonwealth University. |
| 306.05 | K. Deisseroth: Ownership Interest; Circuit Therapeutics. | 328.15 | M.K. Schulte: Employment; University of Alaska Fairbanks. Research Grant; NIH NINDS: 5R01NS066059. Y. Huang: Employment; University of Alaska Fairbanks. Research Grant; NIH NINDS: 5R01NS066059. R.A. Glennon: Employment; Virginia Commonwealth University. |
| 307.03 | C. Holscher: Research Grant; Alzheimer Society UK. | 328.17 | S.A. Rideout: Employment; University of Alaska Fairbanks. Research Grant; 1R01NS057366. Other Research Support; The Alzheimer's Resource of Alaska. M.B. Harris: Employment; University of Alaska Fairbanks. K. Hueffer: Employment; University of Alaska Fairbanks. M.K. Schulte: Employment; University of Alaska Fairbanks. |
| 309 | B.J. Sahakian: Consultant/Advisory Board; Cambridge Cognition. | 329.04 | N.B. Fedorov: Employment; Targacept. Ownership Interest; Targacept. J.D. Graef: Employment; Targacept. Ownership Interest; Targacept. L. Benson: Ownership Interest; Targacept. P.M. Lippiello: Employment; Targacept. Ownership Interest; Targacept. M. Bencherif: Employment; Targacept. Ownership Interest; Targacept. |
| 310 | A.F.T. Arnsten: Ownership Interest; Receives royalties from Shire Pharmaceuticals. | 329.05 | G. Gilmour: Employment; GG is an employee of Eli Lilly & Co. Ltd. E. Sher: Employment; ES is an employee of Eli Lilly & Co. Ltd. |
| 312.05 | D. Jin: Employment; Children's Hospital Boston. Research Grant; Paralyzed Veterans of America. Other Research Support; William Randolph Hearst Foundation. | 329.15 | K.J. Kellar: Other; patent. |
| 312.07 | L. Pan: Employment; Purdue University. Speakers Bureau/Honoraria; Basic Medical Science, College of Veterinary Medicine. | 330.01 | M.R. Brown: Research Grant; Autifony Therapeutics Limited. C.H. Large: Employment; Autifony Therapeutics Limited. Ownership Interest; Autifony Therapeutics Limited. G.S. Alvaro: Employment; Autifony Therapeutics Limited. Ownership Interest; Autifony Therapeutics Limited. L.K. Kaczmarek: Research Grant; Autifony Therapeutics Limited. |
| 312.10 | S.A. Busch: Employment; Athersys, Inc. Research Grant; Ohio Third Frontier Biomedical Program Grant. M. Palmer: Employment; Athersys, Inc. J.A. Hamilton: Employment; Athersys, Inc. R. Cutrone: Employment; Athersys, Inc. A.E. Ting: Employment; Athersys, Inc. R.J. Deans: Employment; Athersys, Inc. R.W. Mays: Employment; Athersys, Inc. | 330.02 | C.H. Large: Employment; Autifony Therapeutics. Ownership Interest; Autifony Therapeutics. M. Rosato-Siri: Employment; Glaxosmithkline. C. Virginio: Employment; Glaxosmithkline. E. Zambello: Employment; Glaxosmithkline. C. Mutinelli: Employment; Glaxosmithkline. G.S. Alvaro: Employment; Autifony Therapeutics. Ownership Interest; Autifony Therapeutics. |
| 313.09 | C.A. Tan Hehir: Employment; General Electric. Research Grant; National Institute of Health. V.E. Cotero: Employment; General Electric. | 332.19 | M. Kubista: Employment; TATAA Biocenter. |
| 315.10 | G.F. Hall: Consultant/Advisory Board; Science Advisory Board member of Immunotrex Biologics Inc. | 333.03 | M.B. Jackson: Employment; University of Wisconsin. Research Grant; NIH NS44057. |
| 316.06 | G. Hickok: Research Grant; NIH. | 334.08 | R.S. Stewart: Research Grant; NIH. |
| 319.01 | Q. Li: Employment; NINDS. | | |
| 319.07 | J. Parvizi: Research Grant; NIH 1R01NS07839601. L.Y. Deouell: Other Research Support; The National Institute for Psychobiology in Israel, founded by the Charles E. Smith family. | | |
| 322.01 | J. Höffmann: Employment; Brain Products GmbH. | | |
| 322.02 | M. Chi: Employment; Cognionics, San Diego. | | |
| 322.04 | J. Viventi: Consultant/Advisory Board; mc10 Inc. J.A. Rogers: Ownership Interest; mc10 inc. B. Litt: Consultant/Advisory Board; mc10 Inc. | | |
| 322.10 | B.A. Corneli: Employment; Surgical Diagnostics Pty Ltd. Research Grant; Australian Government Linkage Grant. Other Research Support; none. Speakers Bureau/Honoraria; none. S. Carne: Employment; Surgical Diagnostics. Research Grant; Australian Government Linkage Grant. | | |
| 324.17 | S. Sato: Other; Japan Science and Technology Agency. | | |
| 324.25 | C. Shih: Employment; Georgetown University. B. Xu: Employment; Georgetown University. | | |
| 325.02 | D.A. Lewis: Research Grant; BMS Foundation, Bristol-Myers Squibb, Curriculum Ltd, Pfizer. Consultant/Advisory Board; Bristol-Myers Squibb. | | |
| 325.04 | D.A. Lewis: Other Research Support; BMS Foundation, Bristol-Myers Squibb, Curridium Ltd., Pfizer. Consultant/Advisory Board; Bristol-Myers Squibb. | | |
| 326.08 | O.H. Schroeder: Ownership Interest; NeuroProof GmbH. A. Voss: Ownership Interest; NeuroProof GmbH. | | |
| 327.03 | S. Bang: Research Grant; BK21 Advanced Training Program for Biological Sciences. | | |

| ABSTRACT NUMBER | STATEMENT | ABSTRACT NUMBER | STATEMENT |
|--------------------|--|--------------------|---|
| 336.03 | S.J. Kang: Research Grant; World Class University, South Korea. M. Liu: Research Grant; World Class University, South Korea. H. Ko: Research Grant; National Research Foundation of Korea Grant. G. Baek: Research Grant; BK21 fellowship. B. Lee: Research Grant; World Class University, South Korea. H. Lee: Research Grant; BK21 fellowship. K. Lee: Research Grant; Basic Science Research Program. G.L. Collingridge: Research Grant; World Class University, South Korea. B. Kaang: Research Grant; World Class University & National Creative Research Initiative Program, South Korea. M. Zhuo: Research Grant; World Class University, South Korea, Canada Research Chair (CRC), NSEC discovery grant. | 346.15 | D.E. Smith: Employment; Angion Biomedica Corp. Research Grant; 5 R44 NS063483. N. Naraindas: Employment; Angion Biomedica Corp. Research Grant; 5 R44 NS063483. K. Jiang: Employment; Angion Biomedica Corp. Research Grant; 5 R44 NS063483. Y. Hao: Employment; Angion Biomedica Corp. Research Grant; 5 R44 NS063483. G. Enikolopov: Research Grant; 5 R44 NS063483. |
| 336.09 | A. Kumar: Research Grant; NIH grant AG014979. | 346.18 | D.W. Pitathomas: Employment; University of Miami. Research Grant; the Technology Transfer Feasibility Grant ID 2KF03. M.B. Steketee: Employment; University of Miami. K. Kador: Employment; University of Miami. J.L. Goldberg: Employment; University of Miami. Research Grant; the Technology Transfer Feasibility Grant ID 2KF03. |
| 337.11 | N.A. Lavidis: Consultant/Advisory Board; Consultant Neuroscint Pty Ltd. | 346.22 | P.A. Howson: Employment; Phytopharm plc. C.L. Ward: Employment; Phytopharm plc. D.G. Kay: Other Research Support; The study was funded by Phytopharm plc. J.M. VanKampen: Other Research Support; This study was funded by Phytopharm plc. R.I. Hickling: Employment; Phytopharm plc. |
| 337.17 | X. Yu: Employment; UCSC. G. Wang: Employment; Stanford University. A. Gilmore: Employment; UCSC. S.J. Smith: Employment; Stanford University. Y. Zuo: Employment; UCSC. Research Grant; National Institute of Mental Health. | 347.06 | T. Ohkubo: Research Grant; Grants-in-Aid for Scientific Research (A) (#22240039, to T.Y. and H.M.) by the MEXT, Japan, Grant-in-Aid for Young Scientists (A) (#24689039 to T.O.) by the MEXT, Japan. T. Yokota: Research Grant; Grants-in-Aid for Scientific Research (A) (#22240039, to T.Y. and H.M.). |
| 338.02 | G.J. Brewer: Ownership Interest; BrainBits LLC. | 347.17 | T. Ohkubo: Research Grant; Grants from the Ministry of Education, Culture, Sports and Technology (MEXT), Japan (#22890051). H. Mizusawa: Research Grant; Grants from the Ministry of Education, Culture, Sports and Technology (MEXT), Japan (#20301501). T. Yokota: Research Grant; Grants from the Ministry of Education, Culture, Sports and Technology (MEXT), Japan (#20301501) and the Ministry of Health, Labor and Welfare, Japan (#22240039). |
| 340.20 | D. Zecevic: Ownership Interest; RedShirtImaging LLC. | 348.02 | R. Velazquez: Research Grant; NIH. |
| 341.01 | Y. Cui: Research Grant; National Research Foundation of Korea (NRF). | 348.05 | C. Chen: Employment; Department of Biochemistry and Molecular Medicine, University of California-Davis. |
| 342.02 | H. Gautier: Research Grant; MRC. K. Evans: Research Grant; MRC, Wellcome Trust. I. Lundgaard: Research Grant; Axregen FP7 Marie Curie PhD studentship, DASTI student award. J.H. Stockley: Research Grant; Action Medical Research, Henry Smith Charity. R.J.M. Franklin: Research Grant; MRC. R.T. Karadottir: Research Grant; MRC, Wellcome Trust. | 348.09 | P. Caviedes: Other; Patent protection for cell lines used herein. |
| 343.01 | H.K. Borghys: Employment; Janssen. D. Dhuyvetter: Employment; Janssen. L. Dillen: Employment; Janssen. B. Van Broeck: Employment; Janssen. K. De Waepenaert: Employment; Janssen. | 348.10 | P. Caviedes: Other; Patent protection for CTb and CNh cell lines. |
| 343.08 | D. Dhuyvetter: Employment; Janssen. H. Borghys: Employment; Janssen. B. Van Broeck: Employment; Janssen. L. Dillen: Employment; Janssen. H. Gijzen: Employment; Janssen. T. Jacobs: Employment; Janssen. T. Steckler: Employment; Janssen. | 348.13 | P. Cheah: Research Grant; RUGS-04-01-11-1163RU; ERGS -/1/11/SKK/UPM/03/1. K. Ling: Research Grant; RUGS-04-01-11-1163RU; ERGS -/1/11/SKK/UPM/03/1. K. Tan: Research Grant; RUGS-04-01-11-1163RU; ERGS -/1/11/SKK/UPM/03/1. |
| 343.15 | B. Van Broeck: Employment; Janssen Research and Development. M. Borgers: Employment; Janssen Research and Development. G. Meulders: Employment; Janssen Research and Development. B. Hermans: Employment; Janssen Research and Development. D. Dhuyvetter: Employment; Janssen Research and Development. H. Borghys: Employment; Janssen Research and Development. M.H. Mercken: Employment; Janssen Research & Development. | 349.05 | G.H. Rezende: Research Grant; CAPES, FAPEMIG. |
| 343.18 | E.J. Mufson: Research Grant; NSF. Other Research Support; James S. McDonnell Foundation. M.D. Ikonomic: Research Grant; NIA. Consultant/Advisory Board; GE. P.R. Hof: Other Research Support; James S. McDonnell Foundation. M. Raghanti: Research Grant; NSF. | 349.24 | J.G. Jefferys: Research Grant; Epilepsy Research UK. P. Jiruska: Research Grant; Epilepsy Research UK. |
| 344.09 | M. Sinha: Employment; Senior Research fellow. S. Chakrabarti: Employment; prof. & Head. | 350.04 | L. Kiedrowski: Research Grant; NIH. |
| 344.29 | D.J. Selkoe: Consultant/Advisory Board; Elan Corporation, plc. | 350.05 | Z.A. Shah: Research Grant; NCCAM-NIH (R00AT004197). |
| 345.06 | H. Shinno: Research Grant; a Grant-in-Aid for Scientific Research (22591286). | 351.09 | R.J. Killiany: Consultant/Advisory Board; Sunovion Pharmaceuticals. Other; Clinial affiliation with Essex Neurological Associates, Research affiliation with MRI Centers of New England. |
| 345.09 | K.I. Taylor: Research Grant; Swiss National Science Foundation Ambizione Fellowship PZ00P1_126493. | 351.11 | T.A. Doucette: Consultant/Advisory Board; Neurodyn Inc. R.A. Tasker: Consultant/Advisory Board; Neurodyn Inc. |
| 345.21 | S. Landau: Consultant/Advisory Board; Susan Landau reports consulting with Janssen AI and Avid Radiopharmaceuticals. W. Jagust: Research Grant; receives research support from the NIH. Consultant/Advisory Board; served as a consultant to Genentech, GE Healthcare, Bayer Healthcare, Synarc, Janssen Alzheimer Immunotherapy, TauRx, and Merck & Co. | 351.16 | A.G. Machado: Ownership Interest; IntElect Medical, Cardionomics, ATI. Consultant/Advisory Board; Monteris Medical. |
| 346.02 | E.M. Sykova: Research Grant; AVOZ 50390703, GA CR 304/11/0189. | 351.17 | A.G. Machado: Research Grant; R01 HD061363. Ownership Interest; IntElect Medical, Cardionomics, ATI. Consultant/Advisory Board; Monteris. K. Baker: Ownership Interest; IntElect Medical, ATI, Cardionomics. |
| | | 351.18 | A.G. Machado: Ownership Interest; IntElect Medical, Cardionomics and ATI. Consultant/Advisory Board; Monteris medical. |
| | | 351.19 | A.G. Machado: Ownership Interest; IntElect Medical, Cardionomics and ATI. Consultant/Advisory Board; Monteris Medical. |
| | | 352.01 | L. Dahlin: Consultant/Advisory Board; Axogen Inc. |
| | | 352.02 | L.B. Dahlin: Consultant/Advisory Board; Axogen Inc. |

| ABSTRACT NUMBER | STATEMENT | ABSTRACT NUMBER | STATEMENT |
|--------------------|--|--------------------|---|
| 352.03 | D.F. Muir: Other; David Muir is an inventor of nerve grafting technology and holds equity in AxoGen, a company commercializing the technology. David Muir may benefit financially from this technology. | 358.06 | C.A. Turner: Other Research Support; Pritzker Neuropsychiatric Disorders Research Consortium. R.C. Thompson: Other Research Support; Pritzker Neuropsychiatric Disorders Research Consortium. W.E. Bunney: Other Research Support; Pritzker Neuropsychiatric Disorders Research Consortium. A.F. Schatzberg: Other Research Support; Pritzker Neuropsychiatric Disorders Research Consortium. J.D. Barchas: Other Research Support; Pritzker Neuropsychiatric Disorders Research Consortium. R.M. Myers: Other Research Support; Pritzker Neuropsychiatric Disorders Research Consortium. H. Akil: Other Research Support; Pritzker Neuropsychiatric Disorders Research Consortium. S.J. Watson: Other Research Support; Pritzker Neuropsychiatric Disorders Research Consortium. |
| 352.05 | C. McEwen: Employment; Acorda Therapeutics. T. Schallert: Consultant/Advisory Board; Acorda Therapeutics. | 358.07 | C.A. Stockmeier: Research Grant; P20 RR17701. |
| 352.08 | K.M. Wozniak: Research Grant; Eisai Inc. M. Farah: Research Grant; Eisai Inc. B. Littlefield: Employment; Eisai Inc. K. Nomoto: Employment; Eisai Inc. B.S. Slusher: Research Grant; Eisai Inc. Consultant/Advisory Board; Eisai Inc. | 358.15 | R.J. Donati: Ownership Interest; Pax Neuroscience. M.M. Rasenick: Employment; Pax Neuroscience. Research Grant; VA, DOD, Eli Lilly. Ownership Interest; Pax Neuroscience. Consultant/Advisory Board; Pax Neuroscience, Eli Lilly. |
| 354.13 | P.M. Patel: Research Grant; NIGM Grant. B.P. Head: Research Grant; Veterans Affairs CDA-2, VA Merit, NINDS. | 358.17 | K. Borgmann-Winter: Other Research Support; AstaZeneca. C. Hahn: Research Grant; AstraZeneca. |
| 354.20 | P.A. Ferchmin: Employment; Department of Biochemistry, Universidad Central Del Caribe, Bayamón, PR, USA. Research Grant; NIH 1U01NS063555; NIH RCM1 2G12RR03035. D. Pérez: Employment; Department of Biochemistry, Universidad Central Del Caribe, Bayamón, PR, USA. B.L. Cuadrado: Employment; Department of Biochemistry, Universidad Central Del Caribe, Bayamón, PR, USA. M. Carrasco: Employment; Department of Biochemistry, Universidad Central Del Caribe, Bayamón, PR, USA. A.H. Martins: Employment; Department of Biochemistry, Universidad Central Del Caribe, Bayamón, PR, USA. V.A. Etrovic: Employment; Department of Biochemistry. | 358.21 | H. Siebner: Speakers Bureau/Honoraria; received a speaker fee from Biogen in 2012. |
| 354.21 | E.C. Beattie: Employment; iPierian. S. Wright: Employment; iPierian. L. Nguyen: Employment; iPierian. B. Cooper: Employment; iPierian. S. Hussain: Employment; iPierian. C. Ramos: Employment; iPierian. A. Crum: Employment; iPierian. J. Bright: Employment; iPierian. B. Christie: Employment; iPierian. E. Rose: Employment; iPierian. M. Burkhardt: Employment; iPierian. J. Dimos: Employment; iPierian. M. Grskovic: Employment; iPierian. A. Javaherian: Employment; iPierian. S. Irion: Employment; iPierian. N. Stagliano: Employment; iPierian. I. Griswold-Prenner: Employment; iPierian. | 358.22 | H.S. Mayberg: Consultant/Advisory Board; St. Jude Medical Neuromodulation. Other; Intellectual Property, St. Jude Medical Neuromodulation. |
| 354.28 | I. Charalampopoulos: Ownership Interest; Bionature EA Ltd. A. Gravanis: Ownership Interest; Bionature EA Ltd. | 359.04 | R. Doron: Research Grant; National Institute for Psychobiology in Israel (NIPI NO.7-2011-12), Israeli Science Foundation (ISF). |
| 356.06 | A.C. Lahti: Research Grant; R01 MH081014. | 359.06 | M. Kalinichev: Employment; Addex Therapeutics. M. Rouillier: Employment; Addex Therapeutics. F. Girard: Employment; Addex Therapeutics. I. Royer-Urios: Employment; Addex Therapeutics. B. Bournique: Employment; Addex Therapeutics. T. Finn: Employment; Addex Therapeutics. D. Charvin: Employment; Addex Therapeutics. E. Le Poul: Employment; Addex Therapeutics. V. Mutel: Employment; Addex Therapeutics. S. Poli: Employment; Addex Therapeutics. R. Lutjens: Employment; Addex Therapeutics. |
| 356.07 | A.C. Lahti: Research Grant; R01 MH081014, NIH. | 359.09 | I.A. Ionescu: Other; Patent on intranasal NPS application. Y. Yen: Other; Patent on intranasal NPS application. F. Holsboer: Other; Patent on intranasal NPS application. R. Landgraf: Other; Patent on intranasal NPS application. U. Schmidt: Other; Patent on intranasal NPS application. |
| 356.10 | A.C. Lahti: Research Grant; A. C. Lahti received NIH/NIMH grants support related to this study R01 MH081014. | 360.02 | M.L. Barker-Haliski: Other Research Support; AFPE Pre-Doctoral Fellowship. |
| 356.12 | A.C. Lahti: Research Grant; NIH R01 MH081014. | 361.08 | E.F. Domino: Other Research Support; University of Michigan Research and Development Fund. L. Ni: Other Research Support; University of Michigan Research and Development Fund. M. Fujita-Hirasawa: Other Research Support; University of Michigan Research and Development Fund. |
| 356.14 | J.A. Frazier: Research Grant; Seaside Therapeutics, Roche Pharmaceuticals, Pfizer, Glaxo Smith Kline. | 362.01 | R.A. Magaji: Employment; Ahmadu Bello University, Zaria, Nigeria. |
| 357.08 | D.A. Lewis: Research Grant; BMS Foundation, Bristol-Myers Squibb, Curridium Ltd, Pfizer. Consultant/Advisory Board; Bristol-Myers Squibb. | 362.08 | C. Giuliano: Employment; University of Cambridge. Research Grant; GlaxoSmithKlein. T.W. Robbins: Employment; University of Cambridge. Research Grant; GSK, Lilly and Lundbeck. Consultant/Advisory Board; GSK, Cambridge Cognition, Lilly, Lundbeck and Merck. P.J. Nathan: Employment; University of Cambridge and GSK. Ownership Interest; GSK. E.T. Bullmore: Employment; University of Cambridge and GSK. Ownership Interest; GSK. B.J. Everitt: Employment; University of Cambridge. Research Grant; GlaxoSmithKlein. |
| 357.09 | D.A. Lewis: Other Research Support; BMS Foundation, Bristol-Myers Squibb, Curridium Ltd, Pfizer. Consultant/Advisory Board; Bristol-Myers Squibb. | 362.10 | T. Yamada: Research Grant; JST CREST. |
| 357.10 | D.A. Lewis: Research Grant; BMS Foundation, Bristol-Myers Squibb, Curridium Ltd, Pfizer. Consultant/Advisory Board; Bristol-Myers Squibb. | 362.11 | J.K. Britt: Research Grant; The Hartwell Foundation. P. Xu: Research Grant; The Hartwell Foundation. A.A. Pieper: Research Grant; The Hartwell Foundation. |
| 357.12 | D. Lewis: Research Grant; R01MH043784. Other Research Support; BMS Foundation, Bristol-Myers Squibb, Curridium Ltd, Pfizer. Consultant/Advisory Board; Bristol-Myers Squibb. | 363.02 | T. Roy: Employment; All India Institute of Medical Sciences, New Delhi. Research Grant; Indian Council of Medical Research. Other Research Support; All India Institute of Medical Sciences. |
| 357.13 | D.A. Lewis: Employment; University of Pittsburgh. Research Grant; MH084053. Other Research Support; BMS Foundation, Bristol-Myers Squibb, Curridium Ltd, Pfizer. Consultant/Advisory Board; Bristol-Myers Squibb. | | |
| 357.14 | D.A. Lewis: Research Grant; BMS Foundation, Bristol-Myers Squibb, Curridium Ltd, Pfizer. Consultant/Advisory Board; Bristol-Myers Squibb. | | |

| ABSTRACT NUMBER | STATEMENT | ABSTRACT NUMBER | STATEMENT |
|--------------------|--|--------------------|---|
| 363.04 | X. Zhu: Research Grant; NIH. J.P. Walton: Research Grant; NIH. B. Ding: Research Grant; NIH. R.D. Frisina: Research Grant; NIH. | 376.29 | M. Mashregi: Research Grant; NIH. D. Froimovitch: Research Grant; NIH. E. Soleimannejad: Research Grant; NIH. Z. Seltzer: Employment; University of Toronto. Research Grant; NIH. |
| 364.22 | T. Tzounopoulos: Research Grant; DC007905. | 377.17 | C. Itami: Research Grant; MEXT23115515. F. Kimura: Research Grant; MEXT23115515. |
| 365.07 | W. Song: Research Grant; Grant-in-Aid for Scientific Research on Innovative Areas 'Mesoscopic Neurocircuitry' (23115516), KAKENHI (20300112, 22220004, and 23659797). | 378.03 | G.F. Forrest: Research Grant; 191152 Craig H Neilson Foundation. Forrest (PI)07/01/11 – 06/31/13, 191152 Craig H Neilson Foundation. Forrest (PI)07/01/11 – 06/31/13. |
| 367.10 | B. Ding: Research Grant; NIH. R.D. Frisina: Research Grant; NIH. X. Zhu: Research Grant; NIH. D. Frisina: Research Grant; NIH. J.P. Walton: Research Grant; NIH. | 378.06 | S. Uzun: Research Grant; TUBITAK FROM TURKEY. |
| 367.18 | I. Fukui: Research Grant; KAKENHI24500459. | 378.07 | J.A. Brangaccio: Employment; Helen Hayes Hospital, NYS Dept. Health. J.M. Sniffen: Employment; School of Health Technology & Management, State University of New York at Stony Brook, Helen Hayes Hospital, NYS Dept. Health. A.K. Thompson: Employment; Helen Hayes Hospital, NYS Dept. Health, Department of Neurology, Neurological Institute, Columbia University, Department of Biomedical Sciences, State University of New York at Albany, Wadsworth Center, NYS Dept. Health. Research Grant; NIH NS69551, Helen Hayes Hospital Foundation. |
| 368.06 | C. Honey: Research Grant; Wellcome Trust Doctoral Research Grant. J.W. Schnupp: Research Grant; royal society international joint project grant. | 378.08 | L. Tenteromano: Employment; Helen Hayes Hospital. A.J. Amsterdam: Employment; Helen Hayes Hospital. J. Brangaccio: Employment; Helen Hayes Hospital. J. Sniffen: Employment; School of Health Technology & Management, State University of New York at Stony Brook, Helen Hayes Hospital. A. Thompson: Employment; Helen Hayes Hospital, Wadsworth Center, NYS Dept. Health, Department of Neurology, Neurological Institute, Columbia University, Department of Biomedical Sciences, State University of New York at Albany. Research Grant; NIH NS69551, Helen Hayes Hospital Foundation, NYS Spinal Cord Injury Research Trust C023685. |
| 368.16 | A. Willis: Employment; University of Illinois. D. Llano: Employment; University of Illinois. Research Grant; NIDCD. Other Research Support; American Federation for Aging Research. | 378.11 | X. Zhang: Employment; K U Leuven. Research Grant; Ph.D fellowship research foundation flanders. F. van den Berg: Employment; K U Leuven. Research Grant; FWO G. 0758.10. N. Wenderoth: Employment; ETH Zurich. |
| 368.29 | E. Caporello: Research Grant; NIH. | 379.14 | Y. Yang: Research Grant; MH077970. S.G. Lisberger: Research Grant; MH077970. |
| 369.05 | J. Schlesinger: Research Grant; VICTR 2236. R. Stevenson: Research Grant; NIH 1F32 DC011993. | 380.04 | A. Singh: Employment; Yerkes National Primate Research Center, Emory University Atlanta, Georgia, USA. Research Grant; NS045962. |
| 369.08 | I. Nakamura: Research Grant; Young Scientists B / 22791129, SENSHIN Medical Research Foundation, Strategic Young Researcher Overseas Visits Program for Accelerating Brain Circulation / S2208. | 380.17 | E.B. Montgomery Jr: Employment; University of Alabama at Birmingham. |
| 369.15 | I. Lin: Employment; NTT Communication Science Labs. Research Grant; NTT Communication Science Labs. M. Kashino: Employment; NTT Communication Science Labs. Research Grant; NTT Communication Science Labs. | 381.03 | J. Kim: Research Grant; The National Research Foundation of Korea(NRF) grant funded by the Korea government(MEST) (No. 20100020676). |
| 370.17 | J. Phillips: Employment; Seattle Children's Hospital. | 381.05 | K. Pirog Revill: Research Grant; NIH. C.M. Bueteifisch: Research Grant; NIH. |
| 372.01 | Y. Uchida: Research Grant; KAKENHI:23700685. | 381.11 | A. Machado: Ownership Interest; IntElect Medical, ATI, Cardionomics, Boston Scientific. Consultant/Advisory Board; IntElect Medical, Monteris, Boston Scientific. |
| 372.20 | M. Bauer: Research Grant; Wellcome Trust grant 087756/Z/08/Z. | 383.01 | S. Kawato: Research Grant; Bioinformatics JST Japan. |
| 373.25 | S. Babapoor-Farrokhran: Employment; Graduate program in Neuroscience, Robarts research institute, Western University, London, Ontario, Canada. | 383.10 | A.A. Mouihate: Employment; Kuwait University. Research Grant; # MY01/10. |
| 375.12 | D. Uta: Research Grant; KAKEN. | 383.21 | J. Wang: Research Grant; Michael J FOX, Alzheimer's Association. |
| 376.04 | J.W. Brown: Employment; Abbott Laboratories. L. Lewis: Employment; Abbott Laboratories. L.E. Rueter: Employment; Abbott Laboratories. T.W. Bannon: Employment; Abbott Laboratories. M. Zhang: Employment; Abbott Laboratories. S.K. Joshi: Employment; Abbott Laboratories. | 385.07 | H.E. Albers: Research Grant; NSF Grant IOS-0923301. |
| 376.09 | H.S. Hain: Employment; PsychoGenics, Inc. S.F. Davis: Employment; PsychoGenics, Inc. A. Hu: Employment; PsychoGenics, Inc. V.V. Istomin: Employment; PsychoGenics, Inc. M.C. Iwunze: Employment; PsychoGenics, Inc. P. Lorello: Employment; PsychoGenics, Inc. S.A. Malekiani: Employment; PsychoGenics, Inc. E.V. Sabath: Employment; PsychoGenics, Inc. V. Alexandrov: Employment; PsychoGenics, Inc. T. Hanania: Employment; PsychoGenics, Inc. | 387.01 | T.A. Milner: Research Grant; HL096571, HL098351, DA08259, AG016765, AG039850, T32 DA007274. |
| 376.10 | W.F. Hoefer: Research Grant; Long Island University Monetary Grant. | 387.14 | T. Yazawa: Employment; Tokyo Metropolitan University. Other Research Support; DVX Co. Ltd. |
| 376.11 | K.M. Gamber: Employment; Sigma Advanced Genetic Engineering Labs. R. Henry: Employment; Sigma Advanced Genetic Engineering Labs. L. Little: Employment; Sigma Advanced Genetic Engineering Labs. A. Chambers: Employment; Sigma Advanced Genetic Engineering Labs. A. McCoy: Employment; Sigma Advanced Genetic Engineering Labs. G. Zhao: Employment; Sigma Advanced Genetic Engineering Labs. D. Ji: Employment; Sigma Advanced Genetic Engineering Labs. X. Cui: Employment; Sigma Advanced Genetic Engineering Labs. E. Weinstein: Employment; Sigma Advanced Genetic Engineering Labs. | 388.08 | H.E. Stevens: Research Grant; APIRE/Wyeth Pharmaceuticals Reserach Fellowship. |
| 376.13 | D.L. Li: Employment; Eli Lilly & Co. M.P. Johnson: Employment; Eli Lilly & Co. J.D. Kennedy: Employment; Eli Lilly & Co. | 389.18 | M.M. Morin: Employment; Eli Lilly and Company. J. Calley: Employment; Eli Lilly and Company. Y. Lu: Employment; Eli Lilly and Company. N. Vrang: Employment; Gubra ApS. S. Paulsen: Employment; Gubra ApS. D. Gehlert: Employment; Eli Lilly and Company. |
| 376.20 | S.S. Negus: Research Grant; R01 NS070715 from NIH. | | |

| ABSTRACT NUMBER | STATEMENT | ABSTRACT NUMBER | STATEMENT |
|--------------------|---|--------------------|---|
| 389.21 | L. Foltz: Employment; Eli Lilly & Co. T. Suter: Employment; Eli Lilly & Co. C. Ruble: Employment; Eli Lilly & Co. C. Pedregal: Employment; Eli Lilly & Co. M. Statnick: Employment; Eli Lilly & Co. P.J. Emmerson: Employment; Eli Lilly & Co. | 399.08 | E. Lee: Research Grant; This research was supported by Basic Science Research Program through the National Research Foundation of Korea (NRF) funded by the Ministry of Education, Science and Technology (2012R1A1A2003124). |
| 389.25 | S. Shah: Research Grant; NIDDK Grant R01DK078049. Other Research Support; Harrison Grant, College of Arts & Sciences Grant. C. Li: Research Grant; NIDDK Grant R01DK078049. | 400.13 | C.F. Ferris: Ownership Interest; Azevan Pharmaceuticals. M. Nedelman: Ownership Interest; Ekam Imaging. |
| 391.01 | Y. Kubota: Research Grant; The Sakamoto Research Institute of Psychopathology. | 401.02 | D.F. Fukushima: Other Research Support; FAPESP, CNPq, CAPES. |
| 391.07 | P. Vrticka: Employment; Center for Interdisciplinary Brain Sciences Research, Stanford University. Research Grant; Swiss National Science Foundation. | 401.10 | Y. Ogura: Research Grant; Grant-in-Aid for JSPS Fellows. |
| 391.09 | A.S. Potter: Research Grant; DOE #SC0001753. Other Research Support; K23 MH079216. | 403.06 | R. Kawakami: Research Grant; CREST. K. Sawada: Research Grant; CREST. A. Sato: Research Grant; CREST. T. Hibi: Research Grant; CREST. Y. Kozawa: Research Grant; CREST. S. Sato: Research Grant; CREST. H. Yokoyama: Research Grant; CREST. T. Nemoto: Research Grant; CREST. |
| 393.06 | A. Reiss: Consultant/Advisory Board; Novartis. | 403.09 | T. Ragan: Employment; Tissuevision, Inc. |
| 393.19 | Y. Chan: Employment; National Taiwan Normal University. Research Grant; Ministry of Education, National Science Council. | 403.11 | K.D. Micheva: Ownership Interest; Aratome. S.J. Smith: Ownership Interest; Aratome. |
| 393.23 | J. Hardy: Employment; Lumos Labs. Ownership Interest; Lumos Labs. D.A. Sternberg: Employment; Lumos Labs. Ownership Interest; Lumos Labs. K. Ballard: Employment; Lumos Labs. Ownership Interest; Lumos Labs. B. Katz: Employment; Lumos Labs. Ownership Interest; Lumos Labs. M. Scanlon: Employment; Lumos Labs. Ownership Interest; Lumos Labs. | 404.03 | T. Sutula: Ownership Interest; NeuroGenomix. |
| 394.10 | N.N. Braga: Research Grant; FAPESP. | 404.15 | H. Chen: Employment; PerkinElmer. A. Miagkov: Employment; PerkinElmer. M. Sathyamoorthy: Employment; perkinelmer. D. Tiruchinapalli: Employment; perkinelmer. |
| 394.11 | D.C. Hipolide: Research Grant; Fapesp, Cnpq and AFIP. | 407 | S. Carmichael: Other Research Support; Biotime. Consultant/Advisory Board; Biogen. |
| 394.20 | G.L. Quirarte: Research Grant; Conacyt. Other Research Support; PAPIIT. | 407.02 | S. Carmichael: Other Research Support; Biotime. Consultant/Advisory Board; Biogen. |
| 394.24 | A.C. Medina Fragoso: Research Grant; Supported by CONACYT (Grant 128259) and PAPIIT (Grant IN208110). | 409 | M. Barrot: Speakers Bureau/Honoraria; Lecture fees from Adir (2011) and from Lilly France (2012). |
| 394.29 | D. Brunner: Employment; PsychoGenics, Inc., Bristol-Myers Squibb. D. Connor: Employment; PsychoGenics, Inc. V. Alexandrov: Employment; PsychoGenics, Inc. V. Istomin: Employment; PsychoGenics, Inc. M. Dolguikh: Employment; PsychoGenics, Inc. P.D. Wes: Employment; Bristol-Myers Squibb. E. Sabath: Employment; PsychoGenics, Inc. K. Cavino: Employment; PsychoGenics, Inc. S. Oakeshott: Employment; PsychoGenics, Inc. T. Hanania: Employment; PsychoGenics, Inc. D.M. Barten: Employment; Bristol-Myers Squibb. N.X. Barretzueta: Employment; Bristol-Myers Squibb. M.K. Ahljiarian: Employment; Bristol-Myers Squibb. | 413.01 | J. Wu: Research Grant; NIH NS36447. |
| 395.07 | M. Perez Carambot: Other Research Support; NIGMS-NIH (5SC1MH086072). A. Vázquez: Other Research Support; NIGMS-NIH (5SC1MH086072). N.Y. Ocasio: Other Research Support; NIGMS-NIH (5SC1MH086072). E.A. Pérez: Other Research Support; NIGMS-NIH (5SC1MH086072). K.P. Betancourt: Other Research Support; NIGMS-NIH (5SC1MH086072). V. Rivera: Other Research Support; NIGMS-NIH (5SC1MH086072). X. Figueroa: Other Research Support; NIGMS-NIH (5SC1MH086072). A. Cálala: Other Research Support; NIGMS-NIH (5SC1MH086072). S. Peña de Ortiz: Other Research Support; NIGMS-NIH (5SC1MH086072). | 413.05 | K.A. Brown: Research Grant; NIH Grant 2R01 NS045853-05. L. Pesce: Research Grant; NIH Grant S10 RR029030-01, NSF grant OCI-1148443. N.G. Hatsopoulos: Research Grant; NIH Grant 2R01 NS045853-05. |
| 396.10 | E.L. Cummins: Research Grant; Natural Sciences and Engineering Research Council of Canada. | 415.10 | F. Terro: Other; Univ Limoges, Laboratory of Histology and molecular Biology, faculty of Medicine and Service d'histologie et de cytogénétique, Hôpital de la Mère et de l'Enfant, Limoges, F-87025, France. M. Paccalin: Other; CHU Poitiers, Service de Gériatrie, CMRR, CIC-P 802, Poitiers, F-86021, France. |
| 397.28 | J.E. Gardner: Employment; Colby College. Research Grant; Colby College, INBRE. | 416.03 | J.L. Jankowsky: Other Research Support; Neuroscience Associates. |
| 398.08 | S. Lee: Research Grant; KIST: 2N34920. | 416.08 | H. Gijssen: Employment; Janssen-R&D. D. Moechars: Employment; Janssen-R&D. |
| 398.14 | D. Velazquez-Lopez: Research Grant; DGAPA-UNAM IN303209, CONACYT 129337. | 416.09 | S.S. Sisodia: Consultant/Advisory Board; Nociris, Inc., and Eisai Research Labs Inc. |
| 398.15 | E.G. Fonseca de la Cruz: Research Grant; CONACYT 129337. Other Research Support; DGAPA-UNAM IN303209. A. Agoitia-Polo: Research Grant; CONACYT 129337. Other Research Support; DGAPA-UNAM IN303209. O. Alvarado-Carrillo: Research Grant; CONACYT 129337. Other Research Support; DGAPA-UNAM IN303209. D.N. Velázquez-Martínez: Research Grant; CONACYT 129337. Other Research Support; DGAPA-UNAM IN303209. | 417.03 | H. Li: Employment; UT southwestern medical center. Research Grant; NIH 1R21NS066114, Christopher & Dana Reeve Foundation (LA1-1002-2). |
| | | 420.02 | S.L. Dickson: Research Grant; EC grant FP7-KBBE-2009-3-245009. |
| | | 423.04 | A. Ruef: Research Grant; NCCR Synapsy, Swiss National Science Foundation. |
| | | 423.05 | R. Hamer: Employment; SAS Institute, AstraZeneca. Ownership Interest; Bristol-Myers Squibb, Amgen, Lilly, Genentech, Proctor and Gamble, Sepracor. Consultant/Advisory Board; Acadia, Allergan, Alkermex, Alphaarma, Cenerx, Columbia U, Concept, Endo, Eli Lilly, EnabledMD, Epix, NeuroPharmaBoost, Novartis, Pepper-Hamilton, Pfizer, Roche (Genentech), Schwartz, Solvey, Sanofi-Aventis, PureTechVentures, J & J, Takeda, Wyeth, NeurogensX, Inc., Abbott. Other; Winston & Strawn. |
| | | 423.12 | M.S. McMurray: Research Grant; NIDA. I. Oguz: Research Grant; NIDA. A.M. Rumble: Research Grant; NIDA. P.R. Makham: Research Grant; NIDA. M.J. Radcliffe: Research Grant; NIDA. Y. Hong: Research Grant; NIDA. Y. Cai: Research Grant; NIDA. H. An: Research Grant; NIDA. J.M. Lauder: Research Grant; NIDA. M. Styner: Research Grant; NIDA, NIMH. J.M. Johns: Research Grant; NIDA, NIMH. |
| | | 426.05 | A. Boscolo: Employment; University of Padova, PADOVA, ITALY, University of Virginia, Charlottesville, VA, USA. |

| ABSTRACT NUMBER | STATEMENT | ABSTRACT NUMBER | STATEMENT |
|--------------------|---|--------------------|--|
| 427.11 | S. Kawase: Employment; Keio University, School of Medicine. Research Grant; Grant-in Aid for Scientific Research. | 439.12 | S. Noell: Employment; Pfizer. P. Galatsis: Employment; Pfizer. Other Research Support; Michael J Fox Foundation. L. Zhang: Employment; Pfizer. E. Needle: Employment; Pfizer. J. Dunlop: Employment; Pfizer. T.T. Wager: Employment; Pfizer. W.D. Hirst: Employment; Pfizer. Other Research Support; Michael J Fox Foundation. |
| 428.04 | B.M. Costa: Other; related patent rights. M.W. Irvine: Other; related patent rights. G. Fang: Other; related patent rights. D.E. Jane: Other; related patent rights. D.T. Monaghan: Other; related patent rights. | 439.14 | P. Galatsis: Employment; Pfizer. J. Henderson: Employment; Pfizer. M.M. Hayward: Employment; Pfizer. L. Zhang: Employment; Pfizer. T.T. Wager: Employment; Pfizer. P.R. Verhoest: Employment; Pfizer. B. Kormos: Employment; Pfizer. R.G. Kurumbail: Employment; Pfizer. M.C. Griffor: Employment; Pfizer. S. Noell: Employment; Pfizer. E. Needle: Employment; Pfizer. P. Loos: Employment; Pfizer. H. Samaroo: Employment; Pfizer. W.D. Hirst: Employment; Pfizer. |
| 428.13 | D. Yan: Employment; Cell. & Mol. Physiol. and CNRR in school of medicine, Yale Univ., New Haven, CT. | 440.02 | M.J. Farrer: Employment; Mayo Clinic. Other Research Support; GlaxoSmithKline, Isis Pharmaceuticals. Ownership Interest; Mayo Foundation. Consultant/Advisory Board; Teva, Genentech, H. Lundbeck A/S, Parkinson's Society Canada, Michael J. Fox Foundation. |
| 429.07 | Y. Chen: Employment; Georgia Health Science University. Y. Tao: Employment; georgia health science university. | 440.17 | J. Goudreau: Research Grant; NIH. |
| 430.07 | E.S. Burstein: Employment; AACADIA Pharmaceuticals Inc. cadia. M.A. Geyer: Ownership Interest; equity interest in San Diego Instruments. | 440.22 | G. Cappelletti: Other Research Support; Fondazione Grigioni per il Morbo di Parkinson, Milano, Italy. |
| 430.15 | M. Brodsky: Other Research Support; NIDA T32 DA00007278. | 440.28 | S. Okamoto: Other; S.A. LIPTON and S. OKAMOTO are inventors on a U.S. patent application filed by their institution related to this work describing the use of MEF2C for neurogenesis from pluripotent stem cells. S.A. Lipton: Research Grant; Calif. Inst. Regen. Med. RC1-00125, P01 ES016738, P30 NS076411. Other; S.A. LIPTON and S. OKAMOTO are inventors on a U.S. patent application filed by their institution related to this work describing the use of MEF2C for neurogenesis from pluripotent stem cells. |
| 432.16 | J. Webber: Employment; Sophion Bioscience, Inc. L.D. Loejknier: Employment; Sophion Bioscience, Inc. A. Lee: Employment; Sophion Bioscience, Inc. S. DeLaura: Employment; Cellular Dynamics International, Inc. C. Mathes: Employment; Sophion Bioscience, Inc. | 441.04 | S. Hermanson: Employment; Life Technologies. C. Lebakken: Employment; Life Technologies. L. Reichling: Employment; Life Technologies. S. Riddle: Employment; Life Technologies. K. Bi: Employment; Life Technologies. |
| 433.06 | S. Jung: Research Grant; National Research Foundation of Korea (NRF) grant funded by the Korea government (MEST) (No. 2010-0013821). | 441.06 | M.J. Farrer: Other Research Support; GlaxoSmithKline, Isis Pharmaceuticals. Consultant/Advisory Board; Teva, Genentech, H. Lundbeck A/S, Parkinson's Society Canada, Michael J. Fox Foundation. Other; • Patents held by Mayo Foundation on IP related to gene discoveries including alpha-synuclein and leucine-rich repeat kinase 2, and inventorship on mouse models made as a Mayo employee. |
| 434.07 | A. Michalon: Employment; Full-time employee of F. Hoffmann-La Roche Ltd. G. Jaeschke: Employment; Full-time employee of F. Hoffmann-La Roche Ltd. J.G. Wettstein: Employment; Full-time employee of F. Hoffmann-La Roche Ltd. L. Lindemann: Employment; Full-time employee of F. Hoffmann-La Roche Ltd. | 442.04 | K. Kusama-Eguchi: Employment; School of Pharmacy, Nihon University. Research Grant; Grant in Aid 22590088, JSPS. |
| 435.03 | S.D. Antic: Research Grant; NIH MH063503, NARSAD Young Investigator. | 442.13 | J. Park: Research Grant; Korea Healthcare technology R&D Project, Ministry for Health, Welfare & Family Affairs, Republic of Korea (A092258), Mid-career Researcher Program through NRF grant funded by the MEST (2011-0028319). Y. Shin: Research Grant; Korea Healthcare technology R&D Project, Ministry for Health, Welfare & Family Affairs, Republic of Korea (A092258), Mid-career Researcher Program through NRF grant funded by the MEST (2011-0028319). J. Cho: Research Grant; Korea Healthcare technology R&D Project, Ministry for Health, Welfare & Family Affairs, Republic of Korea (A092258), Mid-career Researcher Program through NRF grant funded by the MEST (2011-0028319). S. Jeun: Research Grant; Korea Healthcare technology R&D Project, Ministry for Health, Welfare & Family Affairs, Republic of Korea (A092258). M. Lee: Research Grant; Korea Healthcare technology R&D Project, Ministry for Health, Welfare & Family Affairs, Republic of Korea (A092258), Mid-career Researcher Program through NRF grant funded by the MEST (2011-0028319). |
| 435.08 | D. Pálfi: Employment; Femtonics Kft. G. Katona: Employment; Femtonics Kft. Ownership Interest; Femtonics Kft. G. Szalay: Employment; Femtonics Kft. B. Rózsa: Ownership Interest; Femtonics Kft. | 442.14 | L.N. Benedict: Research Grant; Lake Superior State University Undergraduate Research Committee. |
| 436.03 | K.S. Kroker: Employment; Boehringer Ingelheim Pharma GmbH & Co. KG. B. Sommer: Employment; Boehringer Ingelheim Pharma GmbH & Co. KG. | 442.25 | A.A. Asuni: Research Grant; Alzheimer's Association NIRG-10-173233. M. Sadowski: Research Grant; NIH/NIA (R01 AG031221, K02 AG034176). |
| 437.01 | Q. Ma: Research Grant; AT003008 (G.M.C.), NIA AG16570 (G.M.C.), AG13471 (G.M.C.), U0128583 (S.A.F.), AG021975 (S.A.F.), Alzheimer's Association NIRG-07-59659 (QL.M.), UCLA ADRC Easton Discovery Program. Easton Translational Center for Alzheimer, UCLA. UCLA Older. Americans Independence Center, NIH/NIA Grant P30-AG028748. | 443.02 | K. Johnson: Employment; MediciNova. |
| 437.06 | R. Brandt: Consultant/Advisory Board; Consultant, KineMed Inc. | | |
| 437.15 | W.J. Goux: Other Research Support; University of Texas at Dallas. S.R. D'Mello: Research Grant; NIH. G. Breen: Other Research Support; University of Texas at Dallas. | | |
| 438.01 | P.R. Sanberg: Ownership Interest; Co-founder, Saneron CCEL Therapeutics, Inc. Other; Inventor on a USF patent application. J. Tan: Consultant/Advisory Board; Consultant, Saneron CCEL Therapeutics, Inc. Other; Inventor on a USF patent application. | | |
| 438.07 | J. Grimm: Ownership Interest; Neurimmune Therapeutics AG, Schlieren, Switzerland. C. Hock: Ownership Interest; Neurimmune Therapeutics AG, Schlieren, Switzerland. R. Nitsch: Ownership Interest; Neurimmune Therapeutics AG, Schlieren, Switzerland. | | |
| 439.01 | E. Needle: Employment; Pfizer. S. Noell: Employment; Pfizer. Y. Chen: Employment; Pfizer. H. Samaroo: Employment; Pfizer. P. Loos: Employment; Pfizer. G. Luerman: Employment; Pfizer. Y. Lu: Employment; Pfizer. S. Steyn: Employment; Pfizer. B. Wang: Employment; HD Biosciences. F. Zheng: Employment; HD Biosciences. K. Fisher: Employment; Pfizer. T. Wager: Employment; Pfizer. J. Henderson: Employment; Pfizer. P. Galatsis: Employment; Pfizer. W.D. Hirst: Employment; Pfizer. | | |

- 443.05 **G. Zhao:** Employment; Sigma-Aldrich. **R. Henry:** Employment; Sigma-Aldrich. **L. Little:** Employment; Sigma-Aldrich. **A. Chambers:** Employment; Sigma-Aldrich. **A. McCoy:** Employment; Sigma-Aldrich. **Y. Wu:** Employment; Sigma-Aldrich. **J. Warren:** Employment; Sigma-Aldrich. **A. Brown:** Employment; Sigma-Aldrich. **D. Ji:** Employment; Sigma-Aldrich. **C. McGregor:** Employment; Sigma-Aldrich. **J. Books:** Employment; Sigma-Aldrich. **K.M. Gamber:** Employment; Sigma-Aldrich. **E. Weinstein:** Employment; Sigma-Aldrich. **X. Cui:** Employment; Sigma-Aldrich.
- 443.16 **M.W. Weiner:** Other Research Support; M.W.W. owns stock options for Synarc, Elan. Organizations contributing to the Foundation for the US NIH and thus to the National Institute on Aging (NIA)-funded ADNI project.
- 444.17 **A. Kumar:** Employment; MindSpec Inc. Other; Simons Foundation. **I. Menashe:** Employment; MindSpec Inc. Other; Simons Foundation. **W. Pereanu:** Employment; MindSpec Inc. Other; Simons Foundation. **S. Banerjee-Basu:** Employment; MindSpec Inc. Other; Simons Foundation.
- 444.24 **J. Veenstra-VanderWeele:** Research Grant; Seaside, Novartis, Roche.
- 444.25 **V.X. Yuan:** Employment; University of Florida. Research Grant; CDMRP(DoD) Grant AR093546.
- 444.27 **G. Tang:** Employment; Columbia Medical Center. Research Grant; Simons Foundation.
- 444.29 **T. Ohkawara:** Research Grant; Grant-in-Aid for Young Scientists (B).
- 445.01 **J. An:** Employment; Georgetown University Medical Center, Pharmacology and Physiology.
- 445.04 **D.G. Smith:** Employment; Pfizer Worldwide Research and Development.
- 445.05 **C.S. Rex:** Employment; Afraxis Inc. **S. Duron:** Employment; Afraxis Inc. **T. Banke:** Employment; Afraxis Inc. **D. Campbell:** Employment; Afraxis Inc.
- 445.16 **C. Gross:** Other; CG is co-inventor on patent application PCT/US2010/055387. **G.J. Bassell:** Other; GB is co-inventor on patent application PCT/US2010/055387.
- 445.18 **A. Michalon:** Employment; F. Hoffman-La Roche. **M. Sidorov:** Employment; MIT. **T.M. Ballard:** Employment; F. Hoffmann-La Roche. **L. Ozmen:** Employment; F. Hoffmann-La Roche. **W. Spooren:** Employment; F. Hoffmann-La Roche. **J.G. Wettstein:** Employment; F. Hoffmann-La Roche. **G. Jaeschke:** Employment; F. Hoffmann-La Roche. **M.F. Bear:** Employment; MIT. Research Grant; NICHD. Ownership Interest; Seaside Therapeutics. **L. Lindemann:** Employment; F. Hoffmann-La Roche.
- 445.20 **M.J. Shumway:** Employment; Seaside Therapeutics, Inc. **C.S. Henderson:** Employment; Seaside Therapeutics, Inc. **C. Brynczka:** Employment; Seaside Therapeutics, Inc. **F.R. Postma:** Employment; Seaside Therapeutics, Inc. **M.M. Corlew:** Employment; Seaside Therapeutics, Inc. **R. Sanchez-Ponce:** Employment; Seaside Therapeutics, Inc. **A.M. Healy:** Employment; Seaside Therapeutics, Inc. **R.S. Hammond:** Employment; Seaside Therapeutics, Inc.
- 445.25 **S. Kedia:** Research Grant; Pfizer Worldwide Research and Development. **R.H. Ring:** Employment; Pfizer Worldwide Research and Development. **D. Stephenson:** Employment; Pfizer worldwide research and development. **D. Smith:** Employment; Pfizer Worldwide Research and Development. **S. O'Neill:** Employment; Pfizer Worldwide Research and Development. **S. Chattarji:** Research Grant; Pfizer Worldwide Research and Development.
- 446.07 **K.A. Scorpio:** Other Research Support; Regeneron Pharmaceuticals. **S.D. Croll:** Employment; Regeneron Pharmaceuticals.

- 446.08 **M. Addis:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command. **M.A. Furtado:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command. **K. Bailey:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command. **M. Hill:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command. **F. Rossetti:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command. **S.A. VanAlburt:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command. **A.A. Edwards:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command. **C.A. Riccio:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command. **J.R. Andrist:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command. **J.B. Long:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command. **D.L. Yourick:** Employment; Walter Reed Army Institute of Research. Research Grant; Military Operational Medicine Research Program, U.S. Army Medical Research and Materiel Command.
- 446.14 **S. Stamboulia:** Employment; University Joseph Fourier Grenoble I. Research Grant; INSERM. Other Research Support; 'Fonds Unique Interministériel', France (RHENEPI project). **T. Chabrol:** Employment; INSERM. Research Grant; 'Fonds Unique Interministériel', France (RHENEPI project). **A. Laharie:** Employment; INSERM. **C. Bouyssière:** Employment; Synapcell. Research Grant; 'Fonds Unique Interministériel', France (RHENEPI project). **C. Roucard:** Employment; Synapcell. Research Grant; 'Fonds Unique Interministériel', France (RHENEPI project). **A. Depaulis:** Employment; INSERM. Research Grant; 'Fonds Unique Interministériel', France (RHENEPI project).
- 447.07 **K.R. Jenks:** Employment; Dartmouth. Research Grant; NIH. **G.L. Holmes:** Employment; Dartmouth. Research Grant; NIH.
- 448.10 **A.B. Alex:** Employment; University of Utah. Research Grant; NIH. **H.S. White:** Employment; University of Utah. Research Grant; NIH.
- 449.06 **M. Shino:** Research Grant; Grant-in-Aid for Scientific Research.
- 449.09 **B.G. Frenguelli:** Consultant/Advisory Board; Sarissa Biomedical.
- 449.10 **X. Ren:** Employment; Department of Neurology, LSUHSC. Research Grant; The National Institutes of Health. Other Research Support; National Institute of Neurological Disorders and Stroke. **H. Hu:** Employment; Department of Neurology, LSUHSC Shreveport, LA. Research Grant; The National Institutes of Health. Other Research Support; The National Institute of Neurological Disorders and Stroke. **L. Cui:** Employment; Department of Neurology, LSUHSC Shreveport, LA. Research Grant; The National Institutes of Health. Other Research Support; The National Institute of Neurological Disorders and Stroke. **L. Zhao:** Employment; Department of Neurology, LSUHSC Shreveport, LA. Research Grant; The National Institutes of Health. Other Research Support; The National Institute of Neurological Disorders and Stroke.

| ABSTRACT NUMBER | STATEMENT | ABSTRACT NUMBER | STATEMENT |
|--------------------|--|--------------------|--|
| 449.13 | R. Shi: Employment; University of Manitoba. Research Grant; Canadian Institutes of Health Research(CIHR), Manitoba Health Research Council(MHRC), Manitoba Institute of Child Health(MICH), Canadian Stroke Network(CSN). Other Research Support; Faculty of Graduate Studies, University of Manitoba, Department of Human Anatomy and Cell Science, University of Manitoba, Faculty of Medicine, University of Manitoba. Consultant/Advisory Board; Faculty of Graduate Studies Advisory Committee, University of Manitoba. J. Kong: Employment; University of Manitoba. Research Grant; CIHR, MHRC, MICH, CSN. Other Research Support; Department of Human Anatomy and Cell Science, University of Manitoba, Faculty of Medicine, University of Manitoba. | 453.21 | E. Hawken: Research Grant; Ontario Mental Health Foundation. J. Reynolds: Research Grant; Ontario Mental Health Foundation. R. Beninger: Research Grant; Ontario Mental Health Foundation. |
| 450.17 | T. Lam: Employment; Neuralstem, Inc. M.P. Hefferan: Employment; Neuralstem, Inc. D.M. Quach: Employment; Neuralstem, Inc. S. Wu: Employment; Neuralstem, Inc. D. Lee: Employment; Neuralstem, Inc. K.L. Hayama: Employment; Neuralstem, Inc. M.C. Wu: Employment; Neuralstem, Inc. T. Hazel: Employment; Neuralstem, Inc. K. Johe: Employment; Neuralstem, Inc. | 453.22 | E. Schenker: Employment; Servier Research Institute. M. Spedding: Employment; Servier Research Institute. |
| 450.23 | H. Lee: Research Grant; This work was supported by Mid-career Researcher Program through the NRF grant funded by the MEST (20110027608). | 453.24 | R. Schwarcz: Research Grant; Mitsubishi-Tanabe and Bristol-Myers Squibb. |
| 451.04 | Y. Zong: Research Grant; P50AT006273. J. Jiang: Research Grant; P50AT006273. D. Chuang: Research Grant; P50AT006273. A. Simonyi: Research Grant; P50AT006273. G. Sun: Research Grant; P50AT006273. | 455.05 | A.H. Rezvani: Other; Patent pending. K.J. Kellar: Other; patent pending. Y. Xiao: Other; patent pending. V.M. Yenugonda: Other; patent pending. M. Paige: Other; patent pending. M. Brown: Other; patent pending. E.D. Levin: Other; Patent pending. |
| 451.08 | J.A. Zombeck: Employment; Biomodels LLC. | 456.04 | N.E. Goeders: Ownership Interest; Embera NeuroTherapeutics, Inc. Consultant/Advisory Board; Embera NeuroTherapeutics, Inc. |
| 452.06 | T. Berdyjeva: Employment; Janssen LLC. J. Shoblock: Employment; Janssen LLC. L. Aluisio: Employment; Janssen LLC. N. Welty: Employment; Janssen LLC. I. Fraser: Employment; Janssen LLC. B. Shireman: Employment; Janssen LLC. N. Carruthers: Employment; Janssen LLC. T. Lovenberg: Employment; Janssen LLC. P. Bonaventure: Employment; Janssen LLC. | 456.10 | S. Li: Research Grant; the Department of Education of China (no. 20090001120132), Special Fund for Provincial University of Fujian Provincial Department of Education (no. JK2010026), Natural Science Foundation of Fujian Province (no. 2010J01174). |
| 452.09 | V. Benade: Employment; SUVEN LIFE SCIENCES LTD. V. Kandikere: Employment; SUVEN LIFE SCIENCES LTD. G. Bhyrapuneni: Employment; Suven Life Sciences Ltd. S. Irappanavar: Employment; Suven Life Sciences Ltd. V. Kanamarlapudi: Employment; Suven Life Sciences Ltd. A. Das: Employment; Suven Life Sciences Ltd. L. Manjunath: Employment; Suven Life Sciences Ltd. R. Nirogi: Employment; Suven Life Sciences Ltd. | 457.01 | J.L. Vassileva: Research Grant; R01DA02421. |
| 452.13 | S. Grignon: Research Grant; Unrestricted grant from Novartis Pharma Canada. | 459.05 | B. Gonzalez: Employment; Postdoctoral Fellowship Award, Bunge y Born Foundation. |
| 452.15 | B.L. Roth: Consultant/Advisory Board; Merck, GlaxoSmithKline, Amgen. M.G. Caron: Other Research Support; Lundbeck A/G USA, Forrest Laboratories, Hoffmann-La Roche. | 460.17 | G. Narula: Research Grant; European Union ERC-2010 AdG 268911. |
| 453.01 | C.G. Summers: Research Grant; National Organization for Albinism and Hypopigmentation, research support. Speakers Bureau/Honoraria; BioMarin, honorarium and travel for lectures. Consultant/Advisory Board; McKesson, consultant. | 460.30 | J.R. Barchi: Research Grant; NSF. J.A. Simmons: Employment; Brown University. J.E. Gaudette: Employment; United States Navy. |
| 453.05 | N. Walton: Employment; Astellas Research Institute of America LLC. M. Matsumoto: Employment; Astellas Research Institute of America LLC. | 461.01 | C.D. Woody: Research Grant; NIH. Other Research Support; UCLA Academic Senate. |
| 453.15 | D.J. Lodge: Research Grant; NARSAD. Other Research Support; Hogg Foundation. | 461.10 | M.L. Hastings: Ownership Interest; patent pending. F. Rigo: Employment; Isis Pharmaceuticals. Ownership Interest; patent pending. |
| 453.16 | Q. Chen: Employment; Astellas Research Institute of America LLC. Other Research Support; Astellas Research Institute of America LLC. S. Miyake: Employment; Astellas Research Institute of America LLC. J.H. Kogan: Employment; Astellas Research Institute of America LLC. N.M. Walton: Employment; Astellas Research Institute of America LLC. R. Shin: Employment; Astellas Research Institute of America LLC. A.K. Gross: Employment; Astellas Research Institute of America LLC. C.L. Heusner: Employment; Astellas Research Institute of America LLC. K. Tajinda: Employment; Astellas Research Institute of America LLC. K. Tamura: Employment; Astellas Research Institute of America LLC. M. Matsumoto: Employment; Astellas Research Institute of America LLC. | 463.23 | L. Magrou: Employment; INSERM U846, Stem-cells and Brain Research Institute. Research Grant; Region Rhône-Alpes CIBLE 11-0108. Other Research Support; ANR-11-BSV4-0051. Other; LabEx CORTEX. |
| | | 464.11 | H.K. Ko: Employment; Johns Hopkins University. |
| | | 465.13 | Y. Wang: Employment; University of Texas Health Science Center in Houston. Research Grant; James S. McDonnell Foundation, Pew Scholars Program. V. Dragoi: Employment; University of Texas Health Science Center in Houston. Research Grant; James S. McDonnell Foundation, Pew Scholars Program. |
| | | 466.02 | X. Chen: Employment; Newcastle University. Research Grant; Medical Research Council. M. Sanayei: Employment; Newcastle University. Research Grant; Medical Research Council. A. Thiele: Employment; Newcastle University. Research Grant; Medical Research Council. |
| | | 467.10 | M.A. Khoei: Employment; Institute de Neurosciences de La Timone (INT) - CNRS, Aix Marseille University. Research Grant; European Community's Seventh Framework Programm under grant agreement no 237955 (FACETS-ITN). L.U. Perrinet: Employment; Institute de Neurosciences de La Timone (INT) - CNRS, Aix Marseille University. G.S. Masson: Employment; Institute de Neurosciences de La Timone (INT) - CNRS, Aix Marseille University. |
| | | 467.15 | S. Sefati: Employment; Johns Hopkins University. Research Grant; ONR BAA 11-001. M.S. Madhav: Employment; Johns Hopkins University. Research Grant; ONR BAA 11-001. E.D. Tytell: Employment; Johns Hopkins University. Research Grant; ONR BAA 11-001. W.K. Page: Employment; Johns Hopkins University. Research Grant; ONR BAA 11-001. C.J. Duffy: Employment; University of Rochester. Research Grant; ONR BAA 11-001. N.J. Cowan: Employment; Johns Hopkins University. Research Grant; ONR BAA 11-001. |
| | | 467.17 | A. Yazdanbakhsh: Employment; Research Assistant Professor, Boston University. Research Grant; NSF SBE-0354378 and OMA-0835976. Other Research Support; Travel support by Center for Computational Neuroscience and Neural Technology (CompNet), Boston University. |

| ABSTRACT NUMBER | STATEMENT | ABSTRACT NUMBER | STATEMENT |
|--------------------|--|--------------------|---|
| 470.20 | L. Ling: Other Research Support; Cochlear Corporation. K. Nie: Other Research Support; Cochlear Corporation. J.T. Rubinstein: Other Research Support; Cochlear Corporation. J.O. Phillips: Other Research Support; Cochlear Corporation. | 475.19 | S. Uzun: Research Grant; TUBITAK, Turkey. |
| 471.04 | R.S. Broide: Employment; Allergan, Inc. C. Rheume: Employment; Allergan, Inc. K.R. Aoki: Employment; Allergan, Inc. J. Francis: Employment; Allergan, Inc. | 475.20 | H. Onoe: Research Grant; the Molecular Imaging Program on "Research Base for Exploring New Drugs" from the Ministry of Education, Culture, Sports, Science and Technology (MEXT) and Grant-in-Aid for Scientific Research (B). Y. Nishimura: Research Grant; JST, PRESTO. |
| 471.05 | C. Rheume: Employment; Allergan, Inc. G.S. Nicholson: Employment; Allergan, Inc. J. Rubino: Employment; Allergan, Inc. M.S. Washburn: Employment; Allergan, Inc. K.R. Aoki: Employment; Allergan, Inc. J. Francis: Employment; Allergan, Inc. R.S. Broide: Employment; Allergan, Inc. | 475.21 | A. McDonough: Employment; University of California, Davis. Research Grant; CIRM Stem Cell Training Program. V. Martínez Cerdeño: Employment; University of California, Davis, Institute of Pediatric Regenerative Medicine, Shriners Hospitals for Children. |
| 471.11 | M.I. Nemenov: Employment; Lasmed LLC. Research Grant; R44 NS046951, R44 DA016840. | 477.05 | V. Uebele: Employment; Merck & Co., Inc. J. Renger: Employment; Merck & Co., Inc. |
| 471.15 | D. Levy: Employment; Harvard medical school. Research Grant; NIH-NS077882. Other Research Support; National Headache foundation. | 477.06 | G.Q. Zhao: Employment; Stanford University. Research Grant; National Institutes of Health 1 R21 NS057488, Ruth L. Kirschstein National Research Service Award (NRSA F32), Stanford BioX award, Stanford Medical school Dean's fellowship. J.R. Raymond: Employment; Stanford University. Research Grant; National Institutes of Health 1 R21 NS057488, Stanford BioX award. |
| 472.01 | A. Charles: Other Research Support; MAP Pharmaceuticals. Consultant/Advisory Board; Amgen, Bristol Myers Squibb, MAP Pharmaceuticals, eNeura, AGA Medical, Monosol Rx, Zogenix. | 478.11 | Z. Wang: Employment; The Pennsylvania State University. |
| 472.02 | M.P. Johnson: Employment; Eli Lilly & Company. M.G. Chambers: Employment; Eli Lilly & Company. S.P. Hollinshead: Employment; Eli Lilly & Company. K. Knopp: Employment; Eli Lilly & Company. S. Iyengar: Employment; Eli Lilly & Company. R. Vasudeva: Employment; Eli Lilly & Company. P.C. Astles: Employment; Eli Lilly & Company. | 478.28 | D.W. Mang: Research Grant; Canadian Institute of Health Research (CIHR), AUTO21, Canadian Institute for the relief of pain and disability (CIRPD). H.J. Brown: Research Grant; Natural Sciences and Engineering Research Council of Canada. G.P. Siegmund: Employment; MEA Forensic Engineers & Scientist,. J. Blouin: Research Grant; Michael Smith Foundation of Health Research, Canada Foundation for Innovation. |
| 472.11 | J.V. Mulcahy: Ownership Interest; SiteOne Therapeutics. G. Miljanich: Ownership Interest; SiteOne Therapeutics. J. Du Bois: Ownership Interest; SiteOne Therapeutics. | 479.09 | E. Rabin: Employment; New York College of Osteopathic Medicine at New York Institute of Technology. |
| 472.16 | A.Z. Tzabazis: Consultant/Advisory Board; Alexander Tzabazis. D.C. Yeomans: Consultant/Advisory Board; David Yeomans. C. Mari Aparici: Consultant/Advisory Board; Carina Mari Aparice. H. VanBrocklin: Consultant/Advisory Board; Henry VanBrocklin. L. Taber: Other Research Support; Louise Taber. S. Yang: Employment; Stephanie Yang. M. Schneider: Consultant/Advisory Board; M. Bret Schneider. | 480.05 | R. Franklin: Employment; Blackrock Microsystems, LLC. L. Williams: Employment; Blackrock Microsystems, LLC. R. Harrison: Ownership Interest; Intan Technologies, LLC. F. Solzbacher: Ownership Interest; Blackrock Microsystems, LLC. |
| 472.21 | G.C. Koopmans: Employment; Algiax Pharmaceuticals GmbH. J. Opatz: Employment; Algiax Pharmaceuticals GmbH. B. Hasse: Employment; Algiax Pharmaceuticals GmbH. | 480.08 | F. Solzbacher: Ownership Interest; Blackrock Microsystems. |
| 472.22 | B. Hasse: Employment; Algiax Pharmaceuticals GmbH. G. Koopmans: Employment; Algiax Pharmaceuticals GmbH. J. Opatz: Employment; Algiax Pharmaceuticals GmbH. | 480.09 | F. Solzbacher: Other; Florian Solzbacher has commercial interest in Blackrock Microsystems. |
| 473.16 | N. Dmitrieva: Research Grant; Bayer HealthCare Pharmaceuticals. F. Sacher: Employment; Bayer Pharma AG. | 480.11 | R.R. Harrison: Ownership Interest; Intan Technologies, LLC. F. Solzbacher: Ownership Interest; Blackrock Microsystems. |
| 473.17 | B. Feng: Other Research Support; Ironwood Pharmaceuticals, Cambridge, MA, Forest Research Institute, Inc. G.F. Gebhart: Research Grant; Ironwood Pharmaceuticals, Cambridge, MA, Forest Research Institute, Inc. | 480.25 | A.M. Zbrzeski: Research Grant; French National Research Agency ANR-08-MNPS-036-03 (AZ, NL, AB, SR), NIH RO1-EB008578 (RJ). N. Lewis: Research Grant; French National Research Agency ANR-08-MNPS-036-03 (AZ, NL, AB, SR). R. Jung: Research Grant; NIH RO1-EB008578 (RJ). A. Benazzouz: Research Grant; French National Research Agency ANR-08-MNPS-036-03 (AZ, NL, AB, SR). S. Renaud: Research Grant; French National Research Agency ANR-08-MNPS-036-03 (AZ, NL, AB, SR). |
| 473.18 | F. Cruz: Other Research Support; Pfizer, Allergan, Wieth. Consultant/Advisory Board; Astellas, Allergan, Recordati. | 480.28 | D.H. Smith: Ownership Interest; Axonia Medical. |
| 474.10 | S. Tsukada: Employment; NTT corporation. H. Nakashima: Employment; NTT corporation. K. Torimitsu: Employment; NTT corporation. K. Sumitomo: Employment; NTT corporation. | 480.29 | P.R. Kennedy: Ownership Interest; 98% stock in Neural Signals Inc. D. Andreassen: Ownership Interest; 2% stock in Neural Signals Inc. |
| 475.09 | V. Mushahwar: Ownership Interest; Prev Bio Tech, subsidiary of Biomotion. | 481.07 | F. Al-Yawer: Research Grant; Canadian Institute of Health Research (CIHR). H. Anisman: Research Grant; Canadian Institute of Health Research (CIHR). |
| 475.18 | A. Thompson: Employment; Helen Hayes Hospital, Wadsworth Center, NYS Dept. Health, Department of Neurology, Neurological Institute, Columbia University, Department of Biomedical Sciences, State University of New York at Albany. Research Grant; NIH NS69551, Helen Hayes Hospital Foundation, NYS C023685, Helen Hayes Hospital Volunteer Corp. F. Pomerantz: Employment; Helen Hayes Hospital, Department of Neurology, Neurological Institute, Columbia University. J. Wolpaw: Employment; Helen Hayes Hospital, NYS Dept. Health, Wadsworth Center, NYS Dept. Health, Department of Neurology, Neurological Institute, Columbia University, Department of Biomedical Sciences, State University of New York at Albany. Research Grant; NIH NS61823, NIH NS22189. | 482.01 | J.M. Swann: Research Grant; SF IBN-0118344 to JS. |
| | | 483.10 | E.I. Ahmed: Employment; Neuroscience Program, Michigan State University. |
| | | 483.15 | B.E. Eisinger: Research Grant; MH0856427. T.M. Driessen: Research Grant; MH0856427. M.C. Saul: Research Grant; MH0856427. C. Zhao: Research Grant; MH0856427. S.C. Gammie: Research Grant; MH0856427. |
| | | 484.06 | M.A. Vizzard: Research Grant; DK051369, DK060481, DK065989, 5 P30 RR 032135, 8 P30 GM 103498. |
| | | 484.07 | B.M. Girard: Research Grant; DK051369, DK060481, DK065989, P30 RR032135, P30 GM103498. M. Vizzard: Research Grant; DK051369, DK060481, DK065989, P30 RR032135, P30 GM103498. |

| ABSTRACT NUMBER | STATEMENT | ABSTRACT NUMBER | STATEMENT |
|--------------------|--|--------------------|--|
| 484.12 | C.J. Chermansky: Speakers Bureau/Honoraria; Allergan, Astellas. Consultant/Advisory Board; Astellas. M.O. Fraser: Research Grant; Pfizer, Medtronic. Consultant/Advisory Board; Amphora Medical, Physical Optics Corporation. Other; Lipella. | 498.20 | W.A. Carlezon: Other; U.S. Patent 6,528,518; Assignee: McLean Hospital. |
| 484.14 | M.O. Fraser: Research Grant; Pfizer, Medtronic. Consultant/Advisory Board; Amphora Medical, Physical Optics Corporation. Other; Lipella. | 500.05 | M. Spivak: Employment; Comprehensive Pet Therapy. Ownership Interest; Comprehensive Pet Therapy. |
| 484.16 | T. Brink: Employment; Medtronic, Inc. | 501.18 | T. Matsuura: Employment; Tetsuya Matsuura, Junichi Izumi, Mamoru Hioki, Hiroki Nagata, Mitsuyuki Ichinose. Research Grant; Japanese Ministry of Education, Culture, Sports, Science and Technology. J. Izumi: Research Grant; Japanese Ministry of Education, Culture, Sports, Science and Technology. |
| 484.17 | M.A. Vizzard: Research Grant; DK051369, DK060481, DK065989, P30 RR032135, P30 GM103498. G. Mingin: Research Grant; K08DK082759. | 502.12 | M.T. Gilbert: Research Grant; RO1 DA020109. K. Soderstrom: Research Grant; RO1 DA020109. |
| 485.06 | P.L. Johnson: Research Grant; UL1 RR025761, R01 MH52619. A. Shekhar: Research Grant; R01 MH52619. | 502.15 | M.L. Acerbi: Research Grant; NSF. V.P. Bingman: Research Grant; NSF. C.V. Mora: Research Grant; NSF. |
| 485.07 | A. Shekhar: Research Grant; MH 065702, MH 052619, DA021644. A.G. Hohmann: Research Grant; DA021644. | 502.16 | C.V. Mora: Research Grant; NSF. V.P. Bingman: Research Grant; NSF. |
| 485.10 | C. Li: Employment; Emory University. | 504.12 | J. Ross: Employment; Axion Biosystems. Research Grant; R44NS062477. S. Rajaraman: Employment; Axion Biosystems. |
| 485.19 | Y. Ma: Research Grant; Grant-in-Aid for Scientific Research from the Japan Society for the Promotion of Science 23228004. M. Nishihara: Other; Sponsor. | 504.14 | S. Musa: Research Grant; SBO IWT BrainSTaR. D. Prodanov: Research Grant; SBO IWT BrainSTaR. D.K. Balschun: Research Grant; IWT SBO BrainSTaR. |
| 485.21 | D.V. Zaretsky: Research Grant; NIH grant DA026867. Other; Minipumps were provided by DSI and Primetech Corp. M.V. Zaretskaia: Research Grant; NIH grant DA026867. D.E. Rusyniak: Research Grant; NIH grant DA026867. | 504.20 | E. McConnell: Employment; Axion Biosystems. J. Ross: Employment; Axion Biosystems. M.A. McClain: Employment; Axion Biosystems. |
| 486.03 | A. Jimenez-Anguiano: Research Grant; CONACyT # 50633. | 505.03 | F. Mormann: Research Grant; DFG Grant MO 930/4-1. Other Research Support; Ernst Jung Foundation for Science and. |
| 486.05 | G. Griebel: Employment; Sanofi Research & Development. S. Beeske: Employment; Sanofi Research & Development. A. Jacquet: Employment; Sanofi Research & Development. D. Francon: Employment; Sanofi Research & Development. O.E. Bergis: Employment; Sanofi Research & Development. | 505.05 | J.C. Weeks: Ownership Interest; NemaMetrix LLC. S.R. Lockery: Ownership Interest; NemaMetrix LLC. |
| 486.13 | J. Ehlen: Research Grant; National Institutes of Health grants R01NS078410-01, 5U54NS060659; Research Centers in Minority Institutions Grant G12-RR03034, National Center on Minority Health Health Disparities Grant 5S21MD000101. K.N. Paul: Research Grant; National Institutes of Health grants R01NS078410-01, 5U54NS060659; Research Centers in Minority Institutions Grant G12-RR03034, National Center on Minority Health Health Disparities Grant 5S21MD000101. | 505.07 | M. Chiappalone: Research Grant; European Commission FET Young Explorers - BRAIN BOW, grant agr: 284772. F. Difato: Research Grant; European Commission FET Young Explorers - BRAIN BOW, grant agr: 284772. S. Taverna: Research Grant; European Commission FET Young Explorers - BRAIN BOW, grant agr: 284772. P. Massobrio: Research Grant; European Commission FET Young Explorers - BRAIN BOW, grant agr: 284772. T. Levi: Research Grant; European Commission FET Young Explorers - BRAIN BOW, grant agr: 284772. P. Bonifazi: Research Grant; European Commission FET Young Explorers - BRAIN BOW, grant agr: 284772. |
| 486.14 | T. Blutstein: Research Grant; MH091883. P.G. Haydon: Research Grant; NS037585, MH095385. Ownership Interest; PGH is co-founder and President of GliaCure Inc. | 506.03 | T.W. Boonstra: Research Grant; Netherlands Organisation for Scientific Research (NWO 451-10-030). M. Breakspear: Research Grant; Thinking Systems Initiative (ARC TS0669860). |
| 486.29 | J.J. Renger: Employment; Merck Research Laboratories. C.J. Winrow: Employment; Merck Research Laboratories. | 506.04 | J. Lee: Research Grant; Basic Science Research Program (N10110050). |
| 486.30 | J.J. Renger: Employment; Merck Research Laboratories. C.J. Winrow: Employment; Merck Research Laboratories. | 506.05 | H. Tanaka: Research Grant; Hitachi Ltd. |
| 487.07 | T. Lints: Research Grant; NSF IOS-0951277. | 506.06 | J.W. Bohland: Research Grant; 5R01MH084802-02. |
| 488.07 | M. Nicholls: Research Grant; Australian Research Council. | 506.14 | K. Jung: Employment; University of British Columbia, BC Mental Health and Addictions Research Institute. Research Grant; The Mind Foundation of BC, MITACS ELEVATE. T.S. Woodward: Research Grant; The Canadian Institutes of Health Research, The Michael Smith Foundation for Health Research. |
| 488.19 | R.W. Remington: Research Grant; Australian Research Council. J.B. Mattingley: Research Grant; ARC Laureate Fellowship FL110100103. | 506.15 | P. Grange: Research Grant; NIH-NIDA Grant 1R21DA027644-01. |
| 489.01 | M.Z. Koubeissi: Speakers Bureau/Honoraria; UCB, Inc. | 506.20 | G. Thomalla: Research Grant; Else Kröner-Fresenius-Stiftung. |
| 492.20 | A. Reches: Employment; ElMindA. D. Kerem: Consultant/Advisory Board; ElMindA. D. Dickman: Employment; ElMindA. R. Hashmonay: Employment; ElMindA. N. Gal: Employment; ElMindA. I. Laufer: Employment; ElMindA. A.B. Geva: Consultant/Advisory Board; ElMindA. | 506.24 | P.G. Menon: Employment; Carnegie Mellon University. |
| 494.17 | K. Sakai: Research Grant; Funding Program for Next Generation World-Leading Researchers from the JSPS. | 506.26 | H. Harmon: Employment; Pinnacle Technology, Inc. E.L. Akers: Employment; Pinnacle Technology, Inc. D.A. Johnson: Employment; Pinnacle Technology, Inc. Ownership Interest; Pinnacle Technology, Inc. E. Naylor: Employment; Pinnacle Technology, Inc. |
| 497.01 | V. Lopes Dos Santos: Other Research Support; CAPES, CNPq, UFRN, MCTI. S. Ribeiro: Research Grant; CNPq Universal Grant 481351/2011-6, FINEP grant 01.06.1092.00. Other Research Support; CAPES, UFRN, Pew Latin American Fellows Program in the Biomedical Sciences. | 506.29 | J. Xing: Employment; University of Virginia. Research Grant; NSF GRANT 1162449. W.B. Levy: Employment; University of Virginia. Research Grant; NSF GRANT 1162449. T. Berger: Employment; University of Virginia. Research Grant; NSF GRANT 1162449. |
| 497.22 | J.M. Lauwereyns: Research Grant; HFSP RGP2010/0039. | 507.18 | R. Vetter: Ownership Interest; Nauronexus Technologies Inc. D. Kipke: Ownership Interest; NeuroNexus technologies Inc. |
| 497.23 | D.V. Wang: Employment; National Institute on Drug Abuse. Research Grant; the Intramural Research Program of NIDA/NIH. Speakers Bureau/Honoraria; Neurocircuitry of Motivation Section, Behavioral Neuroscience Branch, NIDA, NIH, DHHS. | | |
| 497.27 | A. Manganaro: Employment; IST Austria. J.L. Csicsvari: Speakers Bureau/Honoraria; MRC ANU University of Oxford. | | |

ABSTRACT
NUMBER

STATEMENT

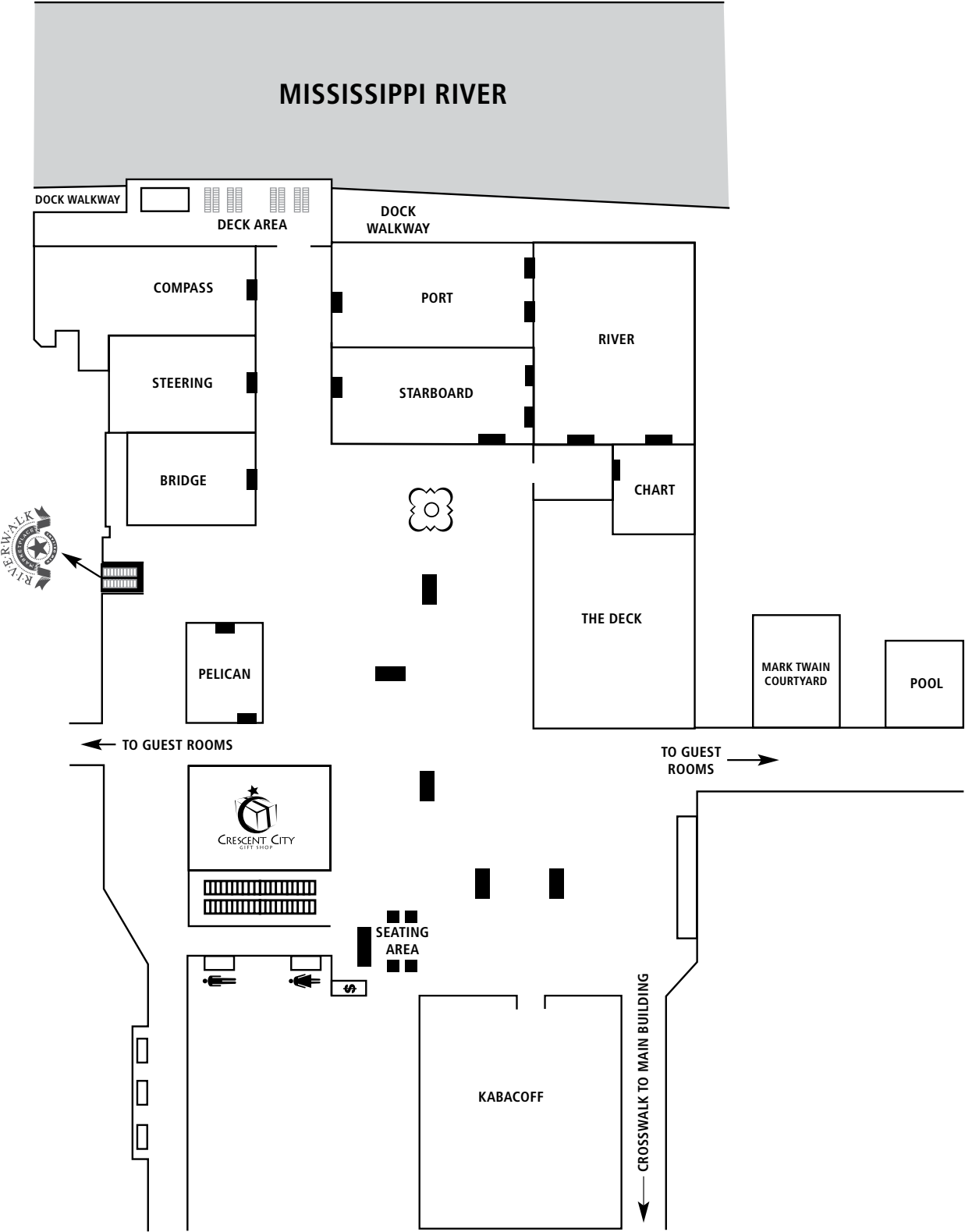
- 507.19 **E.C. Leuthardt:** Ownership Interest; Neuroolutions.
- 507.25 **F. Grieco:** Employment; Noldus Information Technology. **R. Tegelenbosch:** Employment; Noldus Information Technology. **L. Noldus:** Employment; Noldus Information Technology.
- 508.01 **J.T. Góis:** Other Research Support; CAPES, CNPQ, FAPERN, PROPESQ/UFRN. **A.B.L. Tort:** Employment; Federal University of Rio Grande do Norte. Other Research Support; CAPES, CNPQ, FAPERN, PROPESQ/UFRN.
- 508.02 **J.A. Frazier:** Research Grant; Seaside Therapeutics, Roche Pharmaceuticals, Pfizer, Glaxo Smith Kline.
- 508.08 **M. Mechael:** Employment; Alpha Omega Engineering Ltd. Ownership Interest; Equity Position in Alpha Omega Engineering Ltd. **M. Farah:** Employment; Alpha Omega Engineering Ltd. Ownership Interest; Equity Position and ESOP in Alpha Omega Engineering Ltd.
- 508.15 **J. Lecoq:** Consultant/Advisory Board; Inscopix. **M.J. Schnitzer:** Consultant/Advisory Board; Inscopix.

ABSTRACT
NUMBER

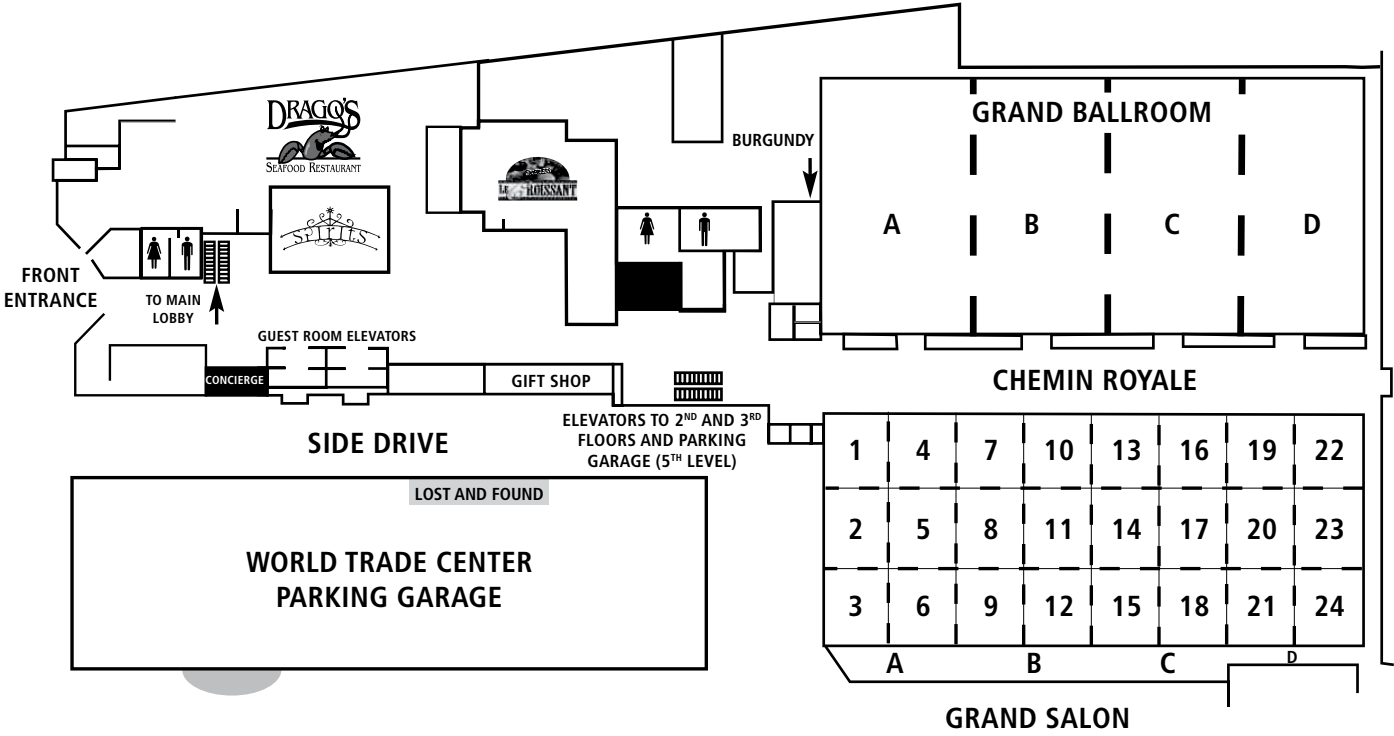
STATEMENT

HOTEL FLOOR PLANS

HILTON – RIVERSIDE

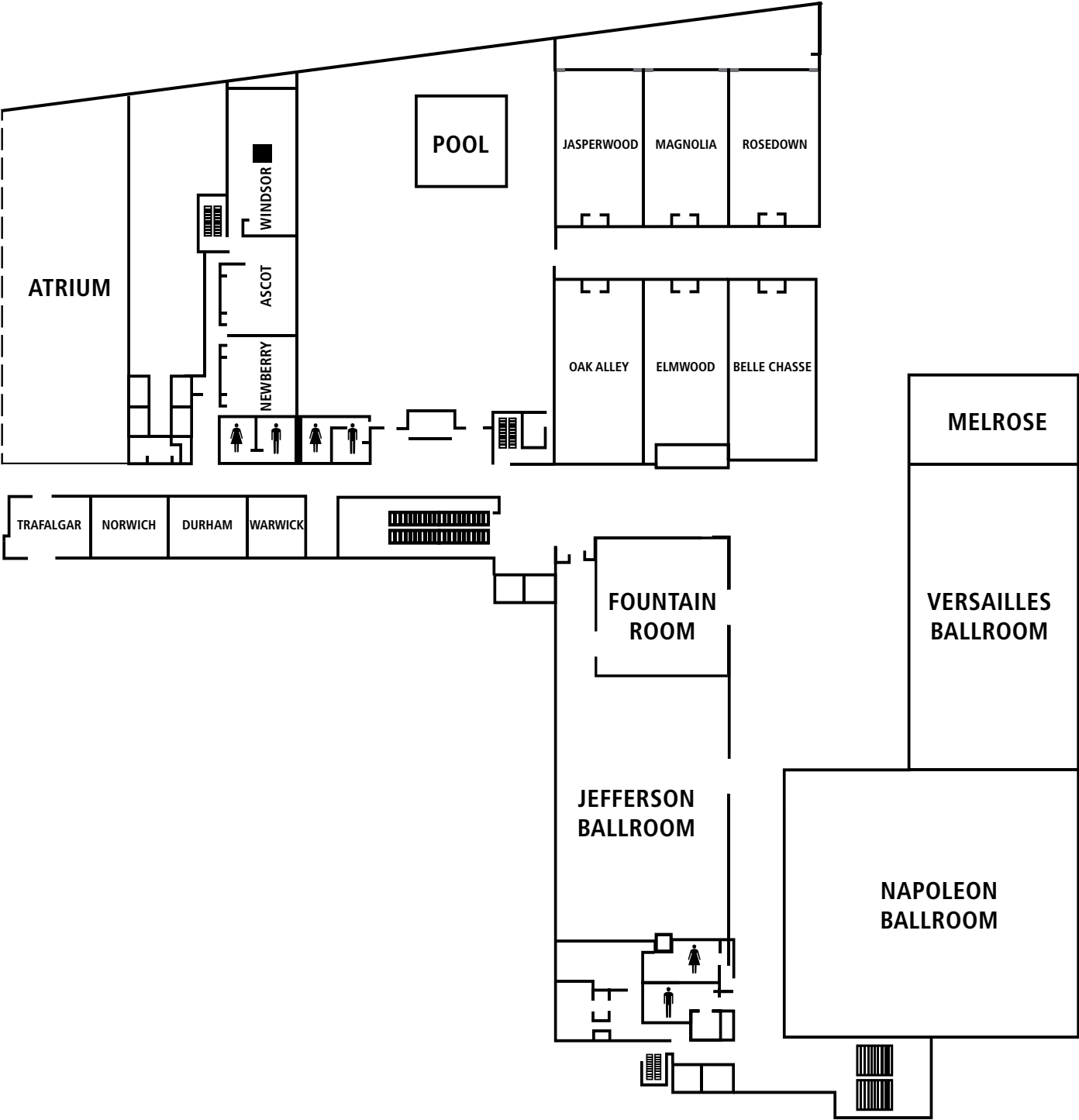


HILTON – STREET LEVEL



HOTEL FLOOR PLANS

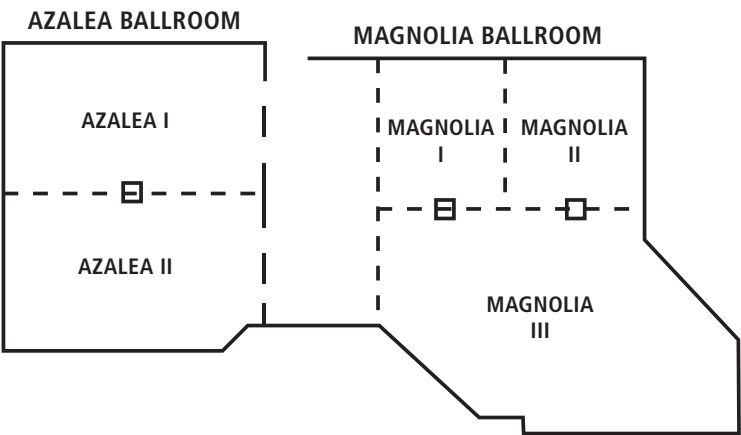
HILTON – THIRD FLOOR



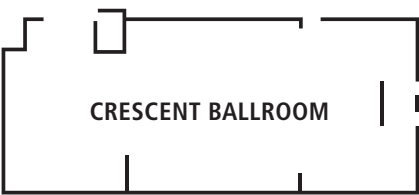
HOTEL FLOOR PLANS

WESTIN AT CANAL PLACE

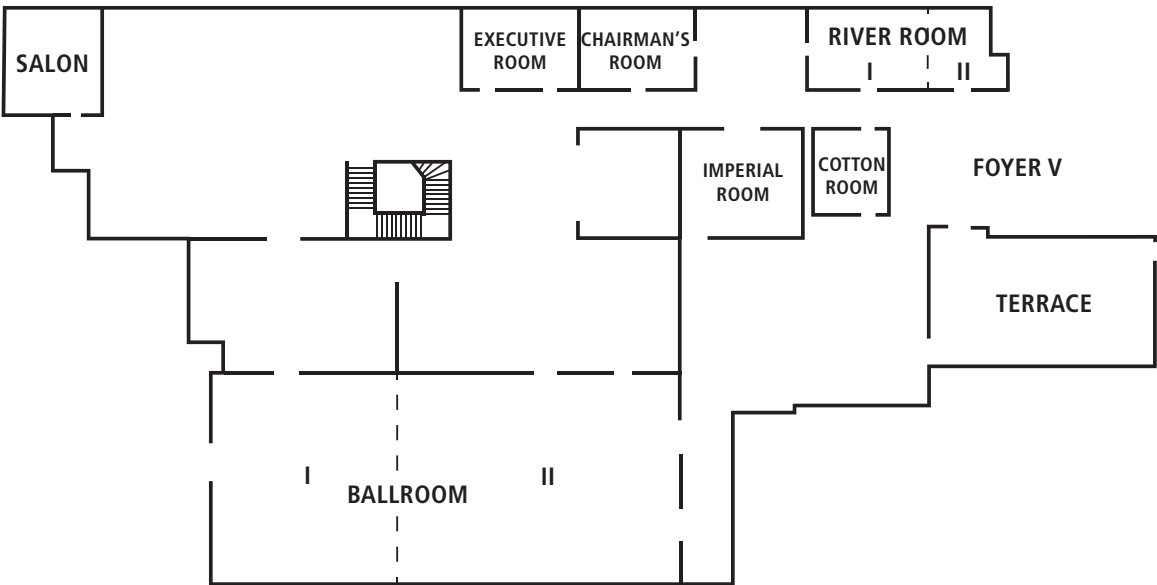
FIRST FLOOR



SECOND FLOOR

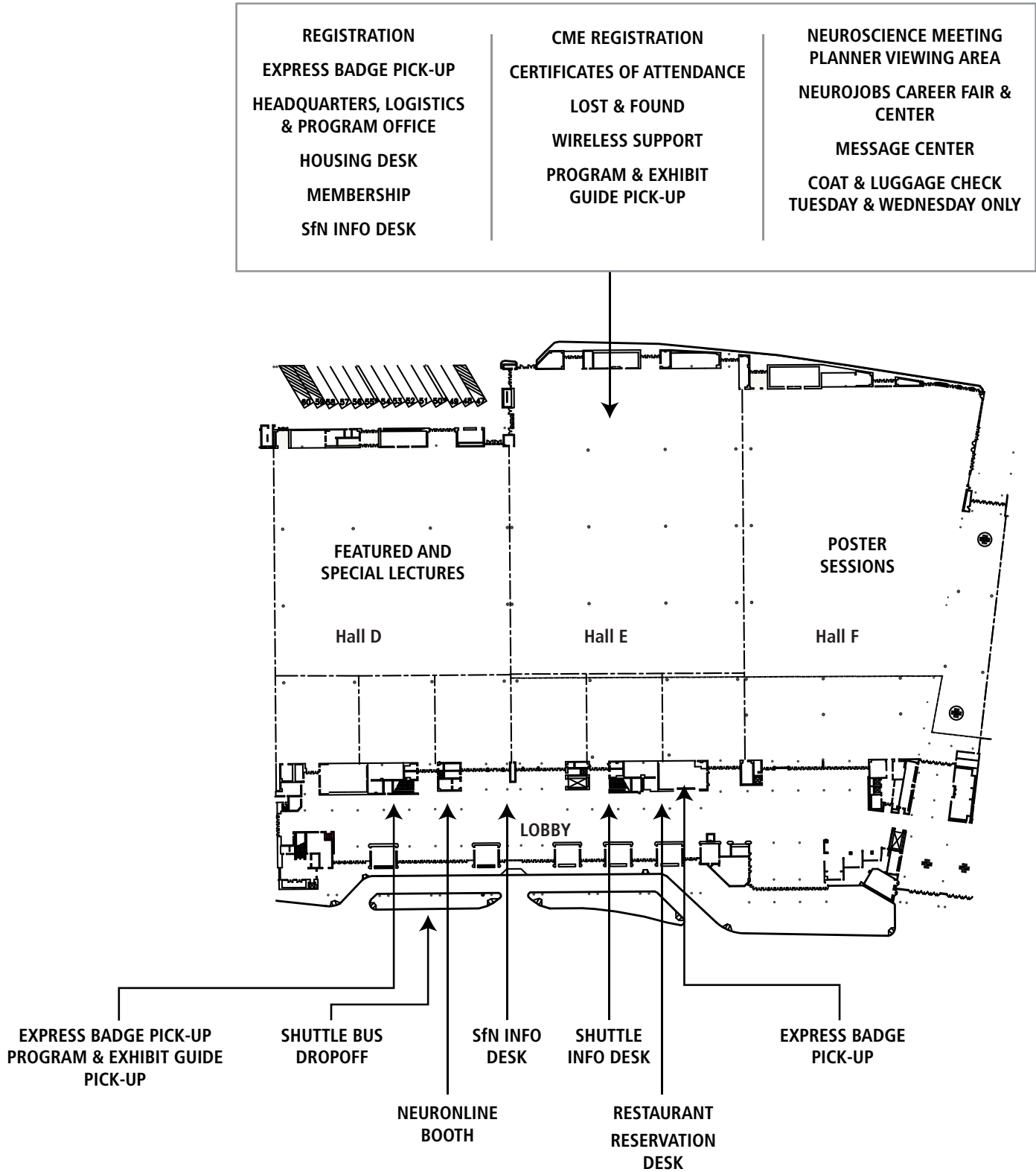


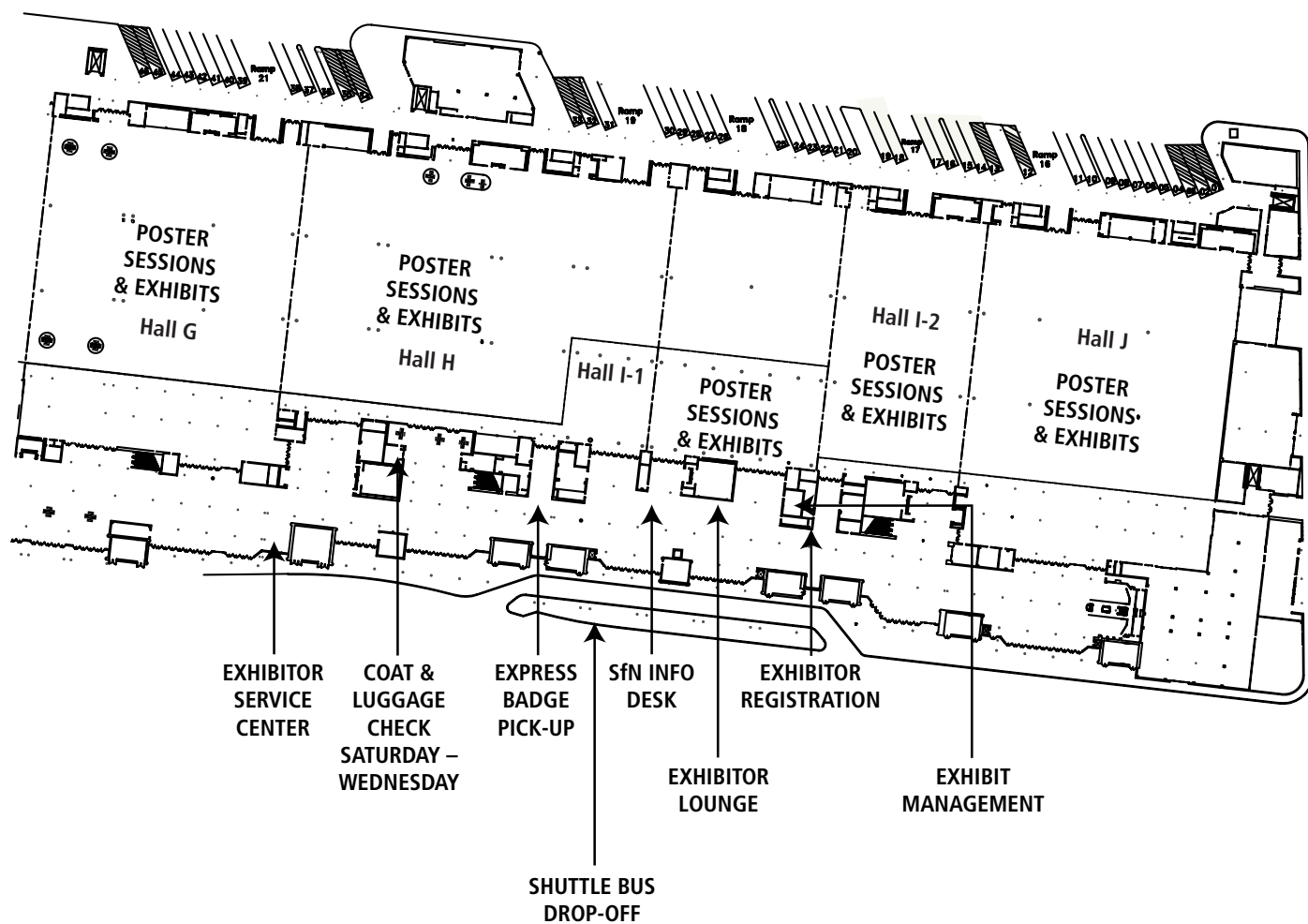
THIRD FLOOR



CONVENTION CENTER FLOOR PLANS

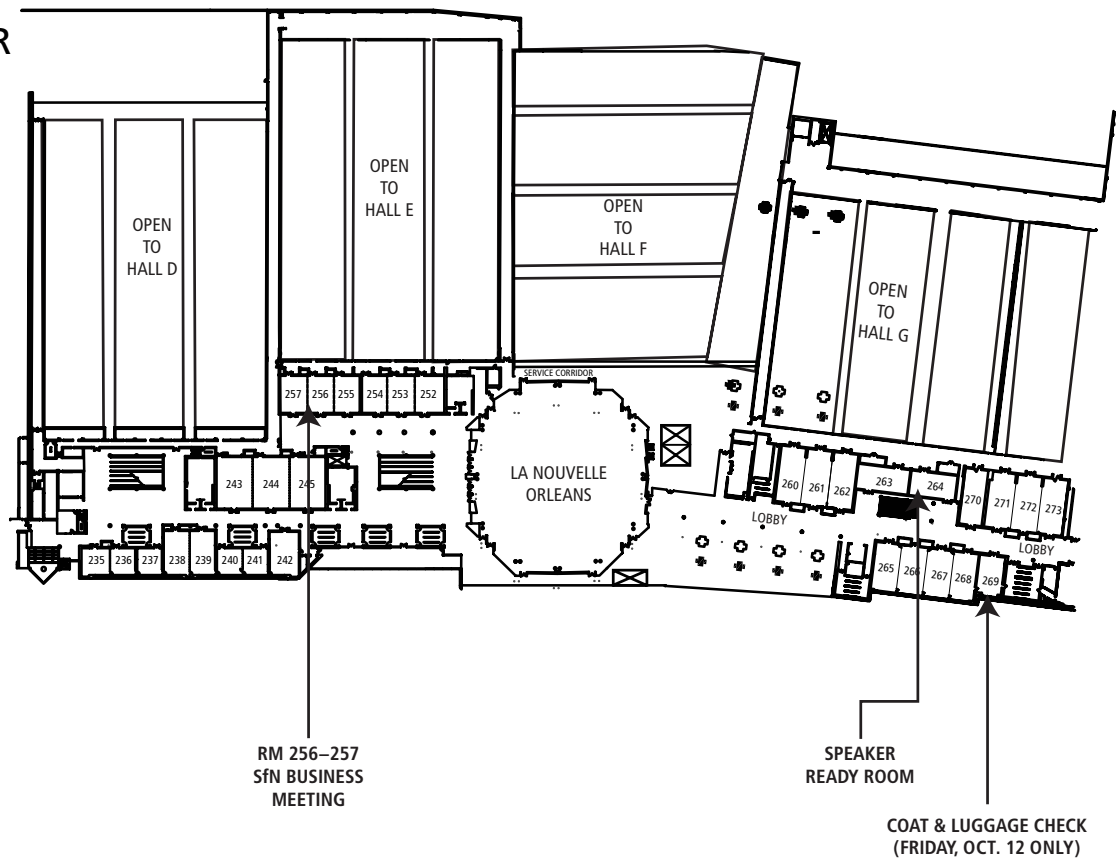
FIRST FLOOR



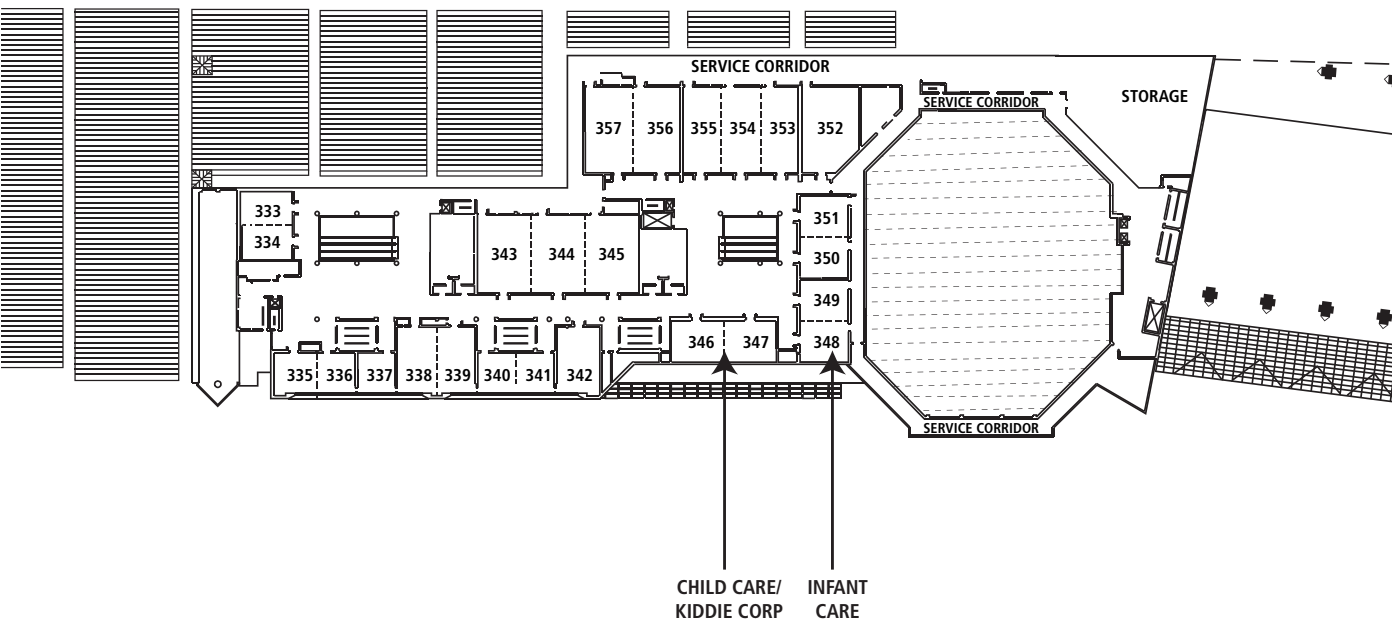


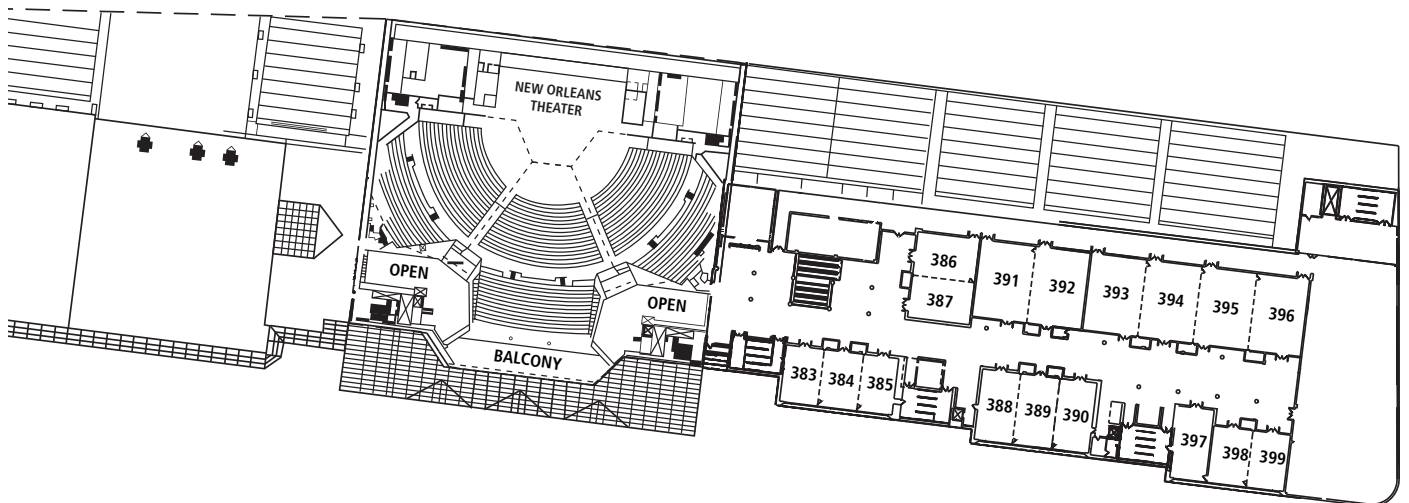
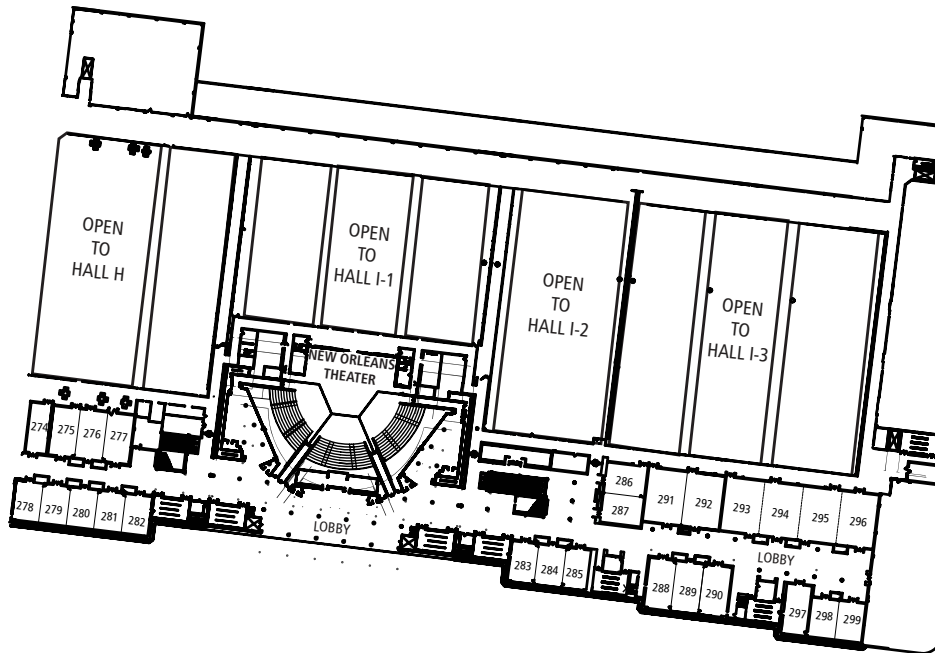
CONVENTION CENTER FLOOR PLANS

SECOND FLOOR



THIRD FLOOR





NEUROSCIENCE 2012—EXHIBITS AND POSTER SESSIONS

Neuroscience 2012 — Exhibits and Poster Sessions

Ernest N. Morial Convention Center: Halls F - J

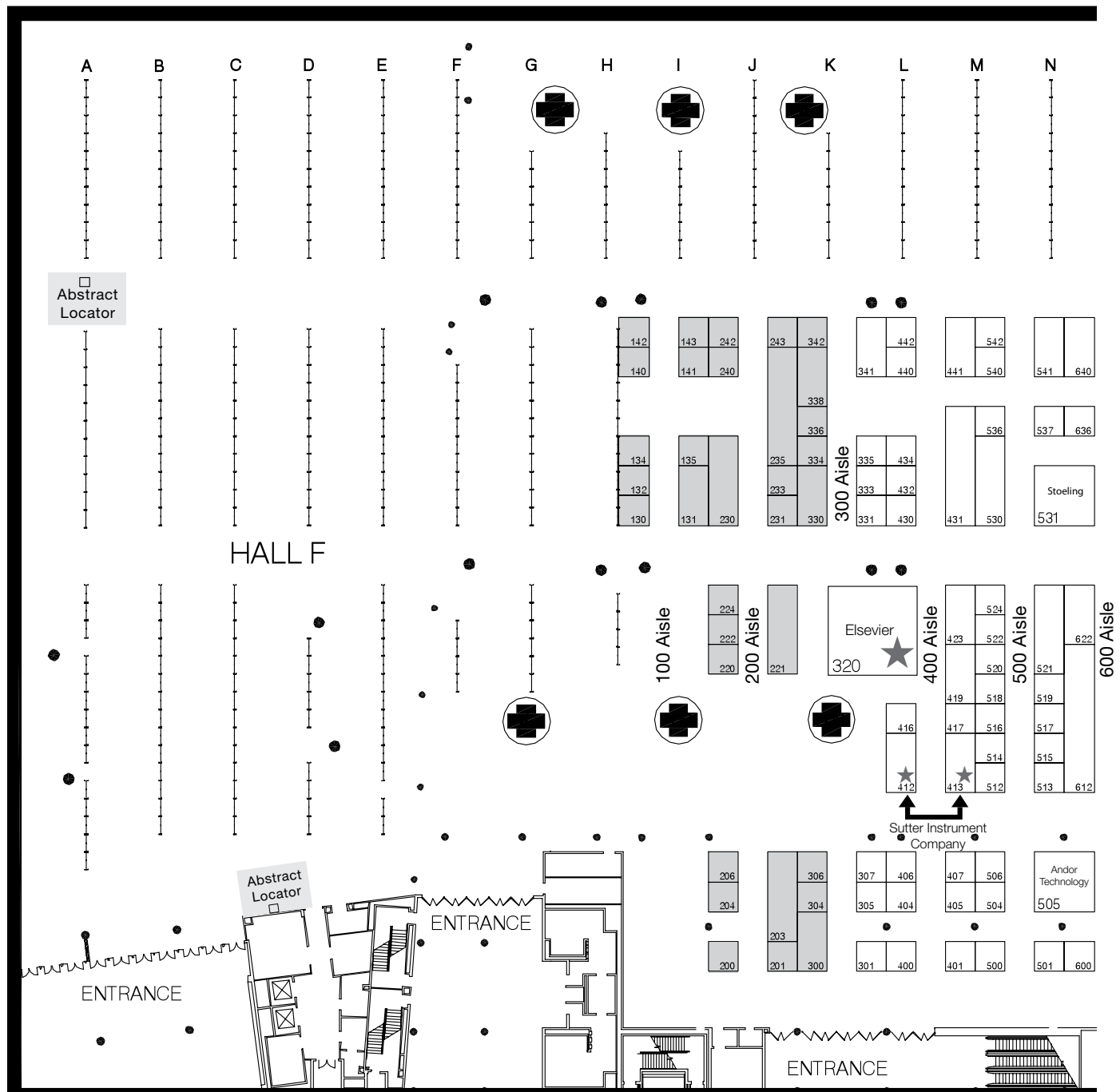
Meeting Dates: October 13–17

Exhibit Dates: October 14–17

Hall entrances open at noon on Saturday, Oct. 13 and at 7 a.m. on Sunday Oct. 14 to Wednesday, Oct. 17 for poster presenters setup.

Poster sessions are open for all attendees at 1 p.m. on Saturday, Oct. 13 and 8 a.m. Sunday, Oct. 14 to Wednesday Oct. 17.

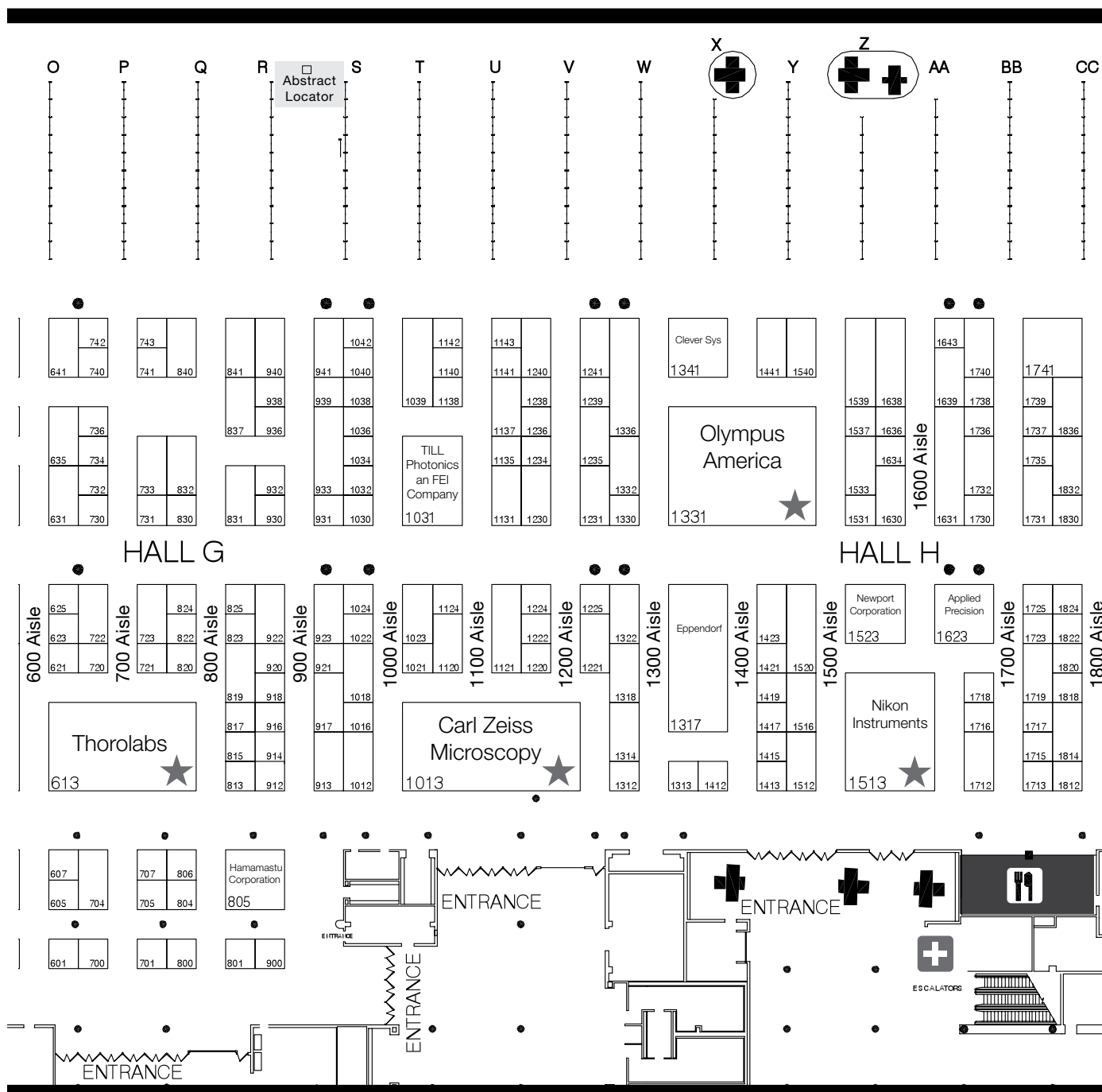
NOTE: Floor plans subject to change. For current floor plan, visit www.sfn.org/exhibits.



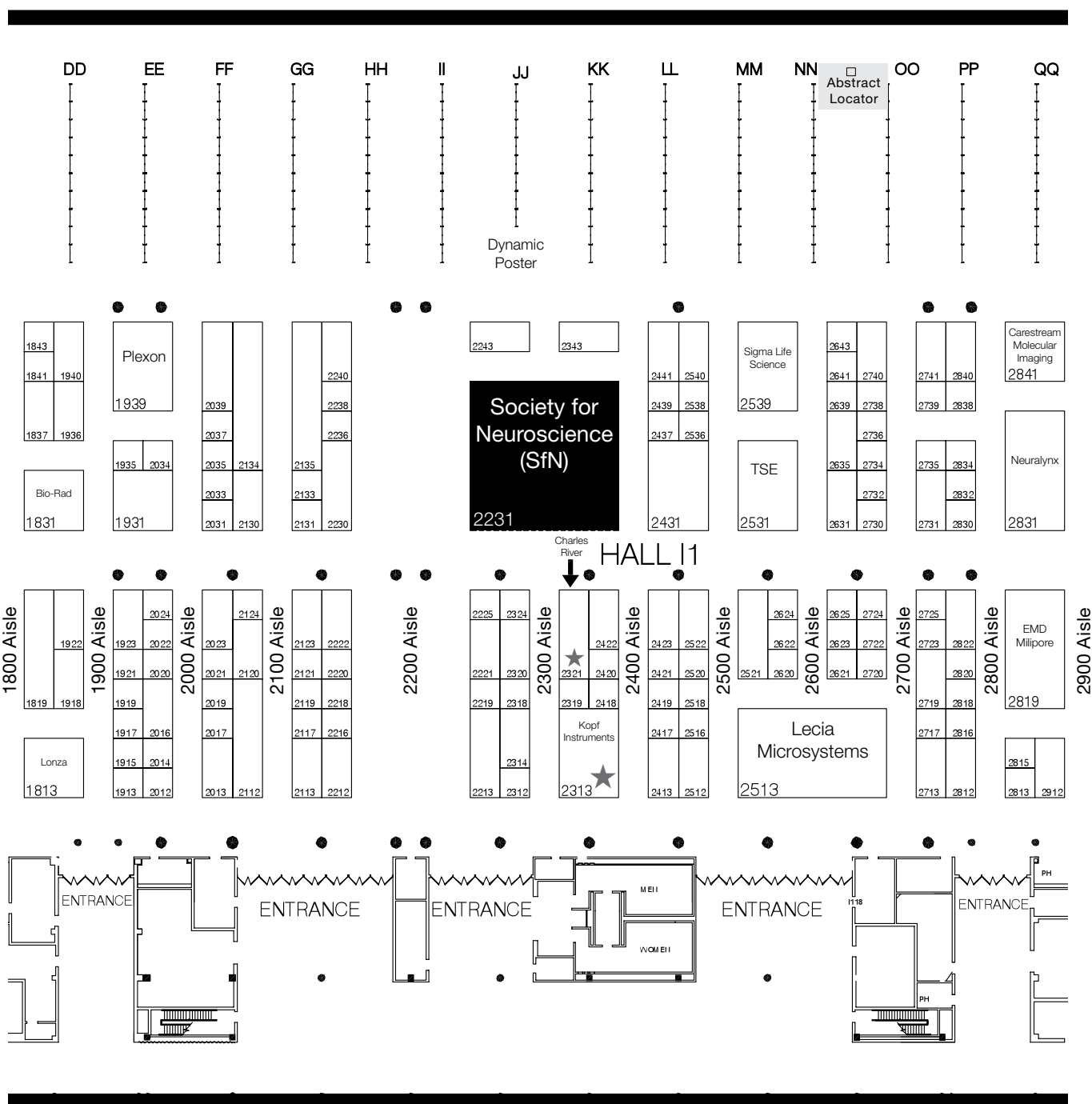
Key

- Institution | Gov't Agencies
- Nonprofits
- Publishers Row
- ★ Sustaining Associate Members

- Abstract Locator
- Concession Areas
- Additional concession stands in back of Halls G - J
- ⊕ First Aid Station
- SfN Booth



NEUROSCIENCE 2012—EXHIBITS AND POSTER SESSIONS

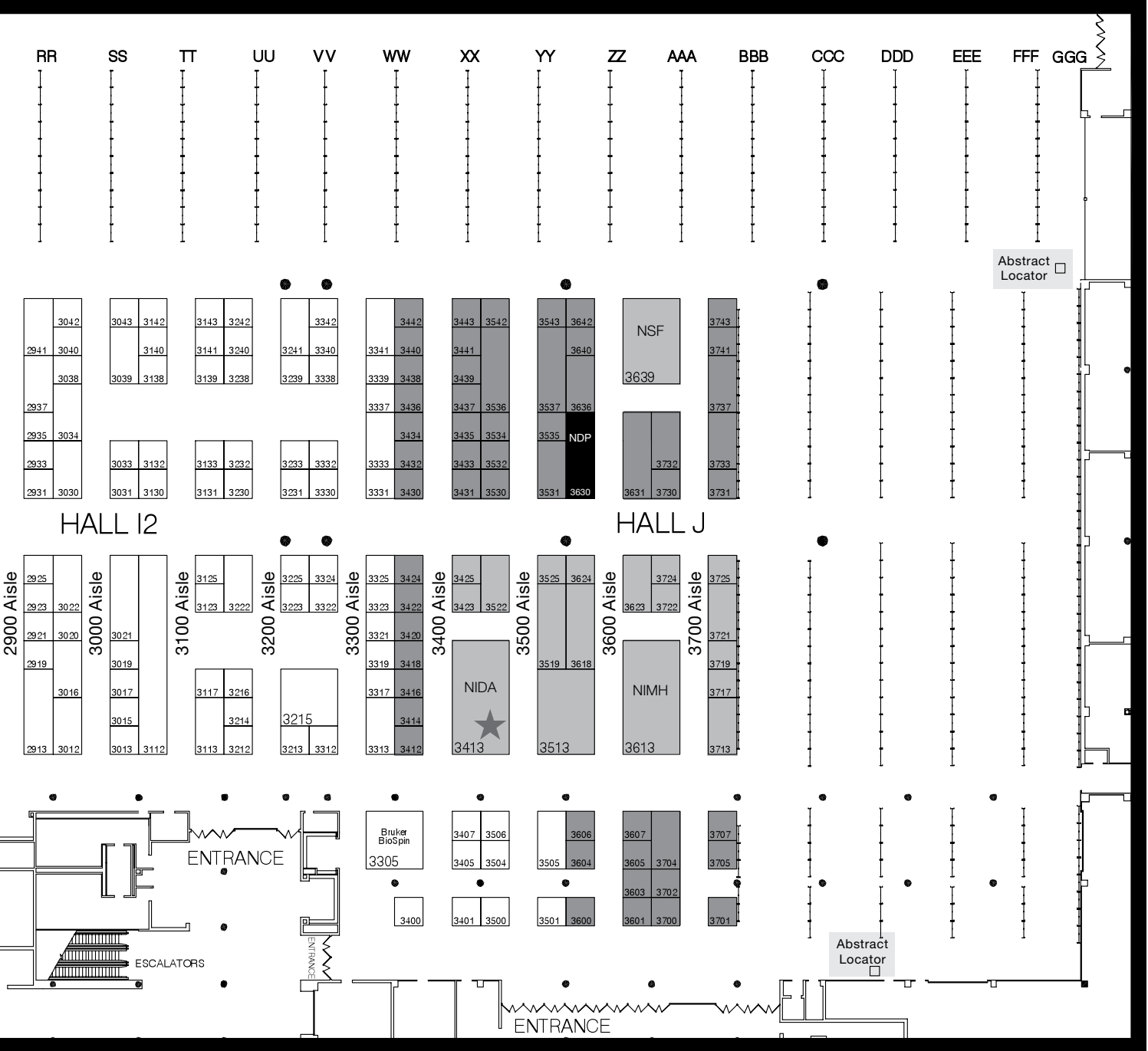


Key

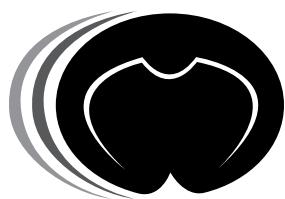
- Institution | Gov't Agencies
- Nonprofits
- Publishers Row
- ★

 Sustaining Associate Members
- Abstract Locator
- Concession Areas
- Additional concession stands in back of Halls G - J
- +

 First Aid Station
- SfN Booth



NOTES



Neuroscience
2013



SEE YOU IN

San Diego

November 9–13, 2013

SfN
SOCIETY FOR NEUROSCIENCE

SOCIETY FOR NEUROSCIENCE

MONDAY PROGRAM

NEW ORLEANS
OCTOBER 15, 2012

