Neuroscience 2013

SUNDAY

SAN DIEGO | NOVEMBER 10

Scientific Session Listings 105 — 293

Society for Neuroscience

Sunday Highlights

✍ Preregistration Required $ Course Fee 🕮 Professional Development ⚙ Networking 🎙 Public Outreach 🖵 Online Conten

Special Lecture

Adjusting Brain Circuits for Learning and Memory **CME**
Pico Caroni, PhD
Friedrich Miescher Institute
8:30–9:40 a.m.
San Diego Convention Center: Ballroom 20

The NIH Grants System and Peer Review: Practical Advice for Early- and Mid-Career Researchers 🕮 🖵
Organizer: Rene Etcheberrigaray, MD
Panelists: David Armstrong, PhD; Albert Avila, PhD; Neil Buckholtz, PhD; John Glowa, PhD; James Gnadt, PhD; Susan Koester, PhD; Ernest Lyons, PhD; Roger Miller, PhD; Richard Nakamura, PhD; Nancy Pilotte, PhD; Michael Steinmetz, PhD
Session One: Early-Career Investigators, 8:30–10 a.m.
Session Two: Mid-Career Investigators, 10:30 a.m.–noon
San Diego Convention Center: 31C

Empirical Approaches to Neuroscience and Society Symposium

Gender Bias: Facing the Facts for the Future of Neuroscience
Chair: Jennifer L. Raymond, PhD
8:30–11 a.m.
San Diego Convention Center: 6A

Symposium

Mechanisms of Deep Brain Stimulation Efficacy in Neuropsychiatric Disorders **CME**
Chair: Dennis L. Glanzman, PhD
Co-chair: Helen S. Mayberg, MD
8:30–11 a.m.
San Diego Convention Center: 6F

Symposium

The Brain-Blood Connection: Brain Control Over Its Own Blood Flow in Normal and Dysfunctional States **CME**
Chair: Ron D. Frostig, PhD
8:30–11 a.m.
San Diego Convention Center: 6B

Minisymposium

New Approaches for Studying Synaptic Development Function and Plasticity Using *Drosophila* as a Model System **CME**
Chair: Dion Dickman, PhD
8:30–11 a.m.
San Diego Convention Center: 29D

Minisymposium

Synaptic Properties and Functional Consequences of Cholinergic Transmission in the CNS **CME**
Chair: Michael Beierlein, PhD
Co-chair: Jerrel L. Yakel, PhD
8:30–11 a.m.
San Diego Convention Center: 6E

Minisymposium

The Ventral Pallidum: Roles in Reward and Addiction **CME**
Chair: Yonatan M. Kupchik, PhD
Co-chair: Stephen V. Mahler, PhD
8:30–11 a.m.
San Diego Convention Center: 28A

Special Lecture

When Good Neurons Go Bad: Dopamine Neuron Regulation and its Disruption in Psychiatric Disorders **CME**
Anthony A. Grace, PhD
University of Pittsburgh
10–11:10 a.m.
San Diego Convention Center: Ballroom 20

Special Lecture

Age-Dependent Responses of Synapse Structure to Hippocampal Plasticity **CME**
Kristen M. Harris, PhD
University of Texas
11:30 a.m.–12:40 p.m.
San Diego Convention Center: Ballroom 20

Chapters Workshop

Leading by Example: Insight Into Successful Funding and Program Strategies ✍ ⚙
Organizer: James Geddes, PhD
11:30 a.m.–1 p.m.
San Diego Convention Center: 11B

Graduate School Fair ⚙
Organizer: Committee on Neuroscience Departments and Programs
noon–2 p.m.
San Diego Convention Center: Sails Pavilion

Special Lecture

Transgenerational Epigenetics: Programming Behavior in a Dynamic Landscape **CME**
Tracy L. Bale, PhD
University of Pennsylvania
1:00–2:10 p.m
San Diego Convention Center: Ballroom 20

Plan to Attend

MONDAY, NOV. 11

Special Lecture

Putting Sensory Back Into Voluntary Control **CME**
Stephen H. Scott, PhD
8:30–9:40 a.m.
San Diego Convention Center: Ballroom 20

David Kopf Lecture on Neuroethics

Blaming the Brain: Behavioral Sciences in the Courtroom
Nita A. Farahany, JD, PhD
Duke University
10–11:10 a.m.
San Diego Convention Center: Ballroom 20

Special Lecture

Sensory Processing in *Drosophila*: Synapses Circuits and Computations **CME**
Rachel I. Wilson, PhD
Harvard Medical School
11:30 a.m.–12:40 p.m.
San Diego Convention Center: Ballroom 20

Special Presentation

Understanding New Brain Initiatives in the United States and Europe
1:15–3 p.m.
San Diego Convention Center: Ballroom 20

Albert and Ellen Grass Lecture

The Neural Circuitry of Sex and Violence **CME**
David J. Anderson, PhD
3:30–4:40 p.m.
San Diego Convention Center: Ballroom 20

Presidential Special Lecture

Connectomics: What, How, and Why **CME**
Jeff W. Lichtman, MD, PhD
5:15–6:25 p.m.
San Diego Convention Center: Ballroom 20

Sunday Highlights (continued)

Preregistration Required $ Course Fee Professional Development Networking Public Outreach Online Content

Social Issues Roundtable

Managing Incidental Findings in Research: Refining Methods of the Past Mapping the Future

Organizers: Emmeline Edwards, PhD; Judy Illes, PhD

Speakers: Gary Glover, PhD; Jody M. Shoemaker Roberts, MS, CCRP, CIP; Susan Wolf, JD

1–3 p.m.

San Diego Convention Center: Room 10

Symposium

5-Hydroxymethylcytosine and Active DNA Demethylation in Experience-Dependent Neural Function and Psychiatric Disorders **CME**

Chair: Timothy Bredy, PhD

1:30–4 p.m.

San Diego Convention Center: 6A

Symposium

Novel Advances in Understanding Mechanisms of Habituation **CME**

Chair: Catharine Rankin, PhD

1:30–4 p.m.

San Diego Convention Center: 6B

Minisymposium

Manipulating and Characterizing Neuronal Ensembles Mediating Cue-Specific Behaviors **CME**

Chair: Bruce T. Hope, PhD

Co-chair: Fábio C. Cruz, PhD

1:30–4 p.m.

San Diego Convention Center: 6F

Minisymposium

Rethinking Estrogen Action in the Brain **CME**

Chair: Gregory F. Ball, PhD

Co-chair: Jacques Balthazart, PhD

1:30–4 p.m.

San Diego Convention Center: 28A

Minisymposium

Structural Synaptic Plasticity: Emerging Breakthroughs and Relationship to Disease **CME**

Chair: Thomas F. Franke, MD, PhD

Co-chair: Eric J. Nestler, MD, PhD

1:30–4 p.m.

San Diego Convention Center: 6E

Minisymposium

What Just Happened and Do I Care? The Interaction Between Rewards and Memory in Cortical and Subcortical Structures **CME**

Chair: Barry Richmond, MD

Co-chair: Andrew Clark, PhD

1:30–4 p.m.

San Diego Convention Center: 29D

NSF News You Can Use: Exploring Funding Opportunities for Research and Training

Organizer: Diane Witt, PhD

2–4 p.m.

San Diego Convention Center: 30C

Making the Most of Your International Training

Organizer: Michael J. Zigmond, PhD

Panelists: Laura Colgin, PhD; Willie Daniels, PhD; Beth Fischer, PhD; Shigang He, PhD; Yuan Liu, PhD; Kathy Michels, PhD; Viji Ravindranath, PhD; Gonzalo Torress, PhD; Joe Whittaker, PhD

2–5 p.m.

San Diego Convention Center: 31C

Peter and Patricia Gruber Lecture

Understanding Circuit Dynamics: Variability Modulation and Homeostasis

Eve E. Marder, PhD

Brandeis University

2:30–3:40 p.m.

San Diego Convention Center: Ballroom 20

Presidential Special Lecture

A Molecular Geneticist's Approach to Understanding the Fly Brain **CME**

Gerald M. Rubin, PhD

Howard Hughes Medical Institute

5:15–6:25 p.m.

San Diego Convention Center: Ballroom 20

SfN-Sponsored Socials

6:45–8:45 p.m.

San Diego Mariott Marquis and Marina Meeting Rooms

See page xiii.

Chronological List of Sunday Sessions

Theme Descriptions

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

All posters will be presented in the San Diego Convention Center, Halls B–H. All lecture, symposium, minisymposium, and nanosymposium rooms are in the San Diego Convention Center.

Note: Theme H Posters will be on display in Hall B beginning at 1 p.m. on Saturday, Nov. 9, and will remain posted until 5 p.m. on Sunday, Nov. 10. 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						
105	Adjusting Brain Circuits for Learning and Memory	Special Lecture		Ballroom 20	10 Sun	8:30–9:40 a.m.	1.25
106	Gender Bias: Facing the Facts for the Future of Neuroscience	Empirical Approaches to Neuroscience and Society Symposium		6A	10 Sun	8:30–11 a.m.	
107	The Brain-Blood Connection: Brain Control Over Its Own Blood Flow in Normal and Dysfunctional States	Symposium		6B	10 Sun	8:30–11 a.m.	2.5
108	Mechanisms of Deep Brain Stimulation Efficacy in Neuropsychiatric Disorders	Symposium		6F	10 Sun	8:30–11 a.m.	2.5
109	Synaptic Properties and Functional Consequences of Cholinergic Transmission in the CNS	Minisymposium		6E	10 Sun	8:30–11 a.m.	2.5
110	The Ventral Pallidum: Roles in Reward and Addiction	Minisymposium		28A	10 Sun	8:30–11 a.m.	2.5
111	New Approaches for Studying Synaptic Development, Function, and Plasticity Using Drosophila as a Model System	Minisymposium		29D	10 Sun	8:30–11 a.m.	2.5
112	When Good Neurons Go Bad: Dopamine Neuron Regulation and Its Disruption in Psychiatric Disorders	Special Lecture		Ballroom 20	10 Sun	10–11:10 a.m.	1.25
113	Age-Dependent Responses of Synapse Structure to Hippocampal Plasticity	Special Lecture		Ballroom 20	10 Sun	11:30 a.m.–12:40 p.m.	1.25
	Nanosymposia (8 a.m.–noon)						
114	Alzheimer's APP Tx/Biology	Nanosymposium		23A	10 Sun	8–11 a.m.	
115	Innovative AD Therapeutics	Nanosymposium		30B	10 Sun	8–11:30 a.m.	
116	Alzheimer's Disease: Neuroinflammation and Immune Mechanisms	Nanosymposium		33C	10 Sun	8–11:30 a.m.	
117	Parkinson's Disease: Animal Models and Therapies	Nanosymposium		5B	10 Sun	8–11:30 a.m.	
118	Stroke Recovery: Pre- and Post-Conditioning	Nanosymposium		32B	10 Sun	8–10:45 a.m.	
119	Addiction Treatment and Genetics: Translational Studies	Nanosymposium		24A	10 Sun	8–11:30 a.m.	
120	Extrastriate Cortex: Computational Neuroimaging	Nanosymposium		1B	10 Sun	8–11:15 a.m.	
121	Consequences of Early Life Stress	Nanosymposium		2	10 Sun	8–10 a.m.	
122	Human Sequence and Motor Learning	Nanosymposium		7B	10 Sun	8–11:30 a.m.	
123	Fear, Stress, and Social Networks	Nanosymposium		4	10 Sun	8–10 a.m.	
124	Human Cognition: Cognitive Aging	Nanosymposium		25A	10 Sun	8–11 a.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
	Theme H Posters (Sat PM – Sun AM)						
020	History of Neuroscience	Theme H Poster	LLL11-LLL27	Halls B–H	9 Sat	1–5 p.m.	
021	Neuroscience Courses for Undergraduates, Graduates, and Professional Students	Theme H Poster	LLL28-LLL56	Halls B–H	9 Sat	1–5 p.m.	
022	Undergraduate Neuroscience Programs and Resources	Theme H Poster	LLL57-MMM9	Halls B–H	9 Sat	1–5 p.m.	
023	Professional Skills Development and Neuroscience Outreach	Theme H Poster	MMM10-MMM33	Halls B–H	9 Sat	1–5 p.m.	
024	Neuroscience for K-12	Theme H Poster	MMM34-NNN12	Halls B–H	10 Sun	8 a.m.-–noon	
025	Brain Awareness Week Activities	Theme H Poster	NNN13-NNN23	Halls B–H	10 Sun	8 a.m.–noon	
026	Neuroscience Community Outreach	Theme H Poster	NNN24-NNN36	Halls B–H	10 Sun	8 a.m.–noon	
027	Ethics and Policy	Theme H Poster	NNN37-NNN55	Halls B–H	9 Sat	1–5 p.m.	
	Posters (8 a.m.–noon)						
125	Patterning of Midbrain and Diencephalons	Poster	A1–A15	Halls B–H	10 Sun	8 a.m.–noon	
126	Axon Growth and Guidance: Chemotrophic Mechanisms I	Poster	A16–B10	Halls B–H	10 Sun	8 a.m.–noon	
127	Regeneration: PNS I	Poster	B11–C3	Halls B–H	10 Sun	8 a.m.–noon	
128	Monoamines	Poster	C4–C21	Halls B–H	10 Sun	8 a.m.–noon	
129	Retrograde Messengers	Poster	C22–D13	Halls B–H	10 Sun	8 a.m.–noon	
130	Neurotrophins: Synthesis, Processing, and Release	Poster	D14–D42	Halls B–H	10 Sun	8 a.m.–noon	
131	Glutamate Uptake and Synaptic Modulation	Poster	E1–E11	Halls B–H	10 Sun	8 a.m.–noon	
132	Network Interactions: Oscillations and Synchrony I	Poster	E12–E34	Halls B–H	10 Sun	8 a.m.–noon	
133	Microglia: Cell Biology and Physiology	Poster	E35–E50	Halls B–H	10 Sun	8 a.m.–noon	
134	Animal Models: Abeta I	Poster	E51–F26	Halls B–H	10 Sun	8 a.m.–noon	
135	Animal Models: Abeta II	Poster	F27–F39	Halls B–H	10 Sun	8 a.m.–noon	
136	Abnormal Pathological Proteins Excluding Tau and Abeta	Poster	F40–G9	Halls B–H	10 Sun	8 a.m.–noon	
137	Parkinson's Disease: Models of Degeneration	Poster	G10–G32	Halls B–H	10 Sun	8 a.m.–noon	
138	Parkinson's Disease: Animal Therapies	Poster	G33–G58	Halls B–H	10 Sun	8 a.m.–noon	
139	Repeat Expansion Diseases: Non-Huntington's Disease	Poster	G59–H11	Halls B–H	10 Sun	8 a.m.–noon	
140	Motor Neuron Disease: Animal Models	Poster	H12–H29	Halls B–H	10 Sun	8 a.m.–noon	
141	Aging: Synaptic Mechanisms and Behavior	Poster	H30–I6	Halls B–H	10 Sun	8 a.m.–noon	
142	ADHD: Animal Models and Development	Poster	I7–J15	Halls B–H	10 Sun	8 a.m.–noon	
143	Epilepsy: Post-Seizure Reorganization	Poster	J16–L2	Halls B–H	10 Sun	8 a.m.–noon	
144	Ischemia: Neurovascular and Animal Models	Poster	L3–M2	Halls B–H	10 Sun	8 a.m.–noon	
145	Ischemia: Perinatal Models	Poster	M3–M14	Halls B–H	10 Sun	8 a.m.–noon	
146	Neuroinflammation in MS and Other Demyelination Disorders	Poster	M15–N13	Halls B–H	10 Sun	8 a.m.–noon	
147	Brain Injury I	Poster	N14–P10	Halls B–H	10 Sun	8 a.m.–noon	
148	Spinal Cord Injury: Therapeutics I	Poster	P11–Q14	Halls B–H	10 Sun	8 a.m.–noon	
149	Nerve Trauma	Poster	Q15–S12	Halls B–H	10 Sun	8 a.m.–noon	
150	Sensory Disorders: Visual and Auditory	Poster	S13–U6	Halls B–H	10 Sun	8 a.m.–noon	
151	Schizophrenia and Bipolar Disorder: Animal Models I	Poster	U7–W1	Halls B–H	10 Sun	8 a.m.–noon	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
152	Novel Targets for Psychiatric Disorders: Pre-Clinical Studies	Poster	W2–X9	Halls B–H	10 Sun	8 a.m.–noon	
153	Mood Disorders: Human Postmortem Studies	Poster	X10–Y1	Halls B–H	10 Sun	8 a.m.–noon	
154	Alcohol: Developmental Effects	Poster	Y2–Z13	Halls B–H	10 Sun	8 a.m.–noon	
155	Neurophysiology, Neurochemistry, and Neuroimaging	Poster	Z14–AA13	Halls B–H	10 Sun	8 a.m.–noon	
156	Drugs of Abuse: Developmental Effects	Poster	AA14–BB12	Halls B–H	10 Sun	8 a.m.–noon	
157	Drugs of Abuse: Toxicity and Structural Plasticity	Poster	CC1–DD14	Halls B–H	10 Sun	8 a.m.–noon	
158	Opioids: Tolerance, Dependence and Withdrawal — Preclinical and Clinical Studies	Poster	DD15–EE10	Halls B–H	10 Sun	8 a.m.–noon	
159	Taste	Poster	EE11–GG8	Halls B–H	10 Sun	8 a.m.–noon	
160	Striate Cortex: Neural Coding I	Poster	GG9–HH7	Halls B–H	10 Sun	8 a.m.–noon	
161	Binocular Vision, Depth, and Stereo	Poster	HH8–II6	Halls B–H	10 Sun	8 a.m.–noon	
162	Visually-Guided Reaching: Physiology and Anatomy	Poster	II7–JJ10	Halls B–H	10 Sun	8 a.m.–noon	
163	Visually-Guided Reaching: Behavior and Modeling	Poster	JJ11–LL4	Halls B–H	10 Sun	8 a.m.–noon	
164	Vestibular System: Central Physiology and Anatomy	Poster	LL5–MM7	Halls B–H	10 Sun	8 a.m.–noon	
165	Trigeminal Processing	Poster	MM8–NN17	Halls B–H	10 Sun	8 a.m.–noon	
166	Mechanisms of Neuropathic Pain: Inflammatory Mediators	Poster	NN18–OO13	Halls B–H	10 Sun	8 a.m.–noon	
167	Somatosensory Coding: Animal Models	Poster	OO14–PP7	Halls B–H	10 Sun	8 a.m.–noon	
168	Spinal Cord I	Poster	PP8–QQ11	Halls B–H	10 Sun	8 a.m.–noon	
169	Motor Pattern Generation: Invertebrate Models I	Poster	QQ12–RR5	Halls B–H	10 Sun	8 a.m.–noon	
170	Basal Ganglia: Neurotransmitters and Neuromodulation	Poster	RR6–RR15	Halls B–H	10 Sun	8 a.m.–noon	
171	Finger and Grasp Control: Age, Pathology, and Physiology	Poster	RR16–SS3	Halls B–H	10 Sun	8 a.m.–noon	
172	Reaching Control: Action and Sensation	Poster	SS4–TT10	Halls B–H	10 Sun	8 a.m.–noon	
173	Evolution and Comparative Anatomy I	Poster	TT11–UU14	Halls B–H	10 Sun	8 a.m.–noon	
174	Parental Behavior	Poster	UU15–VV11	Halls B–H	10 Sun	8 a.m.–noon	
175	Cellular Actions of Stress	Poster	VV12–WW9	Halls B–H	10 Sun	8 a.m.–noon	
176	Stress and Cognition	Poster	WW10–XX9	Halls B–H	10 Sun	8 a.m.–noon	
177	Thirst and Water Balance	Poster	XX10–YY11	Halls B–H	10 Sun	8 a.m.–noon	
178	Stress and Feeding	Poster	YY12–ZZ7	Halls B–H	10 Sun	8 a.m.–noon	
179	Obesity	Poster	ZZ8–ZZ23	Halls B–H	10 Sun	8 a.m.–noon	
180	Binge Eating	Poster	ZZ24–AAA9	Halls B–H	10 Sun	8 a.m.–noon	
181	Human Learning and Feedback	Poster	AAA10–BBB9	Halls B–H	10 Sun	8 a.m.–noon	
182	Human Memory: Relational and Context–Based	Poster	BBB10–CCC7	Halls B–H	10 Sun	8 a.m.–noon	
183	Language I	Poster	CCC8–EEE3	Halls B–H	10 Sun	8 a.m.–noon	
184	Emotion I	Poster	EEE4–EEE25	Halls B–H	10 Sun	8 a.m.–noon	
185	Individual Differences: Personality, Emotion, and Disorders	Poster	EEE26–FFF24	Halls B–H	10 Sun	8 a.m.–noon	
186	Social Cognition: Neural Substrates I	Poster	FFF25–GGG23	Halls B–H	10 Sun	8 a.m.–noon	
187	Decision-Making: Prefrontal Cortex	Poster	GGG24–HHH5	Halls B–H	10 Sun	8 a.m.–noon	
188	Fear and Aversive Learning and Memory: Signaling Pathways for Acquisition	Poster	HHH6–HHH25	Halls B–H	10 Sun	8 a.m.–noon	
189	Fear and Aversive Learning and Memory: Modulation	Poster	HHH26–III9	Halls B–H	10 Sun	8 a.m.–noon	
190	Neural Mechanisms of Memory Consolidation and Reconsolidation	Poster	III10–III26	Halls B–H	10 Sun	8 a.m.–noon	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
191	Animal Learning and Memory: Cortical and Hippocampal Circuits II	Poster	III27–JJJ10	Halls B–H	10 Sun	8 a.m.–noon	
192	Learning and Memory: Genes, Signaling, and Neurogenesis I	Poster	JJJ11–JJJ35	Halls B–H	10 Sun	8 a.m.–noon	
193	Learning and Memory in *Aplysia*	Poster	JJJ36–JJJ56	Halls B–H	10 Sun	8 a.m.–noon	
194	Neural Circuits Mediating Impulsivity and Aggression	Poster	JJJ57–JJJ67	Halls B–H	10 Sun	8 a.m.–noon	
195	Evolution and Comparative Anatomy II	Poster	JJJ68–KKK11	Halls B–H	10 Sun	8 a.m.–noon	
196	Vocal Communication: Avian I	Poster	KKK12–KKK38	Halls B–H	10 Sun	8 a.m.–noon	
197	Computation, Modeling, and Simulation III	Poster	KKK39–KKK48	Halls B–H	10 Sun	8 a.m.–noon	
198	Data Analysis and Statistics II	Poster	KKK49–KKK63	Halls B–H	10 Sun	8 a.m.–noon	
	Featured Programs						
199	Transgenerational Epigenetics: Programming Behavior in a Dynamic Landscape	Special Lecture		Ballroom 20	10 Sun	1–2:10 p.m.	1.25
200	5–Hydroxymethylcytosine and Active DNA Demethylation in Experience-Dependent Neural Function and Psychiatric Disorders	Symposium		6A	10 Sun	1:30–4 p.m.	2.5
201	Novel Advances in Understanding Mechanisms of Habituation	Symposium		6B	10 Sun	1:30–4 p.m.	2.5
202	Manipulating and Characterizing Neuronal Ensembles Mediating Cue-Specific Behaviors	Minisymposium		6F	10 Sun	1:30–4 p.m.	2.5
203	Structural Synaptic Plasticity: Emerging Breakthroughs and Relationship to Disease	Minisymposium		6E	10 Sun	1:30–4 p.m.	2.5
204	Rethinking Estrogen Action in the Brain	Minisymposium		28A	10 Sun	1:30–4 p.m.	2.5
205	What Just Happened and Do I Care? The Interaction Between Rewards and Memory in Cortical and Subcortical Structures	Minisymposium		29D	10 Sun	1:30–4 p.m.	2.5
206	Understanding Circuit Dynamics: Variability, Modulation and Homeostasis	Peter and Patricia Gruber Lecture		Ballroom 20	10 Sun	2:30-3:40 p.m.	
207	A Molecular Geneticist's Approach to Understanding the Fly Brain	Presidential Special Lecture		Ballroom 20	10 Sun	5:15-6:25 p.m.	1.25
	Nanosymposia (1–5 p.m.)						
208	Endosomes in Neuronal Trafficking and Neurodegenerative Diseases	Nanosymposium		24A	10 Sun	1–3:45 p.m.	
209	Alzheimer's Disease: Imaging and Biomarkers	Nanosymposium		33C	10 Sun	1–4 p.m.	
210	Parkinson's Disease: Mechanisms of Degeneration and Repair	Nanosymposium		2	10 Sun	1–4:30 p.m.	
211	Brain Injury: Therapeutic Strategies I	Nanosymposium		30B	10 Sun	1–4:30 p.m.	
212	Alcohol and Adolescence	Nanosymposium		32B	10 Sun	1–3 p.m.	
213	Amphetamine and Related Drugs: Neural Mechanisms of Addiction	Nanosymposium		23A	10 Sun	1–4 p.m.	
214	Auditory System: Circuits and Cortex	Nanosymposium		1B	10 Sun	1–3 p.m.	
215	Spinal Cord Injury: Plasticity and Recovery	Nanosymposium		5B	10 Sun	1–3 p.m.	
216	Neurophysiology of Human Perception	Nanosymposium		4	10 Sun	1–4:15 p.m.	
217	Cognition and Behavior: Cognitive Development	Nanosymposium		25A	10 Sun	1–4 p.m.	
218	Nanotools for Neuroscience	Nanosymposium		7B	10 Sun	1–3:45 p.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
	Posters (1–5 p.m.)						
219	Patterning of Spinal Cord, Brain Stem, and Cerebellum	Poster	A1–A11	Halls B–H	10 Sun	1–5 p.m.	
220	Patterning of Forebrain	Poster	A12–B8	Halls B–H	10 Sun	1–5 p.m.	
221	Limbic System Development	Poster	B9–B19	Halls B–H	10 Sun	1–5 p.m.	
222	Acetylcholine	Poster	B20–B29	Halls B–H	10 Sun	1–5 p.m.	
223	Cytokines and Invertebrate Neurotransmitters: Expression, Regulation, and Function	Poster	B30–C18	Halls B–H	10 Sun	1–5 p.m.	
224	Nicotinic Receptors: Structure, Function, and Modulation I	Poster	C19–D12	Halls B–H	10 Sun	1–5 p.m.	
225	Catecholamine Receptors	Poster	D13–D27	Halls B–H	10 Sun	1–5 p.m.	
226	Ion Channels: Na^+ Channels	Poster	D28–E9	Halls B–H	10 Sun	1–5 p.m.	
227	Monoamine Transporters: Function and Modulation	Poster	E10–E21	Halls B–H	10 Sun	1–5 p.m.	
228	Dopamine Transporters: Modulation and Disease	Poster	E22–E43	Halls B–H	10 Sun	1–5 p.m.	
229	Synaptic Transmission: Presynaptic Structure and Organization	Poster	E44–F17	Halls B–H	10 Sun	1–5 p.m.	
230	Synaptic Transmission: Modulation I	Poster	F18–G1	Halls B–H	10 Sun	1–5 p.m.	
231	Synaptic Transmission: Modulation II	Poster	G2–G23	Halls B–H	10 Sun	1–5 p.m.	
232	Synaptic Transmission: Modulation III	Poster	G24–G38	Halls B–H	10 Sun	1–5 p.m.	
233	LTP: Kinases and Intracellular Signaling	Poster	G39–H4	Halls B–H	10 Sun	1–5 p.m.	
234	Oscillations and Synchrony: EEG and LFP Studies	Poster	H5–H27	Halls B–H	10 Sun	1–5 p.m.	
235	Network Interactions: Oscillations and Synchrony II	Poster	H28–I8	Halls B–H	10 Sun	1–5 p.m.	
236	Brain Wellness	Poster	I9–I18	Halls B–H	10 Sun	1–5 p.m.	
237	Abeta Toxicity	Poster	J1–J15	Halls B–H	10 Sun	1–5 p.m.	
238	Alzheimer's Disease: Neuroinflammation and Immune Mechanisms I	Poster	J16–L2	Halls B–H	10 Sun	1–5 p.m.	
239	Alzheimer's Disease: Neuroinflammation and Immune Mechanisms II	Poster	L3–M1	Halls B–H	10 Sun	1–5 p.m.	
240	Parkinson's Disease: Circuits and Cells	Poster	M2–N1	Halls B–H	10 Sun	1–5 p.m.	
241	Parkinson's Disease: Circuit Mechanisms	Poster	N2–O12	Halls B–H	10 Sun	1–5 p.m.	
242	Huntington's Disease: Mechanisms I	Poster	P1–Q12	Halls B–H	10 Sun	1–5 p.m.	
243	Motor Neuron Disease: Mechanisms I	Poster	Q13–S14	Halls B–H	10 Sun	1–5 p.m.	
244	Developmental Disorders Associated with Prenatal Events	Poster	S15–T15	Halls B–H	10 Sun	1–5 p.m.	
245	Speech, Language, and Signaling in Autism	Poster	T16–V4	Halls B–H	10 Sun	1–5 p.m.	
246	Attention Deficit Hyperactivity Disorder: Child Development	Poster	V5–W2	Halls B–H	10 Sun	1–5 p.m.	
247	Epilepsy: Glutamatergic Transmission	Poster	W3–W16	Halls B–H	10 Sun	1–5 p.m.	
248	Epileptogenesis	Poster	W17–Y5	Halls B–H	10 Sun	1–5 p.m.	
249	Stroke Recovery: Integrated Responses and Treatment	Poster	Y6–AA8	Halls B–H	10 Sun	1–5 p.m.	
250	Ischemia: Animal Models	Poster	AA9–BB6	Halls B–H	10 Sun	1–5 p.m.	
251	Ischemia: Inflammation: White Cells and Cytokines	Poster	BB7–CC13	Halls B–H	10 Sun	1–5 p.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
252	Neuroprotective Mechanisms: Drugs, Nutrition, and Diet	Poster	CC14–DD10	Halls B–H	10 Sun	1–5 p.m.	
253	Schizophrenia: Altered Brain Network Function	Poster	DD11–FF3	Halls B–H	10 Sun	1–5 p.m.	
254	Schizophrenia: Molecular and Cellular Mechanisms	Poster	FF4–HH2	Halls B–H	10 Sun	1–5 p.m.	
255	Schizophrenia and Bipolar Disorder: Animal Models II	Poster	HH3–II13	Halls B–H	10 Sun	1–5 p.m.	
256	Learning, Memory, Dependence, and Addiction	Poster	II14–JJ17	Halls B–H	10 Sun	1–5 p.m.	
257	Opioids: Neural Mechanisms of Addiction	Poster	JJ18–MM1	Halls B–H	10 Sun	1–5 p.m.	
258	Affective Disorders and Schizophrenia	Poster	MM2–NN5	Halls B–H	10 Sun	1–5 p.m.	
259	Striate Cortex: Response Properties I	Poster	NN6–OO3	Halls B–H	10 Sun	1–5 p.m.	
260	Striate Cortex: Plasticity	Poster	OO4–OO15	Halls B–H	10 Sun	1–5 p.m.	
261	Spatial Attention	Poster	OO16–PP11	Halls B–H	10 Sun	1–5 p.m.	
262	Visual Decision-Making	Poster	PP12–QQ6	Halls B–H	10 Sun	1–5 p.m.	
263	Sensorimotor Transformations: Physiology	Poster	QQ7–RR6	Halls B–H	10 Sun	1–5 p.m.	
264	Sensorimotor Transformations: Behavior	Poster	RR7–RR22	Halls B–H	10 Sun	1–5 p.m.	
265	Vestibular System: Sensory Coding, Perception, and Navigation	Poster	RR23–SS11	Halls B–H	10 Sun	1–5 p.m.	
266	Nociceptors: Molecular and Pharmacological Studies	Poster	SS12–UU15	Halls B–H	10 Sun	1–5 p.m.	
267	Mechanisms of Neuropathic Pain: Neurotrophins and Neurotransmitters	Poster	UU16–VV5	Halls B–H	10 Sun	1–5 p.m.	
268	Pain Imaging and Perception II	Poster	VV6–WW6	Halls B–H	10 Sun	1–5 p.m.	
269	Tactile Sensation and Plasticity in Humans	Poster	WW7–WW16	Halls B–H	10 Sun	1–5 p.m.	
270	Basal Ganglia: Physiology	Poster	WW17–YY9	Halls B–H	10 Sun	1–5 p.m.	
271	Voluntary Motor Control: Finger and Grasp	Poster	YY10–ZZ26	Halls B–H	10 Sun	1–5 p.m.	
272	Voluntary Motor Control: Cortical Planning I	Poster	AAA1–BBB1	Halls B–H	10 Sun	1–5 p.m.	
273	Cortical Motor Planning: Neuroimaging	Poster	BBB2–BBB21	Halls B–H	10 Sun	1–5 p.m.	
274	KNDy Neurons, Kisspeptin, Rfamide	Poster	BBB22–CCC11	Halls B–H	10 Sun	1–5 p.m.	
275	TIDA Neurons, Prolactin, and Lactation	Poster	CCC12–DDD11	Halls B–H	10 Sun	1–5 p.m.	
276	Neuroimmunology: Microglia and Dendritic Cells	Poster	DDD12–EEE21	Halls B–H	10 Sun	1–5 p.m.	
277	Neuroimmunology: Behavioral Effects	Poster	EEE22–FFF17	Halls B–H	10 Sun	1–5 p.m.	
278	Hormonal and Neural Control of Sexual Behavior	Poster	FFF18–GGG6	Halls B–H	10 Sun	1–5 p.m.	
279	Cardiovascular Regulation I	Poster	GGG7–GGG22	Halls B–H	10 Sun	1–5 p.m.	
280	Stress-Modulated Pathways: Brainstem and Other Responses to Stress	Poster	GGG23–GGG40	Halls B–H	10 Sun	1–5 p.m.	
281	Entrainment of Circadian Rhythms and Sleep	Poster	GGG41–HHH22	Halls B–H	10 Sun	1–5 p.m.	
282	Blood Flow and Blood Brain Barrier	Poster	HHH23–HHH43	Halls B–H	10 Sun	1–5 p.m.	
283	Human Learning: Reinforcement and Reward	Poster	HHH44–III26	Halls B–H	10 Sun	1–5 p.m.	
284	Human Long-Term Memory: Encoding-Retrieval Interactions	Poster	III27–JJJ1	Halls B–H	10 Sun	1–5 p.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
285	Language II	Poster	JJJ2–JJJ21	Halls B–H	10 Sun	1–5 p.m.	
286	Decision-Making: Drift Diffusion Models and Perception	Poster	JJJ22–JJJ43	Halls B–H	10 Sun	1–5 p.m.	
287	Cognition, Learning, and Memory: Neuropharmacology	Poster	JJJ44–JJJ68	Halls B–H	10 Sun	1–5 p.m.	
288	Prefrontal and Striatal Systems: Anatomy and Function	Poster	JJJ69–KKK20	Halls B–H	10 Sun	1–5 p.m.	
289	Accumbens I	Poster	KKK21–KKK31	Halls B–H	10 Sun	1–5 p.m.	
290	Ethanol	Poster	KKK32–KKK38	Halls B–H	10 Sun	1–5 p.m.	
291	Neural Mechanisms for Reward-Based Decisions	Poster	KKK39–KKK52	Halls B–H	10 Sun	1–5 p.m.	
292	Neural Mechanisms: Processing Uncertainty and Risk	Poster	KKK53–LLL2	Halls B–H	10 Sun	1–5 p.m.	
293	Computation, Modeling, and Simulation IV	Poster	LLL3–LLL10	Halls B–H	10 Sun	1–5 p.m.	
	Workshops, Meetings, and Events						
PDW13-A	The NIH Grants System and Peer Review: Practical Advice for Early- and Mid-Career Researchers: Session 1, Early- Career Investigators	Professional Development Workshops		31C	10 Sun	8:30-10 a.m.	
PDW13-B	The NIH Grants System and Peer Review: Practical Advice for Early and Mid-Career Researchers: Session 2, Mid-Career Investigators	Professional Development Workshops		31C	10 Sun	10:30 a.m.-noon	
ME05	Chapters Workshop: Leading by Example: Insight Into Successful Funding and Program Strategies	Meetings and Events		11B	10 Sun	11:30 a.m.-1 p.m.	
PDW14-A	Graduate School Fair	Professional Development Workshops		Sails Pavilion	10 Sun	noon-2 p.m.	
PDW15	NSF News You Can Use: Exploring Funding Opportunities for Research and Training	Professional Development Workshops		30C	10 Sun	2-4 p.m.	
PDW16	Making the Most of Your International Training	Professional Development Workshops		31C	10 Sun	2-5 p.m.	

Dynamic Posters — Sunday AM/PM

Sunday's dynamic poster presentations are listed below. The listing includes the locations of each dynamic poster's corresponding paper poster, which will be presented on the same day as the dynamic poster presentation unless noted otherwise. All dynamic poster presentations will occur in the San Diego Convention Center, Halls B-H. Dynamic poster displays are numbered 1-10 and are spread throughout the poster floor. For more information on dynamic posters, visit SfN.org

Theme	Abstract Title	Presenter Name	Dynamic Poster Location	Paper Poster Location	Paper Poster Pres. No.
Dynamic Poster Presentations (8 a.m.–noon)					
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	Real-time activity-dependent neuronal secretion of nerve growth factor	Lan Guo	DP1	D17	130.04
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	In vitro and in silico interconnected neuronal assemblies: A multidisciplinary framework for the development of a novel bi-directional brain-prosthesis	Michela Chiappalone	DP2	E28	132.17
Theme C: Disorders of the Nervous System	Sensory specialization in the occipital cortex of early blind humans	Laurent Renier	DP3	T10	150.16
Theme C: Disorders of the Nervous System	Fast, high-resolution biosensor measurements of ethanol-induced neurotransmitter dynamics in the rat brain	Daniel Aillon	DP4	AA4	155.09
Theme D: Sensory and Motor Systems	State-dependent impact of distinct interneuron types on spontaneous and stimulus-evoked population activity	Ulf Knoblich	DP5	GG15	160.07
Theme D: Sensory and Motor Systems	A robotic leg modeled after Blaberus discoidalis controlled by a neural simulation produces adaptive walking and stable transitions	Matthew Klein	DP6	QQ22	169.11
Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge	The effects of prenatal music on maternal behavior and offspring behavior	Natsuko Kubota	DP7	VV4	174.16
Theme F: Cognition and Behavior	Development of self-regulatory skills. An fMRI investigation on the neural mechanisms that trigger study behavior in adolescents	Luciana Falbo	DP8	AAA20	181.11
Theme F: Cognition and Behavior	Modeling correspondence between auditory and motor pathways in the zebra finch song system with boolean logic	Katherine Becker	DP9	KKK26	196.15
Theme G: Novel Methods and Technology Development	The non-static connectome — new comparative connectomics data in the nematode Caenorhabditis elegans	Steven Cook	DP10	KKK62	198.14
Dynamic Poster Presentations (1-5 p.m.)					
Theme A: Development	Mapping cortical connectivity during early postnatal development	Laura Cocas	DP1	B8	220.23
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	Different mechanisms underlying feedforward and feedback influences on low and high frequency oscillations in visual attention	Markus Bauer	DP3	H9	234.05
Theme C: Disorders of the Nervous System*	Lis1 controls dynamics of neuronal filopodia and spines to impact synaptogenesis and social behavior*	Anamaria Sudarov*	DP2*	E11*	417.19*
Theme C: Disorders of the Nervous System	Multivariate analysis reveals sex differences in distributed neural networks of attention, language and emotion regulation in typically developing youth and pediatric mania	Lucica Iordanescu	DP4	EE2	253.1
Theme C: Disorders of the Nervous System	The development of an epileptic network following brain injury	Kyle Lillis	DP5	X11	248.13
Theme C: Disorders of the Nervous System	Diffusion Tensor Imaging exhibits more proximate and reliable Transcranial Magnetic Stimulation measures compared to fMRI in stroke	David Cunningham	DP6	Z9	249.14

Dynamic Posters — Sunday AM/PM (continued)

Theme	Abstract Title	Presenter Name	Dynamic Poster Location	Paper Poster Location	Paper Poster Pres. No.
Theme D: Sensory and Motor Systems	A relativistically-invariant gabor-like filter for receptive field representation in the mammalian visual cortex	Stephen Odaibo	DP7	NN12	259.08
Theme D: Sensory and Motor Systems	The involvement of early visual cortex in tactile discrimination of Braille and visual discriminations of letters in a patient with low vision	Andre Gouws	DP8	OO14	260.11
Theme D: Sensory and Motor Systems	Behavioral responses to pulses of light in the Longfin Inshore squid	Stavros Hadjisolomou	DP9	RR7	264.01
Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge	Spinal cord injury in aged mice resulted in increased lesion length and limited functional recovery associated with impaired interleukin-(IL)4 receptor-alpha mediated regulation of microglia	Ashley Fenn	DP10	EEE11	276.12

*Paper presentation will occur during the afternoon poster session on Monday, Nov. 11, 3–4 p.m.

Sunday Workshops, Meetings & Events

Professional Development, Advocacy, and Networking Resources

Preregistration Required $ Course Fee Professional Development Networking Public Outreach Online Content

Sunday, Nov. 10

The NIH Grants System and Peer Review: Practical Advice for Early- and Mid-Career Researchers

Organizer: Rene Etcheberrigaray, PhD

Panelists: David Armstrong, PhD; Albert Avila, PhD; Neil Buckholtz, PhD; John Glowa, PhD; James Gnadt, PhD; Susan Koester, PhD; Ernest Lyons, PhD; Roger Miller, PhD; Richard Nakamura, PhD; Nancy Pilotte, PhD; Michael Steinmetz, PhD

Session One: Early-Career Investigators, 8:30–10 a.m.

Session Two: Mid-Career Investigators, 10:30 a.m.–noon

San Diego Convention Center: 31C
Contact: profdev@sfn.org

This is an overview of the roles of the Center for Scientific Review and Institutes with neuroscience portfolios. Presentations will include a detailed explanation of the "life-cycle" of a grant application, including the programmatic perspective and dealing with a difficult funding climate. At the end, panelists will participate in a town-hall style and break-out sessions for questions and answers.

Chapters Workshop

Leading by Example: Insight Into Successful Funding and Program Strategies

Organizer: James Geddes, PhD

11:30 a.m.–1 p.m.
San Diego Convention Center: 11B
Contact: chapters@sfn.org

Learn from your peers who have proven success in submitting proposals for chapter grants and awards. While showcasing winning events and activities, presenters will share tips and best practices that made these submissions stand out. Following the presentations, take the opportunity to network, ask members of the selection committee in-depth questions about the application process, and visit posters highlighting fellow chapter activities and events. Don't miss the opportunity to increase your chances for chapter funding.

Graduate School Fair

Organizer: Committee on Neuroscience Departments and Programs

Sunday, Nov. 10 and Monday, Nov. 11, noon–2 p.m.
San Diego Convention Center: Sails Pavilion
Contact: profdev@sfn.org

Meet face-to-face with student advisors, program faculty, and graduate school representatives at the second annual Graduate School Fair.

Social Issues Roundtable

Managing Incidental Findings in Research: Refining Methods of the Past, Mapping the Future

Organizers: Emmeline Edwards, PhD; Judy Illes, PhD

Speakers: Gary Glover, PhD; Jody Shoemaker Roberts, MS, CCRP, CIP; Susan Wolf, JD

1–3 p.m.
San Diego Convention Center: 10
Contact: advocacy@sfn.org

An incidental finding is the discovery of a possible health-related abnormality that is unrelated to the purpose of a research study. This roundtable will highlight developments in the management of incidental findings and return of results in human research with a focus on neuroimaging and genetics. The speakers will discuss planning for and disclosure of findings in vulnerable populations and indigenous communities, economic impact, and the analysis of data mined from biobanks. They will also explore uncharted territory toward proactive engagement and anticipation of future challenges.

NSF News You Can Use: Exploring Funding Opportunities for Research and Training

Organizer: Diane Witt, PhD

2–4 p.m.
San Diego Convention Center: 30C
Contact: profdev@sfn.org

Come hear the latest word from NSF Program officers on funding opportunities for neuroscientists, including all areas of basic neuroscience research and networking, education and training, career development opportunities, and large-scale multidisciplinary centers. Guidance will be provided for managing your data and developing a Data Management Plan required for all NSF full proposals. Talk with neuroscientists who have been successful in receiving NSF funding. General information about the agency, the review process, and tips for writing successful proposals also will be presented. NSF maintains an exhibit booth featuring relevant publications and program officers available on-site for extended conversation.

Making the Most of Your International Training

Organizer: Michael Zigmond, PhD

Panelists: Laura Colgin, PhD; Willie Daniels, PhD; Beth Fischer, PhD; Shigang He, PhD; Yuan Liu, PhD; Kathy Michels, PhD; Viji Ravindranath, PhD; Gonzalo Torress, PhD; Joe Whittaker, PhD

2–5 p.m.
San Diego Convention Center: 31C
Contact: profdev@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.

Sunday Socials

Sunday, Nov. 10, 6:45–8:45 p.m.

Cajal Club Social
Social with Brief Presentation
San Diego Marriott Marquis and Marina: Marriott Hall 4

Chair: Christopher A. Walsh, MD, PhD

Guests: V. Casagrande, G. Fishell, P. Hof, A. Kriegstein, A. LaMantia, P. Levitt, Z. Molnar, J. Parnavelas, P. Rakic, C. Ribak, J. Rubenstein, C. Shatz, L. Shapiro, G. Shepherd, L. Swanson

Informal socializing along with presentations of the Krieg Cortical Kudos Awards to three neuroscientists at senior-, mid-, and early-career stages and the Max Cowan Award in Developmental Neuroscience (sponsored by J Comparative Neurology, presented by P. Hof), followed by Carla Shatz, who will introduce Pasko Rakic, this year's Pickney J. Harmon Memorial Lecturer.

Cell Death Social
Purely Social
San Diego Marriott Marquis and Marina: Marriott Hall 6

Chair: Carol M. Troy, MD, PhD

Guests: M. Driscoll, S. Finkbeiner, W.J. Friedman, L.A. Greene, J. Ham, Z. He, E. Jacotot, D.R. Kaplan, M.K. Lee, S.A. Lipton, E. Lo, D.E. Merry, F.D. Miller, J.H. Prehn, G.S. Salvesen

Death and taxes are inevitable. While we cannot do much about the latter, why not learn more about the former at this year's "Cell Death Social," where you can meet up with old friends and make new ones while sharing drinks and lively discussions with international leaders in the field.

Clinical Neuroscience Social: What Is Clinical Neuroscience and How Do I Get There?
Social with Brief Presentation
San Diego Marriott Marquis and Marina: Marriott Hall 5

Chair: Craig M. Powell, MD, PhD

Guests: H. Zoghbi, L. Ptacek, R. Macdonald, J. Meador, B. Ransom, C. Tamminga, E. Nestler, D. Sweatt, D. Bredt

Want to be a clinical neuroscientist? Don't know what it means to be a clinical neuroscientist? Come mingle with successful clinical neuroscientists and learn about the many pathways to success. All those interested in a clinical neuroscience career are welcome. There will be a tongue-in-cheek "debate" on the "best" pathway with 5-minute cases made by early- to mid-career PhDs, MDs, MD/PhDs, and others approaching clinical neuroscience in neurology, psychiatry, neurosurgery, pharma, and more.

Genetic Models Social: Developing Connections
Social with Brief Presentation
San Diego Marriott Marquis and Marina: Torrey Pines 1 and 2

Chair: Anthony Samuel LaMantia, PhD

Guests: E.S. Anton, M. Halpern, C.A. Mason, F. Polleux, W. Snider, C.A. Walsh, R.W. Williams

The social will include a brief discussion of studying the development of neural circuits and the relationship of developmental analysis to broader efforts of brain mapping.

Hearing and Balance Social: Reenacting the Cocktail Party Effect
Purely Social
San Diego Marriott Marquis and Marina: Presidio

Chair: Jonas Obleser, PhD

Guests: C. Carr, T. Griffiths, J. Middlebrooks, M. Mishkin, D. Poeppel, J. Rauschecker, L. Romanski, C. Schroeder, S. Scott

Are you a hearing researcher? Then come along to experience for yourself the intricacies of Colin Cherry's most famous effect. If you're not, then come along nevertheless and meet some of our small field's eminent scientists and quiz them on why they love hearing so much. For this memorable night only, poor postdoctoral fellows have been tricked into unethical short-term contracts, only to find themselves DJing their favorite auditory neuroscience tunes for us.

Neuroethology/Invertebrate Neurobiology Social
Purely Social
San Diego Marriott Marquis and Marina: Rancho Santa Fe 1 and 2

Chair: Wolfgang Stein, PhD

This is a purely social gathering to celebrate neuroethology, invertebrate neuroscience research, and the role of the nervous system in producing behavior. Come by to meet old friends and make new ones. Postdoctoral fellows and students are encouraged to drop in for socialization and networking.

Sensorimotor Integration and Motor Control Social
Purely Social
San Diego Marriott Marquis and Marina: Torrey Pines 3

Chair: Rachael D. Seidler, PhD

Guests: A.J. Bastian, J.C. Rothwell, D.M. Wolpert

A purely social event to catch up with old friends and make new ones. Everyone is welcome!

Spinal Cord Injury Social
Purely Social
San Diego Marriott Marquis and Marina: Marriott Hall 3

Chair: Oswald Steward, PhD

Honor San Diego tradition! San Diego is home to the U.S. Navy's Pacific Fleet and Naval Air station. What do sailors do when coming in and out of San Diego? Get tattoos, of course! Join new and old sci colleagues in showing off SCI tattoos over libations. Awards will be given for tattoos most relevant to sci research, with special consideration for tattoos by San Diego artists. Bring a friend and join us for some good ol' fashioned scientific tattoo judging. Temporary tattoos are okay.

Synapses and Excitatory Amino Acids Social
Purely Social
San Diego Marriott Marquis and Marina: Marriott Halls 1 and 2

Chair: David D. Mott, PhD

Guests: P.J. Conn, R.J. Dingledine, R.L. Huganir, P.W. Kalivas, J.A. Kauer, R.C. Malenka, C.J. McBain, C. Mulle, K.W. Roche, S. Tomita, J.L. Yakel

Stop by, relax, have a drink, and speak with friendly colleagues with interests in synapses and excitatory amino acids. This is an excellent opportunity for students and postdoctoral fellows to interact with prominent neuroscientists in a relaxed atmosphere. All are welcome.

Satellite Events & Non–SfN Socials

Full descriptions and the latest details on these satellite events and socials not sponsored by SfN are available online at SfN.org/satellites. These events also are available in the online Neuroscience Meeting Planner (NMP). Attendees can access the NMP on–site or at SfN.org/nmp.

Sponsor Category Key: (1) Commercial (2) University/Nonprofit (3) Individual/Group

Title	More Information	Time	Location	Room	Key
Sunday , Nov. 10					
7th Annual Julius Axelrod Symposium	ninds.nih.gov/Axelrod2013	6:30–9:30 p.m.	San Diego Marriott Marquis	San Diego Ballroom Salons AB	2
Arab Neuroscientists Social	yasmine@ arabneuroscientists.org	6:30–8:30 p.m.	San Diego Convention Center	26B	3
ASPET's Neuropharmacology Division Social	Lakshmi.devi@mssm.edu	6:30–8 p.m.	Hilton San Diego Bayfront	Aqua 304	3
Chinese Neuroscientist Social	sen.song@gmail.com	6:30–9:30 p.m.	Hilton San Diego Bayfront	Indigo Ballrooms AE	2
Decision-Making Social — Society for Neuroeconomics	shaw@cns.nyu.edu	6:30–8:30 p.m.	Hilton San Diego Bayfront	Sapphire 400	2
Drexel University College of Medicine Alumni Reception	pcomey@drexel.edu	6:30–8:30 p.m.	San Diego Marriott Marquis	Laguna	2
Dutch Neuroscience Social 2013	guus.smit@vu.nl	7–10 p.m.	Manchester Grand Hyatt	Manchester Ballroom A	2
Evelyn F. McKnight Brain Research Foundation Poster Reception	vhixon@uab.edu	6:30–8:30 p.m.	Hilton San Diego Bayfront	Indigo Ballrooms DH	2
Funding Approaches to Increase Collaborations and Mentoring Circles to Strengthen our Networks	worly@tx.technion.ac.il	6:30–8 p.m.	San Diego Convention Center	30CDE	2
g.tec's Functional Mapping with the ECoG Workshop	oehlinger@gtec.at	6:30–7:30 p.m.	San Diego Convention Center	11B	1
Illinois Neuroscience Reception	beshers@life.illinois.edu	6:30–8 p.m.	Manchester Grand Hyatt	Manchester Ballroom H	1
International Behavioral Neuroscience Society (IBNS) Reception	ibns@ibnshomepage.org	6:30–8 p.m.	Manchester Grand Hyatt	Manchester Ballroom G	2
Investigating Use-Dependent Inhibition of Ion Channels on Automated Electrophysiology Systems	candace.anderson@ moldev.com	6:30–8 p.m.	San Diego Marriott Marquis	Point Loma	1
Modulation of Neuronal Networks for Behavioral Adaptation: IBRO Alumni Around the World on the Cutting Edge of Neuroscience	susan.sara@college–de–france.fr	6:30–8:30 p.m.	San Diego Convention Center	4	2
Neuroimmunology Social	staci.bilbo@duke.edu	6:30–8:30 p.m.	Manchester Grand Hyatt	Manchester Ballroom B	3
Neuroscience Opportunities in India	shona@ncbs.res.in	6:30–8:30 p.m.	San Diego Convention Center	10	2
OIST Developmental Neurobiology Course Alumni	davie_vanvactor@ hms. harvard.edu	8–10 p.m.	Hilton San Diego Bayfront	Aqua 310	2
Parkinson's Disease Foundation Social	jbeck@pdf.org	6:30–8:30 p.m.	Hilton San Diego Bayfront	Cobalt 505	2
Simons Foundation Autism Research Initiative (SFARI) Social	agreenebaum@ simonsfoundation.org	6:45–8:30 p.m.	Hilton San Diego Bayfront	Indigo 204 AB	2
Stanford Neuroscience Program Alumni Reception	larkspur@stanford.edu	6:30–7:30 p.m.	San Diego Convention Center	La Costa	2
University of Chicago Reception	Chansel@uchicago.edu	6:30–8 p.m.	San Diego Convention Center	Bayside Pavilion	2
WWN Mentoring/Networking Circle	edwardse@mail.nih.gov	8–9:30 p.m.	San Diego Convention Center	30CDE	2

Notes

Notes

Complete Session Listing

Sunday AM

SPECIAL LECTURE *San Diego Convention Center*

105. Adjusting Brain Circuits for Learning and Memory — CME

Sun. 8:30 AM - 9:40 AM — Ballroom 20

Speaker: P. CARONI, *Friedrich Miescher Institute, Switzerland.*

Brain systems face ever-changing demands for learning and memory throughout life. For example, skill learning depends first on dynamic acquisition of potentially relevant information, followed by faithful execution; memories need to be both retained and prioritized as a function of circumstances. This lecture will cover how system plasticity is adjusted flexibly to specific behavioral demands, how its regulation in juveniles and adults involves related circuit mechanisms, and how the plasticity can be harnessed for cognitive enhancement.

EMPIRICAL APPROACHES TO NEUROSCIENCE AND SOCIETY SYMPOSIUM *San Diego Convention Center*

106. Gender Bias: Facing the Facts for the Future of Neuroscience

Sun. 8:30 AM - 11:00 AM — *6A*

Chair: J. L. RAYMOND

To address the daunting challenges in neuroscience, we must effectively utilize the best scientific talent. Recent studies suggest that gender bias is limiting our ability to do this. In this symposium, leading social scientists will present data on the prevalence of gender bias, its influence on our decisions, and its effects on the career paths of women. Interventions to reduce gender bias in the scientific workplace will be discussed.

8:30 **106.01** Introduction

8:35 **106.02** Can institution-wide interventions ameliorate unconscious bias? Evidence beyond observational studies. H. VALANTINE. *Stanford University School of Medicine.*

9:10 **106.03** Redefining merit to justify discrimination. E. UHLMANN. *HEC Paris - School of Management*.

9:45 **106.04** But I thought I was being nice: How benevolent sexism undermines women's advancement. P. GLICK. *Lawrence University.*

10:20 **106.05** Gender, competitiveness, and career choices. M. NIEDERLE. *Stanford University.*

10:55 **106.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

107. The Brain-Blood Connection: Brain Control Over Its Own Blood Flow in Normal and Dysfunctional States — CME

Sun. 8:30 AM - 11:00 AM — 6B

Chair: R. D. FROSTIG

There is an emerging consensus that insights into normal as well as pathological brain function depend on an integrated understanding of active neurons and glia, and their local and global dynamic interactions with vasculature and metabolism. Using state-of-the-art *in vitro* and *in vivo* techniques, the speakers will describe the latest findings on these integrated, dynamic interactions that underlie normal brain function as well as dysfunctional states such as focal ischemia, seizures, and stroke.

8:30 **107.01** Introduction.

8:35 **107.02** Topology and control logic of the cortical vascular system. D. KLEINFELD. *Univ. of California San-Diego*.

9:10 **107.03** Neurovasular plasticity protects the cortex from impending ischemic stroke. R. D. FROSTIG. *Univ. of California Irvine.*

9:45 **107.04** Control of cerebral blood flow by astrocytes and neurons. B. A. MACVICAR. *Univ. of British Columbia.*

10:20 **107.05** Optogenetic investigation of neurovascular coupling and neurological diseases. J. HYUNG LEE. *Stanford Univ*.

10:55 **107.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

108. Mechanisms of Deep Brain Stimulation Efficacy in Neuropsychiatric Disorders — CME

Sun. 8:30 AM - 11:00 AM — 6F

Chair: D. L. GLANZMAN
Co-Chair: H. S. MAYBERG

Deep brain stimulation (DBS) has been used therapeutically in the treatment of depression and obsessive-compulsive disorder, yet the mechanisms underlying its efficacy are largely unknown and subject to much speculation. This symposium will include presentations focusing on current medical opinion regarding DBS efficacy, case studies, theory, and modeling, with a goal of uncovering the biological underpinnings of its beneficial effects at the molecular, cellular, network, and system levels.

8:30 **108.01** Introduction.

8:35 **108.02** Combining fast scan cyclic voltammetry and fMRI to elucidate mechanism of action of DBS. K. H. LEE. *Mayo Clin.*

9:10 **108.03** ● Deep brain stimulation for depression: mapping critical circuits toward treatment optimization. H. S. MAYBERG. *Emory Univ.*

9:45 **108.04** DBS for OCD: effects, neurocircuitry and behavioral models. B. D. GREENBERG. *Butler Hosp. / Brown Univ.*

10:20 **108.05** ● Computational models of deep brain stimulation. C. C. MCINTYRE. *Case Western Reserve Univ. Sch. of Med.*

10:55 **108.06** Closing Remarks.

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

MINISYMPOSIUM *San Diego Convention Center*

109. Synaptic Properties and Functional Consequences of Cholinergic Transmission in the CNS — CME

Sun. 8:30 AM - 11:00 AM — 6E

Chair: M. BEIERLEIN
Co-Chair: J. L. YAKEL

Acetylcholine is involved in a number of cognitive functions including learning, memory, and arousal. However, the cellular mechanisms underlying cholinergic signaling remain poorly understood. This minisymposium shares new findings from a number of model systems throughout the CNS, highlighting distinct modes of cholinergic transmission and discussing how acetylcholine release can rapidly and dynamically control neuronal firing, synaptic plasticity, local circuit activity, and behavior.

8:30 **109.01** Introduction.

8:35 **109.02** Mechanisms of cholinergic synaptic transmission in the spinal cord. B. LAMOTTE D'INCAMPS. CNRS - *Univ. Paris Descartes.*

8:55 **109.03** Distinct modes of cholinergic signaling in neocortex. S. HESTRIN. *Stanford Sch. of Med.*

9:15 **109.04** Cholinergic recruitment of neuronal microcircuits during fear learning. J. LETZKUS. *Friedrich Miescher Inst.*

9:35 **109.05** Biphasic cholinergic synaptic signaling in the thalamic reticular nucleus. M. BEIERLEIN. *Univ. Texas Med. Sch.*

9:55 **109.06** Timing dependent cholinergic induction of hippocampal synaptic plasticity. J. YAKEL. *NIEHS F2-08.*

10:15 **109.07** Optogenetic stimulation and suppression of ACh release in the basal lateral amygdala. L. ROLE. *Stony Brook Univ.*

10:35 **109.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

110. The Ventral Pallidum: Roles in Reward and Addiction — CME

Sun. 8:30 AM - 11:00 AM — 28A

Chair: Y. M. KUPCHIK
Co-Chair: S. V. MAHLER

The ventral pallidum (VP) is a site of convergence of limbic and motor circuits and may help translate motivation into action. Recent studies emphasize the complex and intriguing role of VP in motivation for natural rewards as well as abuse of drugs. Speakers will present their latest findings on the roles played by VP in reward-related circuits and behaviors. Presentations will include anatomical, behavioral, pharmacological, opto- and pharmacogenetic, and electrophysiological studies.

8:30 **110.01** Introduction.

8:35 **110.02** Patterns of axonal collateralization of ventral pallidal neurons in the rat. E. MENGUAL. *Univ. de Navarra.*

8:55 **110.03** The primate ventral pallidum encodes expected reward value and regulates motor action. Y. TACHIBANA. *Natl. Inst. For Physiological Sci.*

9:15 **110.04** The position of the ventral pallidum in the neural circuitry controlling feeding behavior. T. R. STRATFORD. *Univ. of Illinois-Chicago.*

9:35 **110.05** Differential roles of ventral pallidum subregions during cocaine self-administration behaviors. D. H. ROOT. *Natl. Inst. On Drug Abuse.*

9:55 **110.06** Opioid modulation of pallidal projection neurons. G. O. HJELMSTAD. *Ernest Gallo Clin. & Res. Ctr, UCSF.*

10:15 **110.07** Anatomical heterogeneity within ventral pallidum: implications for addiction-related behaviors and circuits. S. V. MAHLER. *Med. Univ. of South Carolina.*

10:35 **110.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

111. New Approaches for Studying Synaptic Development, Function, and Plasticity Using *Drosophila* as a Model System — CME

Sun. 8:30 AM - 11:00 AM — 29D

Chair: D. DICKMAN

Synapses are fundamental units of nervous system function and are affected in the pathophysiology of a variety of neurological and psychiatric diseases. The model organism *Drosophila* melanogaster has emerged as a powerful system for studying synapse development and dynamics where new and innovative approaches have recently been pioneered. This minisymposium highlights recent work using *Drosophila* that reveals new insights into synapse biology in healthy and disease states.

8:30 **111.01** Introduction.

8:35 **111.02** Local inhibitory interneurons modulate dendritic structural plasticity in the *Drosophila* larval visual system. Q. YUAN. *NIH.*

8:55 **111.03** Synaptic vesicle trafficking in health and disease. P. VERSTREKEN. VIB *Ctr. for the Biol. of Dis.*

9:15 **111.04** Mitochondria and hereditary parkinsonism. X. WANG. *Stanford Univ.*

9:35 **111.05** Using *Drosophila* to study mechanisms of synaptic degeneration. C. COLLINS. *Univ. of Michigan*.

9:55 **111.06** *Drosophila* as a model for neuronal endosomal traffic in development and disease. A. RODAL. *Brandeis Univ.*

10:15 **111.07** Forward genetic approaches in *Drosophila* reveal new insights into homeostatic synaptic plasticity and neuropsychiatric disease. D. DICKMAN. *USC.*

10:35 **111.08** Closing Remarks.

SPECIAL LECTURE *San Diego Convention Center*

112. ● When Good Neurons Go Bad: Dopamine Neuron Regulation and its Disruption in Psychiatric Disorders— CME

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

Speaker: A. A. GRACE, *Univ. of Pittsburgh.*

Midbrain dopamine neurons have been implicated in a broad variety of psychiatric disorders, ranging from schizophrenia to drug abuse and depression. These disorders appear to result not from pathology within the dopamine neurons themselves, but from a disruption in their normal regulation. This lecture will describe how limbic and cortical afferents regulate baseline tonic activity and phasic activation of dopamine neurons to salient stimuli, and how disruption of these inputs may lead to pathological states.

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

SPECIAL LECTURE *San Diego Convention Center*

113. Age-Dependent Responses of Synapse Structure to Hippocampal Plasticity— CME

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

Speaker: K. M. HARRIS, *Univ. of Texas.*

This special lecture will discuss regulation of spines, synapses, and subcellular components (polyribosomes, SER, and endosomes) by plasticity during maturation. For example, long-term potentiation (LTP) and dendritic spines first occur at P12 in rat hippocampus. LTP induces small spines on developing dendrites, but along mature dendrites synapses enlarge with compensatory elimination of small spines and shrink during concurrent LTD. Presynaptic vesicles decrease with LTP at young and mature ages illustrating structural plasticity has differential effects across synaptic compartments.

NANOSYMPOSIUM

114. Alzheimer's APP Tx/Biology

Theme C: Disorders of the Nervous System

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

8:00 **114.01** Thr668 phosphorylation of amyloid precursor protein as a possible link between insulin resistance and cognitive impairment: Beneficial effect of IGF-I treatment. B. KIM*; C. SIMS-ROBINSON; C. BACKUS; S. OH; E. L. FELDMAN. *Univ. Michigan, Univ. of Michigan.*

8:15 **114.02** c-Abl inhibition defeats amyloidogenic pathway, decreasing amyloid beta oligomers in brain and blood of Alzheimer's transgenic mice. L. D. ESTRADA*; D. CHAMORRO; R. VON BERNHARDI; N. C. INESTROSA; A. R. ALVAREZ. *P. Univ. Catolica De Chile, P. Univ. Catolica De Chile, P. Univ. Catolica De Chile.*

8:30 **114.03** The effect of APP mutations on BACE1 cleavage and APP processing. S. ZHANG*; Z. WANG; Q. XU; W. SONG. *Univ. of British Columbia.*

8:45 **114.04** ● Oligomer Receptor Antagonists and antibodies directed against specific target receptor epitopes reduce oligomers in Alzheimer's patient brain tissue sections. S. M. CATALANO*; N. J. IZZO; C. REHAK; R. YURKO; K. MOZZONI; C. SILKY; G. LOOK; G. RISHTON; H. SAFFERSTEIN; T. SPIRES-JONES. *Cognition Therapeutics, Inc., Massachusetts Gen. Hosp.*

9:00 **114.05** Amyloid Precursor Protein regulates brain lipid homeostasis. M. A. CASTELLO*; K. D. HOWARD; C. F. PHELIX; S. SORIANO. *Loma Linda Univ., Univ. of Texas at San Antonio.*

9:15 **114.06** Regulation of the Amyloid Biogenesis Pathway: Role of dietary metabolites. K. SAMBAMURTI*; V. PADMARAJU; E. BARNWELL; R. BARANELLO; J. PACHECO-QUINTO; D. K. LAHIRI; N. H. GREIG; E. ECKMAN; M. A. PAPPOLLA. *MUSC, Med. Univ. of South Carolina, Med. Univ. of South Carolina, Atlantic Hlth. Syst. and Mid Atlantic Neonatology Associates,, Indiana Univ., Natl. Inst. on Aging, Univ. of Texas Med. Br.*

9:30 **114.07** ● Intracranial injection of Gammagard, a human IVIg, modulates the inflammatory response of the brain and lowers Aβ in APP/PS1 mice along a different time-course than anti-Aβ antibodies. T. L. SUDDUTH*; A. GREENSTEIN; D. M. WILCOCK. *Univerisity of Kentucky Sanders Brown Ctr. On Aging.*

9:45 **114.08** Soluble amyloid precursor protein α (sAPPα) is a proliferation factor of adult neural progenitor cells. C. L. HOLLANDS*; M. DEMARS; K. ZHAO; O. LAZAROV. *The Univ. of Illinois at Chicago, The Univ. of Illinois at Chicago.*

10:00 **114.09** Altered dorsal-ventral gradients in intrinsic neuronal properties of layer II/III medial entorhinal cortex stellate-like cells in a transgenic model of tauopathy. C. BOOTH*; J. T. BROWN; A. D. RANDALL. *Univ. of Bristol, Univ. of Exeter.*

10:15 **114.10** Effects of aging and treatment with a γ-secretase inhibitor on plasma amyloid in transgenic mice and in mouse lemur primates. J. E. KOCH*; M. ROY; C. CARDOSO; C. MALGORN; A. HERARD; M. VANDESQUILLES; M. PERRET; F. AUJARD; M. DHENAIN. *Univ. Wisconsin, Oshkosh, Lab. des maladies neurodégénératives, MIRCen, URA 2210 CEA/CNRS, Univ. of Sherbrooke, CNRS UMR 7179, MNHN.*

10:30 **114.11** Islet amyloid polypeptide (IAPP) association with Alzheimer's disease pathology and diagnosis. J. N. FAWVER; Y. GHIWOT; C. KOOLA; J. RODRIGUEZ-RIVERA; K. T. DINELEY; S. SHANKAR; J. H. JHAMANDAS; G. PERRY; I. V. MURRAY*. *Texas A&M Hlth. Sci. Ctr., Mitchell Ctr. for Neurodegenerative Dis., Univ. of Texas Med. Br., Technol. Resources LP, Univ. of Alberta, Univ. of Texas San Antonio.*

10:45 **114.12** Aβ- and APP-deficiencies cause cerebrovascular defects. D. W. ETHELL*; S. LUNA; D. J. CAMERON. *Western Univ. of Hlth. Sci., Western Univ. of Hlth. Sci.*

NANOSYMPOSIUM

115. Innovative AD Therapeutics

Theme C: Disorders of the Nervous System

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

8:00 **115.01** Disease modifying effect of chronic treatment with a CNTF derived neurogenic and neurotrophic peptidergic compound in a triple transgenic mouse model of Alzheimer's disease. F. SYED*; J. BLANCHARD; C. DAI; Y. TUNG; F. LIU; K. IQBAL. *New York State Inst. For Basic Res., SUNY Downstate Med. Ctr., SUNY/IBR Ctr. for Developmental Neurosci. (CDN) Program.*

8:15 **115.02** Altered brain development long before plaque onset in the TgCRND8 mouse model of Alzheimer's disease. R. ALLEMANG-GRAND*; J. SCHOLZ; J. ELLEGOOD; C. LALIBERTÉ; P. E. FRASER; J. G. SLED; J. P. LERCH. *Mouse Imaging Ctr., Univ. of Toronto.*

8:30 **115.03** Safety and efficacy of blood-brain barrier disruption with focused ultrasound in a mouse model of Alzheimer's disease. A. BURGESS*; S. DUBEY; S. YEUNG; N. B. ETERMAN; I. AUBERT; K. HYNYNEN. *Sunnybrook Res. Inst., Sunnybrook Res. Inst., Univ. of Toronto, Univ. of Toronto.*

8:45 **115.04** ● Generation of an immune-deficient model of Alzheimer's disease to study human stem cell transplantation. S. E. MARSH*; J. WEINGER; J. NERHUS; S. LEE; T. LANE; A. CAPELA; M. BLURTON-JONES. *Univ. of California, Irvine, Univ. of California, Irvine, Univ. of California, Irvine, Univ. of California, Irvine, Stem Cells Inc. CNS Program.*

9:00 **115.05** Accelerated depletion of the neural stem cell pool in Alzheimer's disease transgenic mice. D. IASCONE; A. HAZRA; U. TOSI; M. PYFER; S. SCHLEIDT; A. FU; X. ZHANG; J. CHIN*. *Thomas Jefferson Univ., Thomas Jefferson Univ.*

9:15 **115.06** Effect of intra-hippocampal transplantation of hUCB derived lin-ve stem cells in amyloid-β peptide induced mouse model of memory loss. A. BANIK*; S. PRABHAKAR; A. ANAND. *Postgraduate Inst. of Med. Educ. and Res.*

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9:30 **115.07** ● External radiation improves memory in a murine model of Alzheimer's disease. D. B. MICHAEL*; S. P. CALLAN; M. K. MCCARTHY; J. CLEARY; S. BOWEN; M. C. MCGEE; A. MARTINEZ; M. MADDENS; G. WILSON; J. FONTANESI; B. MARPLES. *Michigan Head & Spine Inst., Oakland Univ. William Beaumont Sch. of Med., Wayne State Univ., William Beaumont Hosp., Botsford Cancer Ctr., William Beaumont Hosp., William Beaumont Hosp., Botsford Cancer Ctr.*

9:45 **115.08** Early astroglial and neuronal changes in the hippocampus of PDAPP-J20 transgenic mice, model of Alzheimer's disease. J. BEAUQUIS*; C. POMILIO; A. VINUESA; P. PAVÍA; V. GALVAN; F. SARAVIA. *Inst. De Biología Y Medicina Experimental, CONICET, Facultad de Ciencias Exactas y Naturales, Univ. de Buenos Aires, Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Facultad de Ciencias Exactas y Naturales, Univ. de Buenos Aires.*

10:00 **115.09** Increased CNS synapse vulnerability to Aβ oligomers in transgenic mice with peripheral insulin resistance. G. TAGLIALATELA*; W. ZHANG; D. TUVDENDORJ; B. TUMURBAATAR; N. ABATE. *Univ. Texas Med. Br.*

10:15 **115.10** Contribution of corticothalamic dysfunction to network hyperexcitability and cognitive deficits in Alzheimer's disease mice. A. HAZRA*; B. F. CORBETT; X. ZHANG; E. D. MARSH; J. CHIN. *Thomas Jefferson Univ., Farber Inst. for Neurosciences, Children's Hosp. of Philadelphia and the Perelman Sch. of Med.*

10:30 **115.11** Functional characterisation of human synapse genes expressed in the *Drosophila* brain. L. ZOGRAFOS*; V. FERLITO; M. B. MAHONEY; R. W. DAVIES; J. D. ARMSTRONG. *Brainwave Discovery Ltd, Univ. of Edinburgh, Univ. of Glasgow.*

10:45 **115.12** The kinin b2 receptor mediates amyloid-beta-induced neuroinflammation: The participation of mapks signaling. M. A. BICCA*; R. COSTA; G. LOCH-NECKEL; C. PINTO FIGUEIREDO; R. MEDEIROS; J. B. CALIXTO. *UFSC - Univ. Federal De Santa Catarina.*

11:00 **115.13** Meprin beta, a novel enzyme with potential involvement in Alzheimer's disease. C. U. PIETRZIK*; J. BIEN; S. ISBERT; C. SCHOENHERR; U. HAUSSMANN; R. WICHERT; S. WEGGEN; J. WILTFANG; C. BECKER-PAULY. *Univ. Mainz, Univ. of Duisburg-Essen, Christian-Albrechts-University Kiel, Heinrich Heine Univ. Duesseldorf.*

11:15 **115.14** Long term *in vivo* two-photon imaging reveals sigmoidal kinetics of β-amyloid deposition. M. M. DOROSTKAR*; S. BURGOLD; S. FILSER; B. SCHMIDT; J. HERMS. *Ludwig-Maximilans Univ., German Ctr. for Neurodegenerative Dis., Tech. Univ. Darmstadt.*

NANOSYMPOSIUM

116. Alzheimer's Disease: Neuroinflammation and Immune Mechanisms

Theme C: Disorders of the Nervous System

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

8:00 **116.01** White matter injury and the orphan c2orf40 gene encoding ecrg4 in Alzheimer's disease. S. PODVIN; M. C. MILLER; R. ROSSI; J. CHUKWUEKE; J. LEE; J. DONAHUE; C. JOHANSON; B. ELICEIRI; A. BAIRD; E. G. STOPA*. *UCSD, Brown Univ.*

8:15 **116.02** Anti-inflammatory effect of quetiapine in a mouse model of Alzheimer's disease. S. ZHU*; J. HE; J. WANG; R. SHI; V. LI; L. KONG; J. KONG; X. LI. *Univ. of Manitoba, Univ. of Manitoba, Univ. of Manitoba, Univ. of British Columbia.*

8:30 **116.03** CCL11 in human hippocampal neurogenesis and Alzheimer's disease. A. MARUSZAK*; T. MURPHY; R. LEUNG; S. LOVESTONE; S. THURET. *King's Col. London, King's Colege London, King's Colege London.*

8:45 **116.04** ● TNF-α/PKR-dependent eIF2α phosphorylation and defective insulin signaling are linked to memory impairment triggered by Aβ oligomers in Alzheimer's disease. M. V. LOURENÇO*; J. R. CLARKE; R. L. FROZZA; T. R. BOMFIM; L. FORNY-GERMANO; A. F. BATISTA; J. BRITO-MOREIRA; W. L. KLEIN; C. HOLSCHER; J. B. CARVALHEIRA; L. A. VELLOSO; D. P. MUNOZ; S. T. FERREIRA; F. G. DE FELICE. *Fed Univ. of Rio De Janeiro, Northwestern Univ., Ulster Univ., State Univ. of Campinas, Queen's Univ., Fed Univ. of Rio De Janeiro.*

9:00 **116.05** Promoting "Good" Neuroinflammation in Alzheimer's disease. T. C. TOWN*; K. R. DOTY; D. GATE; M. GUILLOT-SESTIER; T. M. WEITZ. *Zilkha Neurogenetic Inst., Cedars-Sinai Med. Ctr.*

9:15 **116.06** Alzheimer's disease risk gene CD33 inhibits microglial uptake of amyloid beta. A. GRICIUC*; A. SERRANO-POZO; A. R. PARRADO; A. N. LESINSKI; C. N. ASSELIN; K. MULLIN; B. HOOLI; S. H. CHOI; B. T. HYMAN; R. E. TANZI. *Massachusetts Gen. Hosp. and Harvard Med. Sch., Massachusetts Gen. Hosp. and Harvard Med. Sch.*

9:30 **116.07** Regulation of TREM2 expression by an inducible, NF-kB-sensitive miRNA-34a. W. J. LUKIW*; Y. ZHAO; S. BHATTACHARJEE; J. M. HILL; B. M. JONES; P. DUA. *Louisiana State Univ. Sch. Med., Louisiana State Univ. Sch. Med., LSUHSC, Louisiana State Tech. Univ.*

9:45 **116.08** Expression of TREM2, CR1/CR2 and CD200R on microglia isolated from aged control and 3xTg AD mouse model. M. HERNANDEZ; A. J. TENNER*. *Univ. California Irvine.*

10:00 **116.09** ● Putative role of complement receptor 1 (CR1) single nucleotide polymorphisms (SNPs) for AD pathology and beta-amyloid clearance. H. CYNIS*; J. L. FROST; H. CREHAN; J. ESTANISLAU; A. VON KORFF; P. DE JAGER; D. A. BENNETT; I. GHIRAN; A. NICHOLSON-WELLER; C. A. LEMERE. *Brigham & Women's Hospital, Harvard Med. Sch., Brigham & Women's Hosp., Dept. of Mol. Neurosciences, Beth Israel Deaconess Med. Ctr., Rush Alzheimer's Dis. Ctr.*

10:15 **116.10** VEGF exacerbates blood-brain barrier dysfunction and neuroinflammation in the cellular and mouse models of Alzheimer's disease. I. SINGH*; A. SAGARE; R. DEANE; H. H. MARTI; B. V. ZLOKOVIC. *Univ. of Rochester Med. Ctr., USC, Univ. of Rochester Med. Ctr., Inst. of Physiol. and Pathophysiology.*

10:30 **116.11** Harnessing innate immune system to modulate Alzheimer's pathology. P. CHAKRABARTY*; A. LI; T. LADD; P. CRUZ; A. ROSARIO; C. CABALLOS-DIAZ; Y. LEVITES; T. E. GOLDE. *Univ. of Florida.*

10:45 **116.12** Anti-inflammatory interleukin-10 deficiency mitigates cognitive and synaptic disturbance in PSAPP mice. M. GUILLOT-SESTIER*; K. R. DOTY; J. RODRIGUEZ, Jr; D. GATE; K. REZAI-ZADEH; T. TOWN. *Zilkha Neurogenetic Institute, Keck Sch. of Med. of USC, Dept. of Biomed. Sciences, Cedars-Sinai Med. Ctr.*

11:00 **116.13** The astrocytic gap junction protein connexin 43 exhibits calcineurin-related changes in phosphorylation status during the progression of Alzheimer's disease. M. PLEISS*; J. FURMAN; H. ABDUL; C. NORRIS. *Univ. of Kentucky, Washington Univ., Sanders Brown Ctr. on Aging.*

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11:15 **116.14** Pharmacological blockade of TGF-β signaling in peripheral macrophages mitigates Alzheimer-like pathology in pre-clinical rodent models. T. M. WEITZ*; K. REZAI-ZADEH; D. KIM; J. RODRIGUEZ, Jr.; T. M. FAHMY; T. TOWN. *Zilkha Neurogenetic Institute, Keck Sch. of Med. of USC, Dept. of Biomed. Sciences, Cedars-Sinai Med. Ctr., Dept. of Biomed. Engineering, Yale Univ.*

NANOSYMPOSIUM

117. Parkinson's Disease: Animal Models and Therapies

Theme C: Disorders of the Nervous System

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

8:00 **117.01** ● Comparative analysis of the efficacy of neural stem cells and dopaminergic neuron precursors in a non-human primate model of Parkinson's disease. R. A. SEMECHKIN*; R. GONZALEZ; I. GARITAONANDIA; A. OSTROWSKA; T. ABRAMIHINA; G. K. WAMBUA; A. NOSKOV; A. CRAIN; M. POUSTOVOITOV; F. BOSCOLO; L. C. LAURENT; D. REDMOND, JR; E. Y. SNYDER. *Intl. Stem Cell Corp, Sanford-Burnham Med. Res. Inst., Univ. of California San Diego, Yale Univ. Sch. of Med.*

8:15 **117.02** ● Augmenting glucocerebrosidase activity in the CNS as a therapeutic strategy for Gaucher-related synucleinopathies. S. SARDI*; J. CLARKE; C. VIEL; M. CHAN; C. TRELEAVEN; J. BU; L. SWEET; M. PASSINI; J. DODGE; S. CHENG; L. S. SHIHABUDDIN. *Genzyme, a Sanofi Co.*

8:30 **117.03** Altered alpha-synuclein degradation and augmentation of Parkinson disease phenotype in a transgenic mouse model heterozygous for a Gaucher mutation. I. FISHBEIN*; Y. KUO; R. NUSSBAUM. *Univ. of California San Francisco, Univ. of California San Francisco.*

8:45 **117.04** Functional improvement with intranasal administration of gelatin nanostructured lipid encapsulating basic fibroblast growth factor in hemiparkinsonian rats. Y. ZHAO; C. LU; J. CAI*. *Wenzhou Med. Col., Univ. Louisville.*

9:00 **117.05** Wide-spread impairments of mitochondria and mitophagy accompanied by severe dopamine neuron degeneration after human A53T α-synuclein overexpression in dopamine neurons. L. CHEN*; Z. XIE; C. SWETLIK; X. ZHUANG. *Univ. chicago.*

9:15 **117.06** Presence of A30P alpha-synuclein enhances Paraquat-induced dopaminergic cell-death in conditional transgenic mice. S. NUBER*; D. TANDROS; B. ETTLE; C. OVERK; J. FIELDS; E. ROCKENSTEIN; M. MANTE; M. TREJO; E. MASLIAH. *Dept. of Neurosciences, Univ. of California, San Diego, Friedrich-Alexander-University Erlangen-Nuremberg.*

9:30 **117.07** Studies of mechanisms involved in the induction and spread of α-syuclein pathology. A. SACINO*; M. A. THOMAS; M. BROOKS; C. CEBALLOS-DIAZ; N. H. MCGARVEY; A. B. MCKINNEY; P. E. CRUZ; A. M. ROSARIO; Y. RAN; J. LEWIS; T. E. GOLDE; B. I. GIASSON. *Univ. of Florida Col. of Med.*

9:45 **117.08** A novel alpha-synuclein-GFP mouse model displays progressive motor impairment and age-dependent alpha-synuclein accumulation. J. J. LI*; T. BJORKLUND; G. H. PETIT; M. LUNDBLAD; R. P. MURMU; P. BRUNDIN; C. HANSEN. *Lund Univ., Lund Univ.*

10:00 **117.09** Non-invasive bioluminescence imaging of alpha-synuclein oligomerization in mouse brain with split firefly luciferase reporters. S. AELVOET*; A. IBRAHIMI; V. REUMERS; C. VAN DEN HAUTE; Z. DEBYSER; V. BAEKELANDT. *Lab. For Neurobio. & Gene Therapy, Lab. for Mol. Virology and Gene Therapy.*

10:15 **117.10** A novel viral vector approach to study the potential toxicity of mutant LRRK2 kinase fragments in the rat substantia nigra. E. P. BROUILLET*; E. DIGUET; M. GAILLARD; D. BELLET; L. LEGROUX; L. FRANCELLE; G. AUREGAN; K. CAMBON; M. GUILLERMIER; D. HOUITTE; C. JAN; F. PETIT; P. HANTRAYE; N. DEGLON; A. BEMELMANS. *CEA, Mircen, Neurodegenerative Dis. Lab, URA CEA-CNRS 2210.*

10:30 **117.11** Time-dependent involvement of dorsolateral striatum in cognitive and emotional impairments in an experimental model of Parkinson`s disease. F. C. MATHEUS*; R. N. TAKAHASHI; L. J. BERTOGLIO; R. D. S. PREDIGER. *Federal Univ. of Santa Catarina.*

10:45 **117.12** Differential effects of skilled versus nonskilled exercise training on brain function in a rat model of bilateral parkinsonism. Z. WANG*; K. G. MYERS; Y. GUO; M. W. JAKOWEC; D. P. HOLSCHNEIDER. *Univ. of Southern California, Univ. of Southern California.*

11:00 **117.13** Deep brain stimulation of the substantial nigra pars reticulata treats gait disturbances in hemiparkinsonian rats. G. C. MCCONNELL*; W. M. GRILL. *Duke Univ.*

11:15 **117.14** Activity-dependent reorganization of the brain in a rat model of bilateral parkinsonism. D. P. HOLSCHNEIDER*; Z. WANG; K. MYERS; Y. GUO; M. A. OCAMPO; R. D. PANG; M. W. JAKOWEC. *USC, USC.*

NANOSYMPOSIUM

118. Stroke Recovery: Pre- and Post-Conditioning

Theme C: Disorders of the Nervous System

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

8:00 **118.01** Ischemic preconditioning increases BDNF protein expression leading to ischemic tolerance. J. W. THOMPSON*; A. P. RAVAL; J. T. NEUMANN; M. A. PEREZ-PINZON. *Univ. of Miami Miller Sch. of Med.*

8:15 **118.02** mTOR cell signaling pathway contributes to the protective effects of ischemic postconditioning against stroke. H. ZHAO*; R. XIE; P. WANG; M. CHENG; R. SAPOLSKY. *Stanford Univ., Stanford Univ.*

8:30 **118.03** Mtor pathway mediates diazoxide preconditioning in cultured neurons. S. DUTTA*; I. RUTKAI; P. V. G. KATAKAM; D. W. BUSIJA. *Tulane Univ. Sch. of Med.*

8:45 **118.04** Preconditioning with Crotalus atrox venom decreases intraoperative bleeding in surgical brain injury rats. C. H. KIM*; R. N. RAVAL; J. E. YOUK; P. SHERCHAN; K. HAY; T. LEKIC; B. S. BULL; R. L. APPLEGATE; J. H. ZHANG. *Loma Linda Univ.*

9:00 **118.05** Inhibition of brain ischemia-caused Notch activation may contribute to isoflurane postconditioning-induced neuroprotection. Z. ZUO*; J. YIN; H. LI; C. FENG. *Unvi of VA.*

9:15 **118.06** Deletion of interferon regulatory pathways reveal previously unrecognized potential mediators of neuroprotection in Toll-like receptor preconditioning. S. L. STEVENS*; K. B. VARTANIAN; V. K. CONRAD; M. LIU; S. N. CHRISTENSEN; M. P. STENZEL-POORE. *Oregon Hlth. & Sci. Univ.*

9:30 **118.07** Novel regulators of mitochondrial energetic & redox homeostasis during ischemic preconditioning. B. N. LIZAMA-MANIBUSAN*; A. M. PALUBINSKY; B. MCLAUGHLIN. *Vanderbilt Univ. Sch. of Med.*

9:45 **118.08** Role of C-terminus of HSC70 interacting protein (CHIP) in mediating ischemic preconditioning. A. M. PALUBINSKY*; S. G. CODREANU; R. J. SINGER; D. C. LIEBLER; B. MCLAUGHLIN. *Vanderbilt Univ. Med. Ctr.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 **118.09** PKC epsilon preconditioning extends the time to anoxic depolarization in hippocampal slices. J. T. NEUMANN*; K. B. KORONOWSKI; H. W. LIN; M. A. PEREZ-PINZON. *Univ. of Miami.*

10:15 **118.10** Ischemic preconditioning and astrocyte-neuronal interactions following oxygen-glucose deprivation in neuronal cultures. S. NARAYANAN*; M. PEREZ-PINZON. *Univ. of Miami Miller Sch. of Med.*

10:30 **118.11** Hypoxic-preconditioning induced VEGF-dependent neuroprotection requires Flt-1/VEGFR-1 signaling in newborn piglet brain. J. ARA*; C. WONG. *Drexel Univ. Col. of Med.*

NANOSYMPOSIUM

119. Addiction Treatment and Genetics: Translational Studies

Theme C: Disorders of the Nervous System

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

8:00 **119.01** The effect of biperiden (M1 antagonist) on the treatment of cocaine or crack dependence: A randomized double blind placebo-controlled trial. L. H. J. DIECKMANN; A. C. RAMOS*; L. JUSTO; E. A. SILVA; I. F. FRADE; P. SABIONI; J. C. F. GALDURÓZ. *Univ. Federal De São Paulo.*

8:15 **119.02** Personality characteristics of in-patient alcoholics and their genetic association with SLC6A4 and CRFR1. M. HO*; M. R. DAGLISH; P. R. DODD; A. STADLIN. *The Univ. of Queensland, The Univ. of Queensland, Chungbuk Natl. Univ.*

8:30 **119.03** Short-term meditation reduces smoking. Y. TANG*; L. ZHU; M. POSNER. *Texas Tech. Univ., Univ. of Oregon.*

8:45 **119.04** Study of the effectiveness of therapeutic communities facilities on cocaine/crack addiction. G. D. AMADERA*; A. C. RAMOS; J. C. GALDUROZ. *Inst. Self, UNIFESP/EPM.*

9:00 **119.05** Event-related potential measures of incorrect responses predict completion of substance abuse treatment. V. R. STEELE; B. C. FINK; J. M. MAURER; M. R. ARABSHIRANI; A. SIDZ; V. D. CALHOUN; V. P. CLARK; K. A. KIEHL*. *The Mind Res. Network, Univ. of New Mexico, Univ. of New Mexico, The Mind Res. Network, The Mind Res. Network, Univ. of New Mexico, Yale Univ. Sch. of Med., Mind Res. Network.*

9:15 **119.06** Multi-therapeutic potential of transdermal cannabidiol in relapse. G. GONZALEZ-CUEVAS*; R. MARTIN-FARDON; D. HAMMEL; S. BANKS; R. SINHA; A. STINCHCOMB; F. WEISS. *The Scripps Res. Inst., AllTranz Inc, Yale Univ. Sch. of Med., Univ. of Maryland Sch. of Pharm.*

9:30 **119.07** Evaluating GABAergic medications for smoking cessation using zebrafish. E. W. KLEE*; M. A. COUSIN; A. R. WIINAMAKI; D. P. ARGUE; S. C. EKKER. *Mayo Clin., Mayo Clin.*

9:45 **119.08** The effects of a humanized anti-cocaine monoclonal antibody on cocaethylene pharmacokinetics in mice. H. DASENBROCK*; F. C. T. GOODEN; M. R. TABET; E. L. BARTLEY; W. J. BALL; A. B. NORMAN. *Univ. of Cincinnati.*

10:00 **119.09** Single nucleotide polymorphisms of the cAMP response element binding (CREB) gene as possible risk factors for narcotic and alcohol addiction. A. PAL*; S. DAS. *INDIAN INSTITUTE OF CHEMICAL BIOLOGY, INDIAN INSTITUTE OF CHEMICAL BIOLOGY.*

10:15 **119.10** Subjective responses to cocaine in association with genetic variants of the dopaminergic system. D. A. NIELSEN*; C. J. SPELLICY; S. C. HAMON; J. J. MAHONEY, III; T. R. KOSTEN; T. F. NEWTON; R. DE LA GARZA, II. *Baylor Col. of Med., The Rockefeller Univ.*

10:30 **119.11** Altered dose-response relationships in addiction genetics. G. R. UHL*; J. DRGONOVA; F. HALL. *NIH/NIDA, Mol Neurobio.*

10:45 **119.12** Neural correlates of a genetic risk score for addiction. M. SCULT*; D. W. BELSKY; Y. S. NIKOLOVA; E. M. DRABANT; T. E. MOFFITT; A. CASPI; A. R. HARIRI. *Duke Univ., 23andMe, Inc.*

11:00 **119.13** PTPRD and addiction phenotypes: Mouse behavioral and human expression data support GWAS results. J. DRGONOVA*; D. WALTHER; B. LOCHTE; J. TRONCOSO; N. UETANI; Y. IWAKURA; G. R. UHL. *Natl. Inst. Drug Abuse, NIH, Johns Hopkins Sch. of Med., McGill Univ., Univ. of Tokyo.*

11:15 **119.14** Gender and genetics interact to modulate response to cocaine vaccine. C. J. SPELLICY; S. C. HAMON; M. J. HARDING; C. D. VERRICO*; T. R. KOSTEN; D. A. NIELSEN. *Baylor Col. of Med., Michael E. DeBakey V.A. Med. Ctr., The Rockefeller Univ.*

NANOSYMPOSIUM

120. Extrastriate Cortex: Computational Neuroimaging

Theme D: Sensory and Motor Systems

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

8:00 **120.01** Segmenting the optic radiation using fMRI-informed tractography: Extrastriate projections in human thalamocortical visual system. I. ALVAREZ*; D. S. SCHWARZKOPF; C. A. CLARK. *Univ. Col. London, Univ. Col. London.*

8:15 **120.02** Human white matter fascicles between ventral and dorsal visual field maps. H. TAKEMURA*; A. ROKEM; J. WINAWER; J. D. YEATMAN; B. A. WANDELL; F. PESTILLI. *Stanford Univ., The Japan Society for the Promotion of Sci., New York Univ.*

8:30 **120.03** Disambiguating neuronal from vascular contributions to pRF sizes measured using bold fMRI. M. M. SCHIRA*; M. J. BREAKSPEAR; P. A. ROBINSON; K. M. AQUINO. *Neurosci. Res. Australia, Univ. of Wollongong, Queensland Inst. of Med. Res., Univ. of Sydney, Brain Dynamics Center, Sydney Med. Sch., Brain Dynamics Ctr.*

8:45 **120.04** ▲ Measurements of pRF shape using tomographic reconstruction of fMRI data. C. A. GREENE*; D. RESS. *The Univ. of Texas At Austin.*

9:00 **120.05** Fmri of the rod scotoma: Population receptive fields silenced, shifted, and scaled. A. A. BREWER*; B. BARTON. *UC Irvine.*

9:15 **120.06** Filling-in of the rod scotoma: Linking fmri to perception. B. BARTON*; A. A. BREWER. *Univ. of California, Irvine.*

9:30 **120.07** Functional and structural architecture of primary visual cortex in congenitally deaf humans. C. R. LYNESS*; M. MACSWEENEY; M. I. SERENO; S. SCHWARZKOPF. *Univ. Col. London, Univ. Col. London, Univ. Col. London.*

9:45 **120.08** Predictive coding for motion information in early visual cortex. W. SCHELLEKENS*; N. RAMSEY; M. RAEMAEKERS. *UMC Utrecht, UMC Utrecht.*

10:00 **120.09** Spatial attention attracts population receptive fields throughout the visual field and throughout the visual hierarchy. B. P. KLEIN*; B. M. HARVEY; S. O. DUMOULIN. *Helmholtz Inst.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

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10:15 **120.10** Numerosity is topographically mapped in the human parietal cortex. B. M. HARVEY*; B. P. KLEIN; N. PETRIDOU; S. O. DUMOULIN. *Utrecht Univ., Univ. Med. Ctr. Utrecht.*

10:30 **120.11** Human/monkey differences in oculomotor mapping metrics. C. W. TYLER*; L. T. LIKOVA; S. C. NICHOLAS. *Smith-Kettlewell Eye Res. Inst.*

10:45 **120.12** Pitching fMRI MVPA against single unit ground truth in the macaque monkey: Decoding face identity and viewpoint. J. DUBOIS*; A. DE BERKER; D. Y. TSAO. *Caltech, Univ. Col. London.*

11:00 **120.13** Motion direction preferences in human visual cortex. H. X. WANG*; E. P. MERRIAM; J. FREEMAN; D. J. HEEGER. *New York Univ., Howard Hughes Med. Inst., New York Univ.*

NANOSYMPOSIUM

121. Consequences of Early Life Stress

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

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

8:00 **121.01** Early life stress and peripheral cytokines during acute abstinence of crack cocaine. R. GRASSI-OLIVEIRA*; M. L. LEVANDOWSKI; T. W. VIOLA; S. G. TRACTENBERG; J. C. PEZZI; A. L. TEIXEIRA; M. E. BAUER. *Pontifical Catholic Univ. of Rio Grande Do Sul, Pontifical Catholic Univ. of Rio Grande do Sul, Univ. Federal de Ciências da Saúde de Porto Alegre, Univ. Federal de Minas Gerais, Pontifical Catholic Univ. of Rio Grande do Sul.*

8:15 **121.02** Can peripheral inflammatory biomarkers predict delayed effects of early life stress? H. C. BRENHOUSE*; T. BACKUS; F. HOLLAND. *Northeastern Univ., Northeastern Univ.*

8:30 **121.03** Anti-inflammatory treatment prevents lasting depressive-like effect of early maternal separation in guinea pigs. M. B. HENNESSY*; N. P. STAFFORD; P. A. SCHIML; E. XANTHOS; T. DEAK. *Wright State Univ., Binghamton Univ.*

8:45 **121.04** Immune-related microRNAs and NFKB1 expression in the hippocampus and prefrontal cortex of maternally separated infant rats. R. GRASSI-OLIVEIRA; B. CALLAGHAN; R. RICHARDSON; T. W. BREDY*. *Queensland Brain Inst., Pontifical Catholic Univ. of Rio Grande do Sul, The Univ. of New South Wales.*

9:00 **121.05** Epigenetic programming by adverse early life environments affect the risk of developing cocaine addiction in inbreed mice. D. NÄTT*; S. HILKE; L. HOLM; A. THORSELL. *Linköping Univ.*

9:15 **121.06** Differential early rearing experiences have long-term effects on cortical organization in rhesus monkeys. A. J. BENNETT*; W. D. HOPKINS; P. J. PIERRE. *Univ. of Wisconsin-Madison, Georgia State Univ., Univ. of Wisconsin-Madison.*

9:30 **121.07** Amygdala functional connectivity and associations with early life stress during infancy. A. GRAHAM*; J. PFEIFER; S. CARPENTER; C. A. STEVENS; P. A. FISHER; D. A. FAIR. *Univ. of Oregon, Oregon Hlth. & Sci. Univ.*

9:45 **121.08** The relationship between several aspects of maternal care and white matter microstructure in infant rhesus macaques (Macaca Mulatta). B. R. HOWELL*; K. MCCORMACK; D. GUZMAN; C. VILLONGCO; K. PEARS; H. KIM; G. NAIR; X. HU; M. R. GUNNAR; M. M. SANCHEZ. *Yerkes Natl. Primate Res. Center, Emory Univ., Spelman Col., Oregon Social Learning Ctr., Emory Univ., Georgia Inst. of Technol., Inst. of Child Development, Univ. of Minnesota.*

NANOSYMPOSIUM

122. Human Sequence and Motor Learning

Theme F: Cognition and Behavior

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

8:00 **122.01** Acquired equivalence in veterans with symptoms of post-traumatic stress disorder (PTSD): More severe symptoms are associated with better generalization. J. KOSTEK*; R. SERVATIUS; S. ORR; M. GILBERTSON; C. MYERS. *Stress and Motivated Behavior Inst., Dept. of Veterans Affairs, New Jersey Hlth. Care Syst., Massachusetts Gen. Hosp., Harvard Med. Sch., Dept. of Veterans Affairs, Manchester VA Med. Ctr.*

8:15 **122.02** Partial reinforcement with us alone trials and extremely non-optimal parameters produces enhanced acquisition of conditioned eyeblinks in behaviorally inhibited individuals. T. ALLEN*; L. JUHL; D. SEVERSON. *Univ. Northern Colorado.*

8:30 **122.03** Behavioral inhibition and sex differences in mirror tracing. D. P. MILLER*; K. A. MILLER; C. E. MYERS; R. J. SERVATIUS. *Carthage Col., NJMS-UMDNJ, DVA Med. Center, NJHCS.*

8:45 **122.04** Differential enhancement of the conditioned response in delay compared to long delay eyeblink conditioning in anxiety vulnerable adolescents. M. D. CAULFIELD*; K. M. VANMEENEN; R. J. SERVATIUS. *Stress & Motivated Behavior Inst., Univ. of Med. and Dent. of New Jersey, New Jersey Hlth. Care Syst.*

9:00 **122.05** Avoidance behavior is associated with anxiety vulnerability in humans: Behavioral findings and computational modeling. J. SHEYNIN*; K. D. BECK; K. C. H. PANG; R. J. SERVATIUS; S. SHIKARI; J. OSTOVICH; B. EKEH; M. W. GILBERTSON; S. P. ORR; C. E. MYERS. *Grad. Sch. of Biomed. Sciences, Univ. of Med. and Dent. of New Jersey, Stress & Motivated Behavior Institute, New Jersey Med. Sch., Dept. of Veterans Affairs, New Jersey Hlth. Care Syst., Honors College, Rutgers Univ., Dept. of Veterans Affairs, Manchester VA Med. Ctr., Massachusetts Gen. Hosp. and Harvard Med. Sch., Dept. of Psychology, Rutgers Univ.*

9:15 **122.06** Inhibitory TMS of motor cortex impairs motor learning and depresses a cortical/subcortical network. A. D. STEEL*; L. WILKINSON; S. SONG; D. BAGEAC; K. KNUTSON; E. WASSERMANN. *NIH.*

9:30 **122.07** Evidence of a causal role of stage 2 sleep in motor memory consolidation. S. LAVENTURE*; S. FOGEL; G. ALBOUY; O. LUNGDU; C. VIEN; P. SÉVIGNY-DUPONT; J. CARRIER; J. DOYON. *Univ. De Montreal.*

9:45 **122.08** The role of the dorsolateral prefrontal cortex and sleep in the consolidation of sequential memory. K. JANACSEK*; A. HOROMPOLI; A. ADONICS; P. WALTER; A. ANTAL; D. NEMETH. *Eotvos Lorand Univ., Georg-August Univ. of Goettingen.*

10:00 **122.09** Probabilistic sequence learning in mild cognitive impairment: Acquisition, reactivation, consolidation. D. NEMETH*; K. JANACSEK; K. KIRALY; Z. LONDE; K. NÉMETH; K. FAZEKAS; I. ÁDÁM; E. KIRÁLY; A. CSÁNYI. *Eotvos Lorand Univ., Univ. of Szeged, Univ. of South-California, Budapest Univ. of Technol. and Econ., Aladár Petz County Res. Hosp.*

10:15 **122.10** Motor-resonance in response to action-related audio and visual stimuli: A fMRI study of identical twins discordant for musical training. M. A. MOSING*; Ö. DE MANZANO; F. ULLÉN. *Karolinska Institutet, Karolinska Inst., Karolinska Inst.*

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10:30 **122.11** The effects of age and Parkinson disease on performance and learning of an implicit postural motor sequence task. H. A. HAYES*; N. HUNSAKER; K. B. FOREMAN; L. BOYD; L. E. DIBBLE. *Univ. of Utah, Univ. of British Columbia.*

10:45 **122.12** Different contributions of implicit and explicit components to a visuomotor rotation in younger and older adults. K. GAJDA*; S. SUELZENBRUECK; H. HEUER. *Leibniz Res. Ctr. For Working Envrn. and Human Factors - IfADo.*

11:00 **122.13** Neural basis of expertise in musical creativity - a functional magnetic resonance imaging study. A. L. PINHO*; Ö. DE MANZANO; J. BERREBI; H. ERIKSSON; P. FRANSSON; F. ULLÉN. *Karolinska Institutet, Ctr. for Neurosci. and Cell Biol. (CNC), Univ. of Coimbra, Karolinska Institutet.*

11:15 **122.14** Dissociation of neural correlates associated with visuomotor procedural learning and explicit memory processes in HIV-alcoholism comorbidity. R. FAMA; M. ROSENBLOOM; S. A. SASSOON; T. ROHLFING; A. PFEFFERBAUM; E. V. SULLIVAN*. *Stanford Univ. Sch. of Med., SRI Intl., Stanford Univ. Sch. Med.*

NANOSYMPOSIUM

123. Fear, Stress, and Social Networks

Theme F: Cognition and Behavior

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

8:00 **123.01** Updating fear under stress: The influence of acute stress on conditioned fear reversal. C. M. RAIO*; C. A. HARTLEY; T. A. OREDERU; E. A. PHELPS. *New York Univ., Weill Cornell Med. Col., Hunter Col., Nathan Kline Inst. for Psychiatric Res.*

8:15 **123.02** Contextual features that hinder or promote human fear extinction. F. AHS*; J. E. DUNSMOOR; K. S. LABAR. *Duke Univ., New York Univ.*

8:30 **123.03** Neural links between the ability to delay gratification and regulation of craving in childhood. J. A. SILVERS*; C. INSEL; A. POWERS; T. TESLOVICH; C. HELION; J. WEBER; B. CASEY; W. MISCHEL; K. OCHSNER. *Columbia Univ., Weill Cornell Med. Col.*

8:45 **123.04** Deconstructing pain: Sensory and cognitive manipulations of pain are mediated by distinct systems. C. WOO*; M. ROY; J. T. BUHLE; T. D. WAGER. *Univ. of Colorado Boulder, Columbia Univ.*

9:00 **123.05** Functional connectivity between insula and amygdala predicts habituation to repeated negative images. B. T. DENNY*; J. FAN; X. LIU; S. GUERRERI; S. MAYSON; L. RIMSKY; A. S. NEW; L. J. SIEVER; H. W. KOENIGSBERG. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med., Queens College, City Univ. of New York, Chinese Acad. of Sci., James J Peters VA Med. Ctr.*

9:15 **123.06** A map for social navigation in the human brain. R. M. TAVARES*; C. H. WILLIAMS; Y. GROSSMAN; A. MENDELSOHN; D. SCHILLER. *Ichan Sch. of Med. At Mount Sinai.*

9:30 **123.07** Differential effects of extinction, counterconditioning, and avoidance on the return of fear in humans. J. E. DUNSMOOR*; A. CECELI; E. A. PHELPS. *New York Univ.*

9:45 **123.08** Emotion dysregulation and the fundamental attribution error in borderline personality disorder. M. C. REDDAN*; T. BROSCH; H. KOENIGSBERG; D. SCHILLER. *Mount Sinai Sch. of Med., Univ. of Geneva.*

NANOSYMPOSIUM

124. Human Cognition: Cognitive Aging

Theme F: Cognition and Behavior

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

8:00 **124.01** An fMRI study of sex differences in memory encoding and working memory in older adults. V. M. DOTSON*; J. W. KIRTON; C. N. SOZDA; W. M. PERLSTEIN; S. D. ANTON; T. M. MANINI. *Univ. of Florida, Univ. of Florida.*

8:15 **124.02** Aging affects the interaction between attentional control and source memory: An fmri study. M. R. DULAS*; A. DUARTE. *Georgia Inst. of Technol.*

8:30 **124.03** Sustained cognitive engagement leads to long term enhancements in neural recruitment: Evidence from a lifestyle intervention in older adults. S. HABER*; I. MCDONOUGH; D. PARK. *Ctr. For Vital Longevity, UT Dallas.*

8:45 **124.04** Cerebral white matter change predicts associative memory performance and effects of repeated testing in healthy adults. A. R. BENDER*; N. RAZ. *Wayne State Univ., Wayne State Univ.*

9:00 **124.05** The impact of cognitive control and age-relevance on the positivity effect in aging. L. K. SASSE*; M. GAMER; C. BUECHEL; S. BRASSEN. *Univ. Med. Ctr. Hamburg-Eppendorf.*

9:15 **124.06** ● Chronic treatment with a tryptophan-rich protein hydrolysate improves emotional processing, mental energy levels and reaction time in older women. M. MOHAJERI*; J. WITTWER, m; K. VARGAS, f; E. HOGAN, f; A. HOLMES, f; P. J. ROGERS, m; R. GORALCZYK, f; L. GIBSON, m. *DSM Nutritional Prod, Dept. of Psychology, Whitelands College, Univ. of Roehampton, 3School of Exptl. Psychology, Univ. of Bristol.*

9:30 **124.07** Age-related changes in fMRI activity during episodic memory tasks in middle vs. young adults. D. KWON*; D. MAILLET; M. FAJARDO; M. N. RAJAH. *McGill Univ., Douglas Hosp. Res. Ctr., McGill Univ.*

9:45 **124.08** Effective connectivity differs in healthy elderly and patients with mild cognitive impairment despite similar patterns of encoding and retrieval activation. B. M. HAMPSTEAD*; M. KHOSHNOODI; G. DESHPANDE; W. YAN; K. SATHIAN. *Emory Univ., Atlanta VAMC Ctr. of Excellence in Visual and Neurocognitive Rehabil., Emory Univ., Auburn Univ., Emory Univ., Emory Univ.*

10:00 **124.09** Aging increases neural noise in humans. B. VOYTEK*; J. CASE; Z. R. TEMPESTA; R. T. KNIGHT; A. GAZZALEY. *Univ. of California, San Francisco, Univ. of California, Berkeley.*

10:15 **124.10** ● Improving Cognition in the Elderly. C. STOUGH*; K. SAVAGE; K. NOLIDIN; M. PASE; A. SCHOLEY; K. WESNES. *Swinburne Univ.*

10:30 **124.11** Individual differences in associative memory among older adults predicted by high-resolution MRI metrics of hippocampal subfield structure and function. V. A. CARR*; J. D. BERNSTEIN; S. E. FAVILA; A. D. WAGNER; G. A. KERCHNER. *Stanford Univ., Stanford Univ.*

10:45 **124.12** Physical fitness improves sleep quality through improvement in sleep efficiency. A. V. TYNDALL; S. M. CASE; K. GUILD; G. ARSENAULT-LAPIERRE; M. H. DAVENPORT; B. J. WILSON; G. A. ESKES; R. S. LONGMAN; P. J. HANLY; M. J. POULIN*. *Univ. of Calgary, Univ. of Calgary, Univ. of Calgary, Dalhousie Univ., Alberta Hlth. Services, Foothills Hosp.*

THEME H POSTER

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

020. History of Neuroscience

Theme H posters remain on display Sat. 1:00 PM - Sun. 5:00 PM, with one-hour presentations occurring either Saturday (presentation number ending in (SA) or Sunday (SU) — San Diego Convention Center, Halls B-H

1:00 LLL11 **20.01SA** Left-side bias in depictions of the brain. W. J. WILSON; M. J. BAGUZIS; H. R. PAXTON. *Albion Coll*.

2:00 LLL12 **20.02SA** Towards a richer notion of habit in neuroscience. J. BERNACER MARIA; C. BLANCO; J. I. MURILLO. *Inst. for Culture and Society, Univ. of Navarra*.

3:00 LLL13 **20.03SA** The eponym: Krause - same name, different people. B. W. BAKKUM. *Illinois Coll Optometry*.

4:00 LLL14 **20.04SA** Peter Mark Roget,FRS and the 19th century construction of taxonomies in natural science, 'neuroscience' and literature . L. KRUGER; S. FINGER. *UCLA Geffen Sch. of Med., Washington Univ.*

1:00 LLL15 **20.05SA** Alfonso Corti and the discovery of the organ of Corti. N. E. KINNEY. *Southeast Missouri State Univ.*

2:00 LLL16-DP10 **20.06SA** The 'protoplasm' as the primary site of general anesthetic action. A contribution to the bicentennial of Claude Bernard's birth. M. PEROUANSKY; V. V. MATVEEV. *Univ. Wisconsin Madison, Inst. of Cytology, Russian Acad. of Sci.*

3:00 LLL17 **20.07SA** An anti-Rubin vase effect in an old quilting pattern. E. SECKEL; E. ALTSCHULER. *UCSD Ctr. For Brain and Cognition, New Jersey Sch. of Med. and Dent.*

4:00 LLL18 **20.08SA** Louis Pierre Gratiolet and brain folding patterns in primates. A. PARENT. *Univ. Laval*.

1:00 LLL19 **20.09SA** ▲ Changing our minds on neurofeedback? history, efficacy, challenges, and ethical concerns in altering affect. A. R. MUÑOZ; E. L. OHAYON; A. LAM. *Green Neurosci. Laboratory, Neurolinx Res. Inst.*

2:00 LLL20 **20.10SA** ▲ Toward a Neuroanatomical Model of Hypnosis. S. SINGH; R. CIRIC; S. SINGH; J. SCOTT; J. SINGH. *Mid-America Psychological and Counseling Services, NeuroScience Associates*.

3:00 LLL21 **20.11SA** ▲ Understanding creativity through neuroscience: Conceptual concerns, experimental pitfalls, and social implications. P. V. CHU; A. R. MUNOZ; M. MACDONALD; E. L. OHAYON; A. LAM. *The Green Neurosci. Laboratory, Neurolinx Res. Inst., Envrn. Defence*.

4:00 LLL22 **20.12SA** ▲ The need for quantum processing in the brain. S. ZHAO. *Univ. of California, Berkeley*.

1:00 LLL23 **20.13SA** The University of Puebla is the base of pharmaceutical sciences including those for the treatment of mental illness. J. EGUIBAR; M. CORTES; A. HUERTA-JARAMILLO. *Benemerita Univ. Autonoma de Puebla, Beneméirta Univ. Autónoma de Puebla*.

2:00 LLL24 **20.14SA** Thermal circuit analogs in the brain and "friendly" stimulation during sleep rhythms: Modulation of TMS/TES. J. F. GOMEZ-MOLINA; L. F. BOTERO; J. CIRO; A. L. GOMEZ-MOLINA. *Intnal Group of Neuro Cra 64c#48-94(603), Member Grupo de Neurociencias Clinica Las Americas Calle 3 #29a-97, Intnal Group of Neuro Cra 64c#48-94(603)*.

3:00 LLL25 **20.15SA** Binocular stereoscopy in visual areas V-2, V-3 and V-3A of the macaque monkey: A contemporary analysis of Hubel and Wiesel's unpublished recordings of cells sensitive to binocular depth. B. R. CONWAY; E. M. YEAGLE; R. LAFER-SOUSA; T. N. WIESEL; D. H. HUBEL. *Wellesley Col., Wellesley Col., The Rockefeller Univ., Harvard Med. Sch.*

4:00 LLL26 **20.16SA** Animal models & clinical neuroscience: Improving or not? S. SNODGRASS. *Harbor UCLA Med. Cntr*.

1:00 LLL27 **20.17SA** Overcoming resistance to change in organizations and among consumers: The roles of Lateral prefrontal and Frontopolar Cortices in the initiation of new behaviors. S. CURTIS. *True North, LLC*.

THEME H POSTER

021. Neuroscience Courses for Undergraduates, Graduates, and Professional Students

Theme H posters remain on display Sat. 1:00 PM - Sun. 5:00 PM, with one-hour presentations occurring either Saturday (presentation number ending in (SA) or Sunday (SU) — San Diego Convention Center, Halls B-H

1:00 LLL28 **21.01SA** Alaska institutional development award (idea) network of biomedical research excellence (inbre): Environmental agents and disease. C. A. FRYE. *Ualaska-Fairbanks*.

2:00 LLL29 **21.02SA** The 24th Northeast Under/graduate Research Organization for Neuroscience (NEURON) conference and 41st Hunter College Psychology Convention. A. A. WALF; C. A. FRYE; J. YOUNG. *Rensselaer Polytechnic Institute,, UAlbany & UAlaska-Fairbanks, CUNY-Hunter*.

3:00 LLL30 **21.03SA** A model for teaching advanced neuroscience methods to graduate students: a student-run seminar to increase practical understanding and confidence. T. HARRISON; C. R. K. CHING; M. C. EINSTEIN; S. L. BONANNO; A. M. ANDREWS; M. LEVINE. *UCLA, UCLA, UCLA*.

4:00 LLL31 **21.04SA** Life science education: Updates of the Virtual Physiology series. H. A. BRAUN; A. TCHAPTCHET; H. SCHNEIDER; S. POSTNOVA; J. SCHWABEDAL. *Univ. Marburg, DAQ-Solutions, Univ. of Sydney, Harvard Univ.*

1:00 LLL32 **21.05SA** Assays of acetylcholinesterase activity in drugs and disease: An undergraduate opportunity to reproduce established work and produce novel data. V. QUINAN; D. E. BAUER. *Wellesley Col.*

2:00 LLL33 **21.06SA** Measuring long term potentiation in acute hippocampal slices: A laboratory module for undergraduates. D. BAUER; E. B. BOURGEOIS; V. C. QUINAN; K. HAWKINS. *Wellesley Col., Brigham and Women's Hospital-Harvard Med. Sch.*

3:00 LLL34 **21.07SA** Learning about one's own learning in an undergraduate learning and memory course. M. L. LINDEN. *Brown Univ.*

4:00 LLL35 **21.08SA** The "Neurotransmitter Notebook": a tool for educating pharmacy students. A. V. BUHLER; P. A. CAWLEY; L. L. DEVAUD. *Pacific Univ.*

1:00 LLL36 **21.09SA** Teaching neurotoxicity using animated illustrations: a demonstration of lead toxicity at the synapse. D. BUSSELBERG; J. TABAN; E. VARGHESE; B. ALOST; S. MORENO; A. FLOREA. *Weill Cornell Med. Col. In Qatar, Univ. of Konstanz, Texas Tech. Univ. Hlth. Sci. Ctr., Univ. Trier*.

2:00 LLL37 **21.10SA** Helping medical students think like scientists: Enhancing the journal club experience. B. GRAFSTEIN; T. A. MILNER. *Weill Cornell Med. Coll., Weill Cornell Med. Coll.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 LLL38 **21.11SA** Evaluation of a group of medical students in physiology class at the school of medicine in University of Tamaulipas, México about clinical cases discussion as a teaching technique (clinical reasoning applied to neurophysiology). M. T. CASTANEDA; H. RODRIGUEZ; M. D. DE LEON; E. D. LOPEZ; H. E. RODRIGUEZ; N. E. FERNANDEZ. *Univ. of Tamaulipas, Univ. of Texas at Brownsville, Univ. Autonoma de Nuevo Leon*.

4:00 LLL39 **21.12SA** Flexner++: Enhanced basic science education promoting lifelong learning for medical practice. D. GARDNER. *Weill Cornell Med. Col.*

1:00 LLL40 **21.13SA** Introduction of bio-behavioral concepts during the first year of medical school within active learning group sessions. B. D. FISCHER; C. C. CAGANDE; A. MOOKERJEE; V. RAJPUT. *Cooper Med. Sch. of Rowan Univ.*

2:00 LLL41 **21.14SA** Process evaluation of an extension course in applied neuroeconomics for junior consultants in economics and management. K. R. VIACAVA; L. BIZARRO. *Federal Univ. of Rio Grande Do Sul - UFRGS*.

3:00 LLL42 **21.15SA** Using GNU make to teach undergraduates neuroimaging workflow. T. MADHYASTHA; Z. MESTRE; E. COLLINS; T. GRABOWSKI. *Univ. of Washington, Univ. of Washington*.

4:00 LLL43 **21.16SA** Inquiry based activities for undergraduate neuroscience. K. K. O'TOOLE. *Tufts Univ. Sch. of Med.*

1:00 LLL44 **21.17SA** How the San Jose State University technology enabled 'Incubator Classroom' improved my teaching of vertebrate neurophysiology. K. A. WILKINSON. *San Jose State Univ.*

2:00 LLL45 **21.18SA** An interdisciplinary, experiential, one-month course on the neuroscience of meditation. L. E. OLSON. *Univ. of Redlands*.

3:00 LLL46 **21.19SA** CrawFly: A laboratory workshop promoting investigative neuroethology education with invertebrate model organisms. W. COLGAN, III; S. R. PULVER; R. A. WYTTENBACH; R. R. HOY; B. R. JOHNSON. *ADInstruments, Inc., Howard Hughes Med. Res. Inst., Cornell Univ., Cornell Univ.*

4:00 LLL47 **21.20SA** Using published personal accounts of drug therapy to supplement an undergraduate psychopharmacology course. R. E. GRAHN; R. GUNTLI. *Connecticut Col.*

1:00 LLL48 **21.21SA** Lessons learned in the development of a primary literature-based undergraduate neuroscience course. E. C. CHURCH; I. RIVERO-COVELO; D. J. BRAUN; M. R. FETTIPLACE; J. J. CONE; P. M. BAKER; M. H. ALPERT. *Univ. of Illionois At Chicago, Univ. of Illionois At Chicago*.

2:00 LLL49 **21.22SA** Mythbusters: A neuroeconomics course for undecided freshman- The neuroscientist's perspective. C. L. FRANSSEN; G. S. LOWRY; A. FRANSSEN. *Longwood Univ., Randolph-Macon Col., Longwood Univ.*

3:00 LLL50 **21.23SA** Mythbusters: A neuroeconomics course for undecided freshman - The behavioral economist's perspective. G. S. LOWRY; C. L. FRANSSEN; A. FRANSSEN. *Randolph-Macon Col., Longwood Univ.*

4:00 LLL51 **21.24SA** Teaching research methods and debunking neuromyths: Two birds with one stone. C. A. ERICKSON; B. E. TAYLOR; Z. S. TAYLOR; J. K. WILLIAMSON-JONES; M. WOLF; A. R. ZAVILLA; C. B. WALTERS. *Metropolitan State Univ. of Denver*.

1:00 LLL52 **21.25SA** Web-based technology: A dynamic approach to student engagement and learning. M. K. JARVINEN; L. JARVINEN; B. SILVEIRA. *Emmanuel Col., Mount Holyoke Col.*

2:00 LLL53 **21.26SA** An inexpensive insect locomotion tracker: Construction and teaching applications. S. A. HAUPTMAN; K. DU BOIS; H. W. HORCH. *Bowdoin Coll*.

3:00 LLL54 **21.27SA** ▲ Basic neuron model electrical equivalent circuit: An undergraduate laboratory exercise. K. DABROWSKI; D. CASTAÑO; J. TARTAR. *Nova Southeastern Univ.*

4:00 LLL55 **21.28SA** An undergraduate animal behavior course investigating the effects of omega-3 fish oil on memory. R. L. GALLI. *SIMMONS COLLEGE*.

1:00 LLL56 **21.29SA** The interdisciplinary research training program CINACS. J. ZHANG. *Univ. of Hamburg*.

THEME H POSTER

022. Undergraduate Neuroscience Programs and Resources

Theme H posters remain on display Sat. 1:00 PM - Sun. 5:00 PM, with one-hour presentations occurring either Saturday (presentation number ending in (SA) or Sunday (SU) — San Diego Convention Center, Halls B-H

1:00 LLL57 **22.01SA** Baldwin Wallace University - the Society for Neuroscience's undergraduate neuroscience program of the year (2012). G. A. MICKLEY; M. M. ROGERS; R. ZACHARIAS; C. TURNER. *Baldwin Wallace Univ., Nu Rho Psi*.

2:00 LLL58 **22.02SA** ENDURE-Neuroscience research opportunity to increase diversity: A research-with-purpose approach. I. E. VEGA; N. M. ORTIZ-VEGA; G. J. AYALA-SEPULVEDA; J. RODRIGUEZ-ADAMES; M. SANCHEZ-CESARIO. *Univ. of Puerto Rico-Rio Piedras Campus, Univ. of Puerto Rico-Medical Sci. Campus*.

3:00 LLL59 **22.03SA** BP-ENDURE Atlanta: Engaging undergraduates in neuroscience research. K. J. FRANTZ; C. T. GOODE; J. L. LARIMORE; E. A. BUFFALO; Y. SMITH; K. BRAKKE; T. MCKLIN. *Georgia State Univ., Georgia State Univ., Agnes Scott Col., Emory Univ., Spelman Col., The Findings Group*.

4:00 LLL60 **22.04SA** Hunter-nyu bp-endure program. V. QUINONES-JENAB; R. MIRANDA; C. AOKI. *Hunter College, City Univ. of New York, New York Univ.*

1:00 LLL61 **22.05SA** BP-ENDURE San Antonio: south texas advanced research training - undergraduate program (start-up). A. FRAZER; D. WEISS; D. MORILAK; B. REID. *UTHSCSA, UTHSCSA*.

2:00 LLL62 **22.06SA** Building Research Achievement in Neuroscience (BRAiN): A university partnership for broadening participation in neuroscience in the Rocky Mountain and Rio Grande regions. S. T. BLAND; E. SALCEDO; V. B. KNIGHT; W. PATERSON; D. RAMIREZ-GORDILLO; T. F. WRIGHT; D. RESTREPO; E. E. SERRANO. *Univ. of Colorado, Denver, Univ. of Colorado, Denver, New Mexico State Univ., Univ. of Colorado, Denver*.

3:00 LLL63 **22.07SA** Teaching undergraduate students to think like neuroscientists without entering the laboratory. S. F. FRAUSTO; C. N. SUNNEN. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Children's Hosp. of Philadelphia*.

4:00 LLL64 **22.08SA** ▲ A decade of the journal IMPULSE: Growth and impact. L. S. JONES; C. CARLAY; D. COBB; M. COOK; C. ESTER; A. ROSSI; D. RUSSELL; K. SASSER; D. WOODARD. *Appalachian State Univ.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 MMM1 **22.09SA** ▲ The undergraduate journal of psychology at berkeley - an associated students of the university of california berkeley sponsored journal. F. D. UQUILLAS; A. S. KOHANTEB; K. M. WOOD; L. M. SOUDI. *UC Berkeley, Helen Wills Neurosci. Inst.*

2:00 MMM2 **22.10SA** Free online resource for neuroscience educators: Journal of Undergraduate Neuroscience Education (JUNE) http://www.funjournal.org/. E. P. WIERTELAK; B. JOHNSON; G. DUNBAR; W. E. GRISHAM. *Macalester Col., Cornell Univ., Central Michigan Univ., UCLA*.

3:00 MMM3 **22.11SA** ERIN: Resources to enhance the teaching of neuroscience. R. F. OLIVO; J. R. BURDO; R. CALIN-JAGEMAN; W. E. GRISHAM; M. L. LINDEN; R. L. ROSENBERG; L. L. SYMONDS; J. E. THORNTON. *Smith Col., Boston Col., Dominican Univ., UCLA, Brown Univ., Earlham Col., Michigan State Univ., Oberlin Col.*

4:00 MMM4 **22.12SA** Faculty for Undergraduate Neuroscience (FUN): Multiple mechanisms for supporting the development of undergraduate students and faculty in the neurosciences. N. J. SANDSTROM; J. S. SMITH; E. R. REYNOLDS. *Williams Col., Saginaw Valley State Univ., Lafayette Col.*

1:00 MMM5 **22.13SA** The 23rd northeast under/graduate research organization for neuroscience (NEURON) held at Quinnipiac University in Hamden, CT. A. J. BETZ; T. AHERN; C. FRYE. *Quinnipiac Univ., Univ. of Alaska INBRE*.

2:00 MMM6 **22.14SA** Years of change and progress: The midbrains undergraduate neuroscience conference. E. P. WIERTELAK; J. NEIWORTH; S. DICKINSON; J. DEMAS; J. LOEBACH; S. MEERTS; G. MUIR; C. OHNESORGE; J. STRAND; L. WICHLINSKI; J. WOLFF. *Macalester Col., Carleton Col., St. Olaf Col., St. Olaf Col., Carleton Col.*

3:00 MMM7 **22.15SA** Nu rho psi, the national honor society in neuroscience. L. ACHOR; A. MICKLEY; E. P. WIERTELAK. *Baylor Univ., Baldwin Wallace Univ., Macalester*.

4:00 MMM8 **22.16SA** ▲ Alaska's Brain Bee: a service learning opportunity for upper division biological science undergraduates. S. M. COSTELLO; C. WILSON. *Univ. of Alaska Anchorage, Univ. of Alaska, Anchorage*.

1:00 MMM9 **22.17SA** How to design group projects that successfully foster collaborative learning. L. L. MCGREW. *Belmont Univ.*

THEME H POSTER

023. Professional Skills Development and Neuroscience Outreach

Theme H posters remain on display Sat. 1:00 PM - Sun. 5:00 PM, with one-hour presentations occurring either Saturday (presentation number ending in (SA) or Sunday (SU) — San Diego Convention Center, Halls B-H

1:00 MMM10 **23.01SA** Bridging the gap between undergraduate laboratory coursework and independent research: developmental genetics of hindbrain development in Xenopus tropicalis. N. HIRSCH; C. M. CONSTANCE; J. MAXSON; C. MARQUES. *Hiram Col., Hiram Col.*

2:00 MMM11 **23.02SA** Training data scientists of the future through the Neuroscience Information Framework. J. S. GRETHE; A. BANDROWSKI; J. CACHAT; A. GUPTA; S. LARSON; M. E. MARTONE; N. I. F. CONSORTIUM. *UCSD*.

3:00 MMM12 **23.03SA** The three NITRC's: Software, data and cloud computing for neuroscience. D. N. KENNEDY. *U. Massachusetts Med.*

4:00 MMM13 **23.04SA** Exploring virtual worlds in behavioural neuroscience education. T. H. GILBERT; T. H. GILBERT. *Athabasca Univ.*

1:00 MMM14 **23.05SA** The use of exergames during teach-learning process and neuroscience outreach activities. A. SHOLL-FRANCO; T. S. ASSIS; T. MAIA; G. ARANHA. *Univ. Fed Rio De Janeiro, Organização Ciências e Cognição, SEEDUC/RJ*.

2:00 MMM15 **23.06SA** Art-Science Clubs: Teaching neuroscience through art program. G. ARANHA; T. ASSIS; A. SHOLL-FRANCO. *Organizacao Ciencias e Cognicao, Univ. Federal do Rio de Janeiro, Secretaria de Educação do Estado do Rio de Janeiro, Univ. Federal do Rio de Janeiro*.

3:00 MMM16 **23.07SA** Collaborative student-faculty curricular design and teaching: Summer course and bootcamp. P. A. FORCELLI; B. QUEENAN; C. TAYLOR; C. LEONARD; L. ULLRICH. *Georgetown Univ., Georgetown Univ.*

4:00 MMM17 **23.08SA** Additional training opportunities for PhD students: Student representation on admissions committee. V. L. DARCEY; C. WINLAND; S. MILES; K. GALE. *Georgetown Univ., Georgetown Univ.*

1:00 MMM18 **23.09SA** Emotions and the body's theater: A workshop for neuroscience outreach and teaching. I. L. SILVA; E. DIAS JR.; F. B. CARDOSO; S. B. NASCIMENTO; A. SHOLL-FRANCO. *Univ. Federal Fluminense, Univ. Federal do Rio de Janeiro, Univ. Federal do Rio de Janeiro, Univ. Federal do Rio de Janeiro*.

2:00 MMM19 **23.10SA** Preparing for academic careers through the Tufts TEACRS Program. K. O'TOOLE; D. CANTU; C. MOORE; M. MCVEY. *Tufts Univ. Sch. of Med., Tufts Univ. Sch. of Med., Tufts Univ. Sch. of Med.*

3:00 MMM20 **23.11SA** PhD Career-Land, the game: A creative approach to professional development. S. AZMA; V. L. DARCEY; L. J. GAMBLE; H. S. GREENWALD. *Georgetown Univ., Natl. Inst. of Health, Clin. Ctr., The MITRE Corp.*

4:00 MMM21 **23.12SA** ▲ Neuroscience in the North: Rural outreach and distance education in Alaska using the Backyard Brains platform. A. ELLISON; M. HOFFMAN; B. TAYLOR; M. B. HARRIS. *Univ. Alaska Fairbanks, Univ. Alaska Fairbanks*.

1:00 MMM22 **23.13SA** Career training for aspiring neuroscientists. D. P. BALUCH; S. KAVUMA; L. HARRIS; A. GONZALES. *Arizona State Univ.*

2:00 MMM23 **23.14SA** Exploring the brain for fun: Teaching activities for teenagers. H. SANCHEZ-CASTILLO; A. RUIZ-GARCIA; I. ROSEMBERG; O. HURTADO LAGUERENN; D. B. PAZ-TREJO; P. ZARATE-GONZALEZ; J. VAZQUEZ-RAMIREZ; D. SOLTERO DE LA ROSA; K. DELGADO SALTIJERAL. *Univ. Nacional Autonoma De Mexico. Fac Psicologia, Clave Consultora Para La Ciudadania*.

3:00 MMM24 **23.15SA** ▲ Tactile images help students visualize STEM concepts. A. N. GONZALES; L. HARRIS; B. MARTINEZ; E. HASPER; T. HEDGPETH; R. A. WINDHORST; D. P. BALUCH. *Arizona State Univ.*

4:00 MMM25 **23.16SA** Portable neuron conduction velocity experiments using earthworms for the university and high school neuroscience teaching lab. K. M. SHANNON; G. GAGE; J. W. WILSON; T. MARZULLO. *Backyard Brains Inc, Backyard Brains Inc, Albion Col.*

1:00 MMM26 **23.17SA** Brain Busters: Proposing a training program to debunk neuromyths and build neuroscientific literacy skills in educators. S. F. SASSE; L. N. SCHNOLL; S. E. SMILEY; G. M. ABESAMIS. *Harvard Univ.*

2:00 MMM27 **23.18SA** Effects of a neurobiological explanation of sexual orientation on student attitudes towards lesbian, gay and transgender people. K. EDMISTON. *Vanderbilt Univ.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 MMM28 **23.19SA** ▲ Street Workshop for improving executive functions in children's social context in downtown of Guadalajara. C. A. CATAÑEDA NAVARRETE, SR. *Univ. of Guadalajara*.

4:00 MMM29 **23.20SA** Anticipation of learning to relax provokes stress. J. C. NEILL. *Long Island Univ.*

1:00 MMM30 **23.21SA** VideoPanels: A new form of scientific communication. A. V. SAMSONOVICH. *George Mason Univ.*

2:00 MMM31 **23.22SA** Neuroscience Direct: A user-driven, online guide to Open Access neuroscience. M. P. COLEMAN. *The Babraham Inst.*

3:00 MMM32 **23.23SA** ▲ Multiple intelligence theory in a science classroom. A. KODRA; I. SALAME. *The City Col. of New York, The City Col. of New York*.

4:00 MMM33 **23.24SA** Children with rare diseases: Social vision (on materials of Association for assistance to Rett syndrome patients). O. V. TIMUTSA, ESQ; L. MURTAZINA, specialist; V. MENDELEVICH, MD. *Assn. For Assistance To Rettsyndrome Patients, Kazan state medical university, Russia*.

THEME H POSTER

024. Neuroscience for K-12

Theme H posters remain on display Sat. 1:00 PM - Sun. 5:00 PM, with one-hour presentations occurring either Saturday (presentation number ending in (SA) or Sunday (SU) — San Diego Convention Center, Halls B-H

8:00 MMM34 **24.01SU** The 2013 international brain bee championship. F. WEI; J. MCCALL; N. R. MYSLINSKI. *Univ. Maryland Sch. Dent., Heidelberg Univ.*

9:00 MMM35 **24.02SU** The 2013 USA national brain bee. D. SEMINOWICZ; N. MYSLINSKI. *Univ. of Maryland, Baltimore, Univ. of Maryland Sch. of Dent.*

10:00 MMM36 **24.03SU** Inspiring students from disadvantaged urban centers through mentoring and tutoring for the Brain Bee competition. A. CHAUDHARI; N. MAKAR; S. W. LEVISON; T. NORMENT; M. SOTO-GREENE; D. PALMERI. *New Jersey Med. School, UMDNJ, Union City High Sch., New Jersey Med. School, UMDNJ, New Jersey Med. School, UMDNJ, New Jersey Med. School, UMDNJ.*

11:00 MMM37 **24.04SU** New Hampshire Chapter of the Society for Neuroscience connects local high school students to the field of neuroscience through the Upper Valley Brain Bee. M. A. SAMA; M. M. ONAKOMAIYA; A. C. BENDER; H. H. YEH. *Dartmouth Med. Sch., Neurosci. Ctr. at Dartmouth, Geisel Sch. of Med. at Dartmouth, Geisel Sch. of Med. at Dartmouth, Geisel Sch. of Med. at Dartmouth.*

8:00 MMM38 **24.05SU** Neuroscience outreach at local schools: Project brainstorm. M. DESALVO; R. ROMERO-CALDERON; D. ALEXANDER; S. K. MADSEN; A. ATTAR; N. A. SUTHANA; C. A. GHIANI; W. GE; C. E. EVANS; J. B. WATSON; E. M. CARPENTER. *UCLA, UCLA, UCLA, UCLA, UCLA, UCLA, UCLA.*

9:00 MMM39 **24.06SU** Grow My Brain with Ned the Neuron introduces elementary age children to a range of behaviors promoting brain health and growth. E. WARP; T. MCGINN. *Kizoom.*

10:00 MMM40 **24.07SU** Map your own homunculus! An interactive graphical twist to a popular psychophysics experiment. R. J. CORLEW; T. WALKER. *Max Planck Florida Inst.*

11:00 MMM41 **24.08SU** Graduate school community outreach programs in neuroscience: Classroom workshops and an annual national science competition. J. MCCALL. *Spinal Cord Injury Ctr.*

8:00 MMM42 **24.09SU** Similar brains: An interactive joint program for Jewish and Arab teenagers at the Bloomfield science museum Jerusalem. A. STARK-INBAR; V. GUR BEN SHITRIT. *Univ. of California, Berkeley, Bloomfield Sci. Museum Jerusalem.*

9:00 MMM43 **24.10SU** A neuroscience pull-out gifted program in a high school in Hong Kong: Connection of neurodegenerative diseases and traditional Chinese medicine in research-based learning. K. SUEN; M. LI; W. CHAN; R. C. CHANG. *Po Leung Kuk Laws Fndn. Col., The Univ. of Hong Kong.*

10:00 MMM44 **24.11SU** From neurons to perception: Using art to elucidate the visual system. A. L. JUAVINETT; A. WOLFE. *The Salk Inst. for Biol. Studies, Grossmont High Sch.*

11:00 MMM45 **24.12SU** ▲ Neuroscience education through student-led investigations in an extracurricular setting. M. A. LU; A. PARSEGIAN; M. C. FIELDS. *Sidwell Friends Sch., Med. Univ. of South Carolina.*

8:00 MMM46 **24.13SU** ▲ Hands on science event focuses on brain awareness. L. HARRIS; A. GONZALES; S. KAVUMA; R. BRUBAKER; J. J. FAUST; D. P. BALUCH. *Arizona State Univ.*

9:00 NNN1 **24.14SU** The Northwestern University Brain Awareness Outreach organization takes a multi-faceted approach to bring neuroscience to Chicago area public schools. S. HATTORI; M. SCHROEDER; J. WILSON; D. SCHEENWEIS. *Northwestern Univ.*

10:00 NNN2 **24.15SU** Competitive EMG-based gaming platform as a demonstration of the principles of sensorimotor neural engineering. J. D. WANDER; D. SARMA; V. PARAMASIVAM. *Univ. of Washington, Univ. of Washington.*

11:00 NNN3 **24.16SU** Growing neuroscientists: Sparking an interest in elementary students. J. J. QUINN; I. DAMAS-VANNUCCHI; K. MARTIN; L. POWERS; S. E. PULLINS; M. RENDA; K. M. RESER; R. RONAU; M. SCHAEFER; R. A. SKIPPER; J. WILBER; B. WILKINS; M. WINFIELD. *Miami Univ.*

8:00 NNN4 **24.17SU** Bringing Neuroscience to K-12 students in the higher San Diego area. O. NATERA; S. ALFONSO; T. SPRAGUE; A. PETERS; R. TSUNEMOTO; M. LAU; E. KAESTNER; A. E. GOETZ; S. LEINWAND; J. KIGGINS. *Univ. of California- San Diego.*

9:00 NNN5 **24.18SU** The Scientist of the Future Program: integrating neuroscience and education. R. SAVOLDI; R. FUENTES; M. A. L. NICOLELIS; E. MORYA. *Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Duke Univ., Duke Univ., Duke Univ., Duke Univ., Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal.*

10:00 NNN6 **24.19SU** Moving a university neuropharmacology class into high schools. L. E. MARTIN-MORRIS; H. T. BUCKLAND; A. S. RAINWATER; S. L. CUNNINGHAM; S. L. VAN ALSTYNE. *Univ. of Washington, Univ. of Washington, Bothell High Sch., Puget Sound Educational Service District.*

11:00 NNN7 **24.20SU** Teaching brain morphology by immunohistochemical staining methods for high school students. P. F. CAVALCANTI; P. M. I. SCHNEIDER; T. FAGGION VINHOLO; R. SAVOLDI; A. C. B. KUNICKI; E. MORYA; R. FUENTES; M. A. L. NICOLELIS; M. A. FREIRE. *UFRN, Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Mauricio de Nassau Fac., Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Duke Univ., Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

8:00 NNN8 **24.21SU** A high school laboratory course to investigate the effects of alcohol on *C. elegans.* S. W. LEE; D. A. DEROSA; P. A. LIPTON. *Boston Univ.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 NNN9 **24.22SU** How understanding neuroscience impacts teachers' pedagogical beliefs. S. GUZEY; G. ROEHRIG; J. M. DUBINSKY. *Univ. of Minnesota, Univ. of Minnesota.*

10:00 NNN10 **24.23SU** How 'I feel you' depends on how I feel: Influence of affective state and personality on ratings of vocal emotion. M. D. MULLANE; M. DIFLEY; A. CHIBA. *UCSD, Univ. of California San Diego.*

11:00 NNN11 **24.24SU** Sensory integration in socio-cultural development and education of children with pervasive developmental disorder. E. DIAS, JR; B. FONSECA; E. FREITAS; G. ARANHA; A. SHOLL-FRANCO. *Univ. Federal Do Rio De Janeiro, Univ. Federal do Rio de Janeiro, APPA, Organização Ciências e Cognição, Univ. Federal do Rio de Janeiro.*

8:00 NNN12 **24.25SU** ▲ Making an easier mirror visual feedback setup for rehabilitation of pediatric and other patients with hemiparesis. S. J. PFEIFER; E. L. ALTSCHULER. *East High Sch., New Jersey Med. Sch.*

THEME H POSTER

025. Brain Awareness Week Activities

Theme H posters remain on display Sat. 1:00 PM - Sun. 5:00 PM, with one-hour presentations occurring either Saturday (presentation number ending in (SA) or Sunday (SU) — San Diego Convention Center, Halls B-H

8:00 NNN13 **25.01SU** Brain Awareness Week activities expand city-wide across multiple institutions and groups with minimal organization. K. REMOLE; H. MCKELLAR; H. BOWLING; C. CAIN; P. CROXSON; L. FRIEDMAN; A. HILL; A. KALMBACH; C. MELENDEZ-VASQUEZ; J. GARBARINO; W. YU. *Columbia Univ., NYU Sch. of Med., Hunter Col., Icahn Sch. of Med. at Mount Sinai , The Rockefeller Univ.*

9:00 NNN14 **25.02SU** A national campaign of Brain Awareness Week in Brazil. M. M. FROES; C. H. BUCK; N. GARCIA-CAIRASCO; J. QUILLFELDT; C. HEDIN-PEREIRA. *Fed Univ. Rio de Janeiro, Federal Univ. of Rio de Janeiro, State Univ. of São Paulo, Federal Univ. of Rio Grande do Sul, Federal Univ. of Rio de Janeiro.*

10:00 NNN15 **25.03SU** UCLA's Brain Awareness Week 2013: An analysis of its impact on K-12 students. D. ALEXANDER; M. DESALVO; S. K. MADSEN; A. ATTAR; N. SUTHANA; C. A. GHIANI; W. GE; R. ROMERO-CALDERON; C. E. EVANS; J. B. WATSON; E. M. CARPENTER. *UCLA, UCLA, UCLA Sch. Med.*

11:00 NNN16 **25.04SU** From three through ninety three: The Brain Awareness Week experience in brazil. A. FERNANDES; P. BERTTI; E. H. L. UMEOKA; P. D. PEREIRA; J. TEJADA; M. L. DAL-CÓL; J. A. CORTES DE OLIVEIRA; F. DEL VECCHIO; N. GARCIA-CAIRASCO; J. C. SANTOS. *Univ. of São Paulo, Univ. of São Paulo, Univ. of São Paulo.*

8:00 NNN17 **25.05SU** Utah Brain Awareness Week 2013: making waves. J. M. CAHOON; J. T. YARCH; M. BIJANZADEH; H. XU; S. N. REDMON; T. DAHL; A. HAACK; B. J. CURTIS; F. FURMANOV; A. DAVIS. *Univ. of Utah, Univ. of Utah, Univ. of Utah, Univ. of Utah.*

9:00 NNN18 **25.06SU** Bloomsburg University's Brain Awareness Week: Outreach to preschool, elementary, middle, high school, and university students in central Pennsylvania. J. A. JOHNSON; L. E. GILL; K. M. HANAWAY. *Bloomsburg Univ., Bloomsburg Univ. of PA.*

10:00 NNN19 **25.07SU** Art, science, and hockey: Carleton university's Brain Awareness Week. H. A. MACKAY; Z. R. PATTERSON; V. ST-ONGE; A. ABIZAID; R. GABRYS; R. MCQUAID; O. MCINNIS; N. RUSTOM; T. RODRIGUES; S. HANEA; S. HUDSON; S. J. KING; R. COMBA; S. CAHILL; B. C. WARTMAN; T. PARNO; F. AL-YAWER; C. RUDYK; C. SMITH; M. WELLMAN. *Carleton Univ.*

11:00 NNN20 **25.08SU** 2013 regional brain awareness program in eastern Kentucky. I. M. WHITE; K. HAURIS; W. WHITE. *Morehead State Univ.*

8:00 NNN21 **25.09SU** Brain education day at yale: A celebration of Brain Awareness Week. C. A. CALARCO; S. R. TAYLOR; N. K. WOODWARD. *Yale Univ. Sch. of Med., Yale Univ. Sch. of Med.*

9:00 NNN22 **25.10SU** ▲ The Brain Awareness Conference (BAC) to promote the history and future progress of neuroscience research. I. TRANG; A. HU; K. Y. TAHARA; S. TRAN; D. MING-HAI LAN; K. M. BIESZCZAD. *UC Irvine.*

10:00 NNN23 **25.11SU** Building the brain: interactive exhibit for Brain Awareness Week and the North Carolina science festival. D. L. ROBINSON; K. K. SULIK; S. K. O'LEARY-MOORE. *Univ. of North Carolina.*

THEME H POSTER

026. Neuroscience Community Outreach

Theme H posters remain on display Sat. 1:00 PM - Sun. 5:00 PM, with one-hour presentations occurring either Saturday (presentation number ending in (SA) or Sunday (SU) — San Diego Convention Center, Halls B-H

8:00 NNN24 **26.01SU** Developing return-to-academics protocol after suffering a concussion in student-athletes: A neuroscientific evidence based approach to improve education and awareness. E. HALL; C. KETCHAM; M. BAKER; J. MCCONNELL; K. PATEL; C. CRENSHAW; D. KLOSSNER; B. HAINLINE. *Elon Universtiy, Elon Universtiy, NCAA.*

9:00 NNN25 **26.02SU** Elon BrainCARE: Concussion education and outreach program for high school athletes. C. J. KETCHAM; E. E. HALL; S. E. FOLGER; W. R. BIXBY; P. C. MILLER; S. VALLABHAJOSULA; K. P. BARNES. *Elon Univ., Elon Univ.*

10:00 NNN26 **26.03SU** Concussion education as an undergraduate student organization at DePaul University. D. A. KOZLOWSKI; F. BRAND; T. GREIF. *DePaul Univ.*

11:00 NNN27 **26.04SU** Cross-institutional collaboration in neuroscience outreach: Undergraduates, graduates, middle and high schoolers get together to learn about the brain. W. GRIESAR; E. SHAW; K. LEHMAN; M. RUDOLPH; J. LEAKE. *Washington State Univ. Vancouver, Portland State Univ., Multnomah Educational Sch. District.*

8:00 NNN28 **26.05SU** The BRAIN Network: Establishing connections between educators and neuroscience. J. A. SEGGIO; A. ABDELAL. *Bridgewater State Univ., Bridgewater State Univ.*

9:00 NNN29 **26.06SU** Avengers assemble! Batman, Iron Man, neuroscience, and the general public. E. ZEHR. *Rehab Neurosci. Lab.*

10:00 NNN30 **26.07SU** Young (and old) minds want to know_ educational outreach efforts by the Florida State University (FSU) neuroscience program. C. L. ROBISON; A. M. STATHOPOULOS; S. B. OGDEN; C. LIEBERWIRTH. *Florida State Univ., Florida State Univ., Florida State Univ.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 NNN31 **26.08SU** Nameaneuron.org: An anatomically accurate 3D neuron database for crowdfunding of student neuroscience projects. D. P. MCCLOSKEY; T. DEDITS; M. ZIONS; T. A. SHOHATEE. *Col. Staten Island/ CUNY, Grad. Ctr. at CUNY, Col. of Staten Island/CUNY.*

8:00 NNN32 **26.09SU** The Oregon Health and Science University youth engaged in science initiative - YES!. M. MATTHEWS; K. AYKES; J. NIGG; D. FAIR. *Oregon Hlth. & Sci. Univ.*

9:00 NNN33 **26.10SU** Carry The One Radio: A series of short interviews with scientists. B. SEYBOLD; O. M. AHMED. *Univ. of California - San Francisco.*

10:00 NNN34 **26.11SU** Still building the neuroscientific community through the next generation in Jackson, Mississippi. L. N. BELOATE; M. O. BOHLEN; J. W. DUNCAN; L. GOLDEN; W. L. WOOLVERTON. *Univ. of Mississippi Med. Center, Program In Neurosci., Mississippi Chapter, Society for Neurosci., Univ. of Mississippi Med. Center, Dept. of Neurobio. and Anatom. Sci., Univ. of Mississippi Med. Center, Dept. of Psychiatry and Human Behavior.*

11:00 NNN35 **26.12SU** University of New England center for excellence in neuroscience outreach program. A. L. DEAL; K. J. ERICKSON; E. J. BILSKY; M. A. BURMAN. *Univ. of New England, Univ. of New England.*

8:00 NNN36 **26.13SU** Systems neuroscience and architectural design. S. GEPSHTEIN. *The Salk Inst. for Biol. Studies.*

THEME H POSTER

027. Ethics and Policy

Theme H posters remain on display Sat. 1:00 PM - Sun. 5:00 PM, with one-hour presentations occurring either Saturday (presentation number ending in (SA) or Sunday (SU) — San Diego Convention Center, Halls B-H

Sat. 1:00 PM - 5:00 PM — Halls B-H

1:00 NNN37 **27.01SA** Neurobioethics and christian anthropology: Ethical framework for contextualizing neuroenhancement. D. C. LARRIVEE; A. GINI. *Roman Catholic Diocese of Charleston Educational Outreach Office, San Camillo Forlanini Med. Ctr.*

2:00 NNN38 **27.02SA** The neuroscientist pledge and other ways of opposing the misuse of neuroscience for “National Security”. C. C. BELL. *Oregon Hlth. and Sci. Univ.*

3:00 NNN39 **27.03SA** Social dimensions and ethical issues in the use of embodied modeling with autonomous agents in neuroscience research. A. K. LEE; A. LAM; E. L. OHAYON. *Green Neurosci. Lab, Neurolinx Res. Inst., Univ. of Toronto Epilepsy Res. Group, Salk Inst. for Biol. Studies*.

4:00 NNN40 **27.04SA** ▲ On the practice of replicating an electrophysiology study with the Center for Open Science. M. LEWIS; M. PITTS. *Reed Col.*

1:00 NNN41 **27.05SA** Print media coverage of brain imaging studies addressing medically unexplained symptoms. L. BAUDET; R. POTIER; J. KONSMAN. *CRPMS EAD 3522 Psychoanalysis, Med. & Society, Univ. Paris Diderot, CNRS UMR 5536 RMSB / Univ. Bordeaux*.

2:00 NNN42 **27.06SA** Providing neuroimaging incidental finding reports to all research participants: What’s the harm? C. E. COLE; J. P. GLUCK; J. M. SHOEMAKER; M. T. HOLDSWORTH; L. E. PETREE; D. L. HELITZER; R. SCHRADER; J. P. PHILLIPS. *Mind Res. Network, Univ. of New Mexico, Kennedy Inst. of Ethics, Univ. of New Mexico, Univ. of New Mexico, Univ. of New Mexico, Univ. of New Mexico Hlth. Sci. Ctr.*

3:00 NNN43 **27.07SA** Sad Cyborg. The problem of disembodiment in Andy Clark’s approach to human identity. L. E. ECHARTE. *Univ. of Navarra*.

4:00 NNN44 **27.08SA** Adverse childhood experiences at the intersection of neuroscience, policy, and children’s health. K. SRIPADA. *Norwegian Univ. of Sci. and Technol.*

1:00 NNN45 **27.09SA** The great divide: Disparate perspectives among participants, researchers and IRB members regarding incidental finding disclosure. L. E. PETREE; D. L. HELITZER; J. M. SHOEMAKER; J. P. PHILLIPS; C. E. COLE; J. P. GLUCK; R. SCHRADER; M. T. HOLDSWORTH. *Mind Res. Network, Univ. of New Mexico, Mind Res. Network, Univ. of New Mexico, Univ. of New Mexico, Kennedy Inst. of Ethics, Univ. of New Mexico, Univ. of New Mexico*.

2:00 NNN46 **27.10SA** Introducing Neuroethics to students in law, health sciences, and the humanities. L. S. SIMO. *Northwestern Univ.*

3:00 NNN47 **27.11SA** Ethical challenges of large-scale brain simulations. M. CHRISTEN. *Univ. of Zurich*.

4:00 NNN48 **27.12SA** Towards a policy for the collection, storage and use of human embryonic and fetal tissue for neuroscience research. S. LINDSAY; I. BYSTRON; S. WOODS; V. OTELLIN; T. WIERZBA-BOBROWICZ; P. RAKIC; C. BLAKEMORE. *Inst. of Genet. Med. , Newcastle Univ., Univ. of Oxford, PEALS Res. Centre, Newcastle Univ., Inst. of Physiol., Inst. of Psychiatry and Neurol., Yale Univ. Sch. of Med.*

1:00 NNN49 **27.13SA** Dementia 2.0: Information-sharing about Alzheimer disease on twitter. J. M. ROBILLARD; T. W. JOHNSON; B. L. BEATTIE; J. ILLES. *Univ. British Columb*.

2:00 NNN50 **27.14SA** Mismatch between practice and policy for maintaining confidentiality in the peer review process. W. HAYWARD; L. HEYBURN; R. M. HARRINGTON; K. GALE. *Georgetown Univ.*

3:00 NNN51 **27.15SA** Drugs targeting brain hemeoxygenase system in cardiac arrest could be crucial for neuroprotection. A feature that requires new focus for better health care. A. K. PANDEY; A. SHARMA; R. PATNAIK; D. F. MURESANU; L. WIKLUND; H. S. SHARMA. *Senior Res. Fellow, IIT-BHU, Uppsala Univ. Hosp., Indian Inst. of Technology, Banaras Hindu Univ., Univ. of Med. & Pharm.*

4:00 NNN52 **27.16SA** Multimodal animal experiments to simulate clinical situation of disease processes for better therapeutic strategies in neurological disease are the need of the hour. R. PATNAIK; A. SHARMA; H. S. SHARMA. *Banaras Hindu University, Inst. Technol., Uppsala Univ. Hosp.*

1:00 NNN53 **27.17SA** Targeting drugs to modulate the CNS ubiquitin system : A novel approach to achieving neuroprotection that merits focus in neuroscience research. D. F. MURESANU; A. SHARMA; S. D. SKAPER; H. S. SHARMA. *ROMANIAN SOCIETY FOR THE STUDY OF NEUROPROTECTION AND NEUROPLASTICITY, Uppsala Univ. Hosp., Univ. of Padova*.

2:00 NNN54 **27.18SA** Age structure and gender differences of Stroke. T. I. NATHANIEL; M. OKON; A. I. NATHANIEL. *Univ. of South Carolina Sch. of Med. At Greenville, Obafemi Awolowo Univ., North Greenville Univ. Tigerville*.

3:00 NNN55 **27.19SA** Environmental interactions in neurological diseases and therapy can’t be ignored. L. FENG; A. SHARMA; H. S. SHARMA. *Bethune Intl. Peace Hosp., Uppsala Univ. Hosp.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

125. Patterning of Midbrain and Diencephalons

Theme A: Development

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

8:00 A1 **125.01** Microcolumnar gap junction network of excitatory neurons in neocortical layer 5 of neonatal mice. N. NAKAGAWA*; N. MATSUMOTO; M. SAEKI; T. HOSOYA. *RIKEN Brain Sci. Inst.*

9:00 A2 **125.02** A developmentally compromised serotonergic system is associated with reduced serotonin neuronal activation in response to stress: The role of fibroblast growth factor 8. L. R. BROOKS*; R. A. WOOLAVER; C. L. ENIX; C. A. LOWRY; P. TSAI. *Univ. of Colorado Boulder.*

10:00 A3 **125.03** The effect of early visual deprivation on thalamic innervation by cortical layer VIb and VI projections. E. GRANT*; A. HOERDER-SUABEDISSEN; Z. MOLNÁR. *Univ. of Oxford.*

11:00 A4 **125.04** Wnt ligand expression pattern analysis in the Zebrafish embryonic central nervous system. S. PANAHI*; R. DUNCAN; R. DORSKY. *Univ. of Utah.*

8:00 A5 **125.05** Irx3 and Pax6 establish differential competence for the Shh-mediated induction of GABAergic and glutamatergic neurons of the thalamus. E. ROBERTSHAW*; K. MATSUMOTO; A. LUMSDEN; C. KIECKER. *King's Col. London.*

9:00 A6 **125.06** Effects of fluoxetine on brain and craniofacial development. M. J. CALIBUSO*; G. R. TEN EYCK. *Univ. of Hawaii At Hilo.*

10:00 A7 **125.07** The neurotoxin rotenone selectively reduces Nurr1-ir expression in the dopaminergic neurons of the rat substantia nigra (SN). M. GÓMEZ-CHAVARÍN*; D. C. ESQUIVEL-FRANCO; J. MARTÍNEZ-GUERRA; D. DÍAZ; G. GUTIERREZ-OSPINA. *UNAM-Biomedical Res. Institutute, UNAM-Faculty of Med.*

11:00 A8 **125.08** Primary cilia are crucial for Shh hedgehog-mediated dopaminergic neurogenesis in the embryonic midbrain. E. TASOURI*; M. GAZEA; T. HEIGL; C. GOJAK; J. FRANZEN; K. L. TUCKER; S. BLAESS. *Univ. of Heidelberg, Univ. of Bonn, Inst. for Physical Chem.*

8:00 A9 **125.09** Homeodomain transcription factor Engrailed 1 plays a dominant role in early embryonic mid-hindbrain patterning. W. M. KOUWENHOVEN*; J. V. VEENVLIET; M. P. SMIDT. *Univ. of Amsterdam.*

9:00 A10 **125.10** Electrophysiological and molecular development of rat substantia nigra pars compacta dopaminergic neurons. M. DUFOUR*; A. WOODHOUSE; J. AMENDOLA; J. GOAILLARD. *INSERM, Univ. of Tasmania, INSERM UMR1072.*

10:00 A11 **125.11** Misspecification of the thalamic eminence in Gli3Xt/Pdn mice suggests the diencephalic origin of mGluR1+ cells that migrate into the lateral olfactory tract. N. RUIZ-REIG; C. GIL-SANZ; A. ESPINOSA; B. ANDRES; F. TISSIR; M. STUDER; T. THEIL; A. FAIREN*. *Inst. de Neurociencias, CSIC - Univ. Miguel Hernandez, Scripps Res. Inst., Inst. of Neuroscience, Univ. of Louvain, Inst. de Biologie Valrose, Univ. de Nice – Sophia Antipolis, Ctr. for Integrative Physiology, Univ. of Edinburgh.*

11:00 A12 **125.12** Mesodiencephalic dopaminergic neuronal specification is under the influence of Wnt-signaling and not of Gli2A-mediated Shh-signaling. S. MESMAN*; L. VON OERTHEL; M. P. SMIDT. *Univ. of Amsterdam.*

8:00 A13 **125.13** Rx3 mediates retinal versus hypothalamic cell fate switch. Z. ZHANG*; N. KLENIN; D. LAI; H. INGRAHAM; D. M. KURRASCH. *Univ. of Calgary, Univ. of Calgary, Univ. of Calgary, The Univ. of California.*

9:00 A14 **125.14** Developmental toxicity of 3,5-dimethylaniline in fetal rats after maternal exposure. C. TSENG; Y. YANG; M. CHAO*. *Chung Yuan Christian Univ., Chung Yuan Christian Univ.*

POSTER

126. Axon Growth and Guidance: Chemotrophic Mechanisms I

Theme A: Development

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

8:00 A15 **126.01** GPR55 participates to the development of the nervous system. H. CHERIF*; A. ARGAW; B. CÉCYRE; S. DESGENT; A. BOUCHARD; J. GAGNON; K. MACKIE; J. BOUCHARD. *Jean-Francois Bouchard Laboratory, Optometry Sch., KU Leuven, CHUM-University of Montreal, Univ. of Sherbrooke, Univ. of Indianna.*

9:00 A16 **126.02** Semaphorin 5B prevents early entry of sensory afferent projections in the developing spinal cord. R. LIU; W. WANG; A. LEGG; T. P. O'CONNOR*. *Univ. British Columbia.*

10:00 A17 **126.03** ● FLRT2 regulates migration of Unc5D-positive cortical upper layer neurons. S. YAMAGISHI*; F. HAMPEL; D. DEL TORO; M. BASTMEYER; V. TARABYKIN; K. SATO; J. EGEA; R. KLEIN. *Hamamatsu Univ. Sch. of Med., Max-Planck Inst. of Neurobio., Karlsruhe Inst. of Technol. (KIT), Charité - Universitätsmedizin Berlin, Univ. de Lleida.*

11:00 A18 **126.04** **Unable to Attend.** Electric fields guide axons of retinal ganglion cells: galvanotropism revisited. M. YAMASHITA*. *Nara Med. Univ.*

8:00 A19 **126.05** More than one Wnt signaling pathway is required for axon guidance. E. C. AVILES*; E. T. STOECKLI. *Univ. of Zurich.*

9:00 A20 **126.06** Role of Sip1 in orchestrating neocortical connectivity. S. SRIVATSA*; S. PARTHASARATHY; K. YAN; Z. MOLNAR; V. TARABYKIN. *Inst. for Cell and Neurobio., Intl. Max Plank research Sch., Dept. of Physiology, Anat. and Genetics, Univ. of Oxford.*

10:00 A21 **126.07** VEGFR1: A novel regulator of GnRH-1 neuronal migration. E. FLANNERY*; D. DONAHUE; S. WRAY. *NINDS, NIH, US Army Med. Res. and Material Command, USACEHR.*

11:00 A22 **126.08** Controlling GDNF-Ret signaling by Lrig family members. F. C. ALSINA*; P. A. FONTANET; F. J. HITA; D. IRALA; F. LEDDA; G. PARATCHA. *Inst. De Biología Celular Y Neurociencia Prof. E. De Robertis, UBA-CONICET.*

8:00 A23 **126.09** ▲ Coronin-1 mediates hierarchal neurotrophin signaling required for sympathetic neuron target innervation. J. PARK*; D. SUO; C. D. DEPPMANN. *Univ. of Virginia.*

9:00 A24 **126.10** Neurite growth dynamics on microstructured gradients during early neuronal polarity. S. MEFFERT*; M. PABST; A. OFFENHÄUSSER. *Forschungszentrum Jülich.*

10:00 A25 **126.11** Role of the cilia protein Arl13b in neuronal non-canonical Shh signaling. L. E. MARIANI*; T. CASPARY. *Emory Univ.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 A26 **126.12** The role of mitochondrial fission/fusion in CNS axon regeneration. A. KREYMERMAN*; M. STEKETEE; Y. WANG; J. L. GOLDBERG. *Bascom Palmer Eye Institute, Univ. of Miami.*

8:00 B1 **126.13** Local translation of Down syndrome cell adhesion molecule in axon growth and guidance. S. JAIN*; K. WELSHHANS. *Kent State Univ.*

9:00 B2 **126.14** Draxin functions in development of brain circuits. Y. SHINMYO*; A. RIYADH; I. NASER; G. AHMED; M. HOSSAIN; H. TAKEBAYASHI; K. OHTA; H. TANAKA. *Kumamoto Univ.*

10:00 B3 **126.15** Selective deletion of the cannabinoid receptor CB1 from developing cortical pyramidal cells dramatically impairs postnatal development and dysregulates global activity patterns in mature cortical structures. M. I. DAVIS*; D. A. KUPFERSCHMIDT; A. FENG; D. M. LOVINGER. *NIAAA.*

11:00 B4 **126.16** Cxcr4/Cxcl12 chemokine signaling paves the way for the initial trajectory of habenular axons. M.; N. GUERRERO; L. ARMIJO; D. ROJAS-RIVERA; K. PALMA; A. COLOMBO; C. HETZ; M. L. CONCHA. *Univ. de Chile, Univ. de Chile.*

8:00 B5 **126.17** Serotonergic axons navigate through the neural tube using floor plate signals. M. KIM*; C. WILHELM; H. LEE; T. M. FONTELONGA; G. S. MASTICK. *Univ. of Nevada, Reno.*

9:00 B6 **126.18** Serotonin receptors regulate neurite growth in retinal ganglion cells. D. W. PITATHOMAS*; E. TRAKHTENBERG; S. FERNANDEZ; M. I. MORKIN; Y. WANG; G. M. MLACKER; J. SHECHTER; X. LIU; S. YANG; K. H. PATEL; J. L. GOLDBERG. *Univ. of Miami, Univ. of Miami, UC San Diego.*

10:00 B7 **126.19** Protein Digital Nanodot Gradients with adjustable reference surfaces to investigate axonal migration in response to nanopatterned cues. S. G. RICOULT*; G. H. THOMPSON-STECKEL; G. ONGO; J. P. CORREIA; T. E. KENNEDY; D. JUNCKER. *McGill Univ.*

11:00 B8 **126.20** Transcription factors Lmx1a and Lmx1b regulate PlexinC1 expression and axon targeting of midbrain dopamine neurons. A. CHABRAT; E. METZAKOPIAN; P. DE KONINCK*; S. ANG; M. LEVESQUE. *Laval Univ., Ctr. de recherche de l'Institut universitaire en santé mentale de Québec, Natl. institute for medical research, Laval Univ.*

8:00 B9 **126.21** Neuronal basic helix-loop-helix proteins Neurod2/6 regulate cortical commissure formation before midline interactions. I. BORMUTH*; K. YAN; T. YONEMASU; M. GUMMERT; M. ZHANG; S. WICHERT; O. GRISHINA; A. PIEPER; W. ZHANG; S. GOEBBELS; V. TARABYKIN; M. H. SCHWAB. *Charite - Universitätsmedizin Berlin, Max Planck Inst. of Exptl. Med., Univ. of Muenster.*

9:00 B10 **126.22** Interaction of neuronal cells with nanotopographies and the impact of nanotopographical noise during neurite path finding. M. CECCHINI*; I. TONAZZINI; S. MEUCCI; F. BELTRAM. *Nest,Istituto Nanoscienze-Cnr and Scuola Normale Superiore.*

POSTER

127. Regeneration: PNS I

Theme A: Development

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

8:00 B11 **127.01** Genetic deletion of low-density lipoprotein receptor-related protein (LRP1) in Schwann cells regulates axonal regeneration. W. M. CAMPANA*; T. ISHIKAWA; R. REGESTAM; K. HENRY; S. ORITA; S. OHTORI; K. TAKAHASHI. *UCSD, Chiba Univ.*

9:00 B12 **127.02** Selective antagonism of the muscarinic acetylcholine receptor type 1 activates AMPK, augments neurite outgrowth and reverses diabetic sensory neuropathy. D. R. SMITH*; S. K. ROY CHOWDHURY; A. SALEH; L. P. KOTRA; K. FRIZZI; A. QUACH; N. A. CALCUTT; P. FERNYHOUGH. *St. Boniface Res. Ctr., Univ. of Toronto, UCSD, Univ. of Manitoba.*

10:00 B13 **127.03** Role of RhoA/ROCK pathway in axon regeneration of peripheral nerve fibers. A. R. JOSHI*; I. BOBYLEV; G. ZHANG; K. SHEIKH; H. LEHMANN. *Univ. Hosp. of Cologne, Univ. of Texas.*

11:00 B14 **127.04** mTOR activation levels increase in nerves in response to applied strain. J. M. LOVE*; S. B. SHAH. *Univ. of Maryland, Col. Park, UCSD.*

8:00 B15 **127.05** Luman/CREB3 - a novel importin-dependent axonal retrograde injury signal that promotes intrinsic axonal outgrowth in injured sensory neurons. Z. YING*; V. MISRA; V. M. K. VERGE. *Cameco MS Neurosci. Res. Center, Univ. of Saskatchewan, Univ. of Saskatchewan.*

9:00 B16 **127.06** Axonal regeneration guided by three dimensional gradients of nerve growth factor. N. Z. ALSMADI*; P. LOFTI; J. RAZAL; M. ROMERO-ORTEGA. *Univ. of Texas At Arlington, Univ. of Texas Southwestern Med. Ctr., Univ. of Wollongong Australia, Univ. of Texas At Arlington.*

10:00 B17 **127.07** Tumor suppressor protein BRCA1 regulates the peripheral nerve regenerative milieu. A. KRISHNAN*; J. MARTINEZ; C. CHENG; D. W. ZOCHODNE. *Univ. of Calgary.*

11:00 B18 **127.08** RNA-RBP competition restricts axonal localizing activity of Neuritin/CPG15 UTR segments. C. GOMES*; T. MERIANDA; S. YOO; J. L. TWISS. *Drexel Univ., Nemours Biomed. Res., Univ. of South Carolina.*

8:00 B19 **127.09** Elav-like rna-binding protein hud directly binds to both gap-43 and beta-actin mrnas *in vitro.* H. KIM*; S. YOO. *Nemours/A.I.duPont Hosp. for Children.*

9:00 B20 **127.10** Identifying regulatory elements mediating axonal mRNA stability and translation. P. SHARIFNIA*; Y. JIN. *UCSD, HHMI.*

10:00 B21 **127.11** Roles of RNA binding proteins in axon regeneration. L. CHEN*; Z. LIU; A. CHISHOLM; Y. JIN. *Universtity of California, San Diego, HHMI.*

11:00 B22 **127.12** Model and pilot studies of serial axon regeneration from spinal cord to muscle using primary rat and derived mouse motor neurons. C. R. CASHMAN*; R. MI; A. HÖKE. *Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med.*

8:00 B23 **127.13** Photochemical bonding for sutureless median nerve repair. M. BARTON; D. A. MAHNS*; J. MORLEY; M. STOODLEY; S. PILLER; A. LAUTO. *Univ. of Western Sydney, The Australian Sch. of Advanced Med.*

9:00 B24 **127.14** Neuronal death and persistence of functional deficits following neonatal nerve injury beyond postnatal day 5 (P5) in the rat. S. W. KEMP*; M. D. WOOD; E. H. LIU; C. D. CHIANG; T. GORDON; G. H. BORSCHEL. *The Hosp. For Sick Children/University of Toronto.*

10:00 B25 **127.15** Side-to-side bridges coupled with local delivery of glial-cell line derived neurotrophic factor (GDNF) for the improvement of peripheral nerve regeneration. M. C. ALVAREZ VERONESI*; C. LAFONTAINE; M. D. WOOD; T. GORDON; G. H. BORSCHEL. *The Hosp. For Sick Children.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 B26 **127.16** Using side-to-side nerve grafts to improve regenerative outcomes following peripheral nerve injury: Investigating the regulatory function of Neuregulin-1. M. HENDRY*; E. PLACHETA; T. GORDON; G. BORSCHEL. *Univ. of Toronto, Univ. of Vienna, Hosp. for Sick Children, Univ. of Toronto.*

8:00 B27 **127.17** Peripheral nerve regeneration is improved after delayed repair in rats when a denervated common peroneal (CP) nerve stump is 'protected' by nerves that cross side-to-side bridges from a donor tibial (TIB) nerve. T. GORDON*; A. LADAK; C. A. LAFONTAINE; J. J. ZHANG; A. SNYDER WARWICK; G. H. BORSCHEL. *Univ. of Toronto, Washington Univ. Sch. of Med.*

9:00 B28 **127.18** Electrical stimulation and testosterone propionate enhance regeneration-associated genes after sciatic nerve injury. R. M. MEADOWS*; K. P. MCMILLAN; R. J. BATKA; T. J. BROWN; D. R. SENGELAUB; K. J. JONES. *Indiana Univ. Sch. of Med., Indiana Univ., Richard L. Roudebush VA Med. Ctr., Indiana Univ.*

10:00 B29 **127.19** ▲ Characterization and identification of transcription factors associated with intestinal regeneration in Holothuria glaberrima. M. C. QUIÑONES*; J. FLORES; J. HERNANDEZ-PASOS; J. GARCIA-ARRARAS. *Univ. of Puerto Rico, Rio Piedras Campus.*

11:00 B30 **127.20** Lack of AHNAK affects motility and mechanical properties of Schwann cells. F. NOTHIAS*; S. SOARES; S. FÉRÉOL; R. FODIL; J. TAXI; N. TRICAUD; Y. VON BOXBERG. *CNRS-UMR7224, INSERM-U952, Upmc-Paris6, INSERM U955, CNRS ERL 7240, IMRB , Univ. Paris East Creteil (UPEC),, Team-AVENIR, Mol. mechanisms of myelination, U1051-INSERM.*

8:00 B31 **127.21** ● ▲ Neuroprotective and regenerative effects of fibrin sealant derived from snake venom combined with mononuclear stem cells after sciatic nerve neurorrhaphy in neonatal rats. N. P. BISCOLA*; S. U. BENITEZ; R. S. FERREIRA JUNIOR; B. BARRAVIERA; A. L. R. OLIVEIRA. *UNESP, UNICAMP.*

9:00 B32 **127.22** Transdifferentiation off bone marrow-derived stem cells into Schwann-like cells on micropatterned polymer substrates for peripheral nerve regeneration strategies. S. ZBARSKA*; A. D. SHARMA; E. M. PETERSON; M. E. MARTI; S. K. MALLAPRAGADA; D. S. SAKAGUCHI. *Iowa State Univ., Iowa State Univ., Iowa State Univ., Iowa State Univ.*

10:00 B33 **127.23** ▲ Sensory neuron plasticity during claw transformation in the snapping shrimp, Alpheus angulosus. E. TRACEY; A. PEREIRA; M. HUGHES; C. A. KOREY*. *Coll Charleston.*

11:00 B34 **127.24** Neurotrophin NT-3 enhances organized and oriented dorsal root ganglia sensory fiber elongation: An *in vitro* study. M. FORNARO*; A. GIOVANNELLI; A. FOGGETTI; L. MURATORI; G. NOVAJRA; S. GEUNA; I. PERROTEAU. *Midwestern Univ., Univ. of Turin.*

8:00 C1 **127.25** Modality-specific predegeneration of nerve graft enhances regeneration specificity. N. RAHBIN; C. LI; A. O'DALY; A. VYAS; F. NEAF; T. M. BRUSHART*. *Johns Hopkins.*

9:00 C2 **127.26** Carbon nanotubes enhance the regeneration capacity of aligned microstructures for peripheral nerve injury. H. AHN; J. KIM; J. C. KNOWLES; H. KIM; J. HYUN*. *Dankook Univ., Univ. Col. London, Dankook Univ., Dankook Univ. Col. of Med., Dankook Univ.*

10:00 C3 **127.27** Nicotine facilitates reinnervation of phenol-injured perivascular adrenergic nerves in the rat mesenteric resistance artery. H. KAWASAKI*; S. TAKATORI; K. HAGIWARA; Y. ZAMAMI; F. TAKAYAMA; P. TANGSUCHARIT; N. ONO. *Departmen of Clin. Pharm., Fac. of Pharmaceut. Sciences, Fukuoka Univ., Grad. Sch. of Medicine, Dent. and Pharmaceut. Sciences, Okayama Univ.*

POSTER

128. Monoamines

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

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

8:00 C4 **128.01** Differential regulation of GluN2B and GluA1 glutamate receptors *in vivo.* G. L. SNYDER*; S. CRUZ. *Intra-Cellular Therapies, Inc.*

9:00 C5 **128.02** DARPP-32 interacts with adducin. O. ENGMANN*; L. GASMI; A. C. NAIRN; D. GILLIGAN; M. PICCIOTTO; P. GREENGARD; D. HERVÉ; J. GIRAULT. *INSERM, Yale Univ., SUNY Upstate Med. Univ., The Rockefeller Univ.*

10:00 C6 **128.03** Functional regulation of the human tryptophan hydroxylase-2 promoter by estradiol via estrogen receptor-beta. R. HIROI*; R. J. HANDA. *Arizona State Univ., Univ. of Arizona Col. of Med. Phoenix.*

11:00 C7 **128.04** The role of erbB4 in dopaminergic system. S. CAO*; H. GENG; B. HONG; C. YANG; Y. LI; Y. ZHANG; X. LI. *Zhejiang Univ.*

8:00 C8 **128.05** Dopamine D1 receptors couple to an EPAC2/ERK pathway in cultured retinal cells. C. C. PORTUGAL*; T. ENCARNAÇÃO; R. SOCODATO; R. PAES-DE-CARVALHO. *Federal Fluminense Univ.*

9:00 C9 **128.06** Dopamine-induced ascorbate release in cultured retinal cells: Role of D1 receptors and the exchange protein directly activated by cyclic adenosine monophosphate (EPAC). T. G. ENCARNAÇÃO*; C. C. PORTUGAL; F. N. SANTIAGO; R. SOCODATO; R. PAES-DE-CARVALHO. *Univ. Federal Fluminense.*

10:00 C10 **128.07** Dopamine D1 receptors form a signaling platform with Csk/Src to promote NMDA hypofunction in neuronal cells. R. SOCODATO*; F. N. SANTIAGO; C. C. PORTUGAL; I. DOMITH; T. G. ENCARNAÇÃO; E. C. LOIOLA; A. L. M. VENTURA; M. COSSENZA; R. PAES-DE-CARVALHO. *Federal Fluminense Univ.*

11:00 C11 **128.08** Minimal impact of prenatal nicotine on the synaptic organization and cholinergic innervation of the rat ventral tegmental area. N. V. OMELCHENKO*; S. R. SESACK. *West Liberty Univ., Univ. of Pittsburgh.*

8:00 C12 **128.09** Tyrosine hydroxylase is locally synthesized in the axons of noradrenergic sympathetic neurons. N. M. GERVASI; S. N. VOHRA; M. A. MACGIBENY; M. PATEL; A. N. KAR; A. E. GIOIO*; B. B. KAPLAN. *NIH, NIMH-, NIH, NIMH-, NIH, NIMH-.*

9:00 C13 **128.10** Electrochemical monitoring extracellular catecholamines in the olfactory tubercle and ventral pallidum of the rat. J. PARK*; J. PARK. *Univ. At Buffalo.*

10:00 C14 **128.11** High frequency stimulation of the medial prefrontal cortex affects serotonin in the dorsal raphe. L. SREJIC*; K. M. WOOD; P. HASHEMI; W. D. HUTCHISON. *Univ. of Toronto, Wayne State Univ., Toronto Western Hosp.*

11:00 C15 **128.12** A model for amphetamine mobilizing newly synthesized dopamine to extracellular space. L. J. WALLACE*. *Ohio State Univ.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 C16 **128.13** Reprogramming of neurons in the Prefrontal Cortex induced by specific D2R ablation into mesencephalic dopaminergic neurons: A link to psychotic-like disorders. K. BRAMI-CHERRIER*; A. ANZALONE; M. RAMOS; C. DE MEI; F. MACCIARDI; E. BORRELLI. *Univ. of California Irvine.*

9:00 C17 **128.14** ● Changes in neurochemistry and seizure susceptibility in genetically modified mice heterozygous for the schizophrenia and bipolar disorder associated gene, Brd1. P. L. QVIST*; A. MØRK; J. ROOVERS; V. PATERNOSTER; T. FRYLAND; I. VARDYA; A. RAJKUMAR; K. FEJGIN; M. NYEGAARD; O. MORS; J. H. CHRISTENSEN; M. DIDRIKSEN; A. D. BØRGLUM. *Aarhus Univ., Aarhus Univ. Hosp., H. Lundbeck A/S, The Lundbeck Fndn. Initiative for Integrative Psychiatric Research, iPSYCH, Ctr. for Integrative Sequencing, iSEQ.*

10:00 C18 **128.15** Elevation of tyrosine levels increases dopamine metabolism and differentially affects potassium-induced dopamine efflux in prefrontal cortex and striatum of the rat. Z. BRODNIK; M. B. DOUBLE; G. E. JASKIW*. *Louis Stokes Cleveland DVAMC, Case Western Reserve Univ.*

11:00 C19 **128.16** High frequency deep brain stimulation of the lateral habenula in an animal model of antidepressant resistance. Y. KIM*; M. FRYE; K. LEE; S. J. TYE. *Deakin Univ., Mayo Clin., Mayo Clin.*

8:00 C20 **128.17** Selective silencing of a subpopulation of galanin-expressing noradrenergic neurons results in decreased cholinergic neuron number in the basal forebrain. J. DE MARCHENA*; F. C. ASHWORTH; P. JENSEN. *Natl. Inst. of Envrn. Hlth. Sci.*

9:00 C21 **128.18** Intermittent swim stress effects on anxiety behavior. T. A. WARNER*; C. A. LOWRY; N. P. STAFFORD; R. C. DRUGAN. *Univ. of New Hampshire, Univ. of Colorado.*

POSTER

129. Retrograde Messengers

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

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

8:00 C22 **129.01** Anandamide inhibits proliferation of oral squamous cell carcinoma. A. N. FLYNN*; B. L. SCHMIDT. *New York Univ., New York Univ.*

9:00 C23 **129.02** Endocannabinoid biosynthetic enzyme mRNA expression in ventral tegmental area dopaminergic and GABAergic cells. C. B. MERRILL*; Z. HOPKINS; J. G. EDWARDS. *Brigham Young Univ., Brigham Young Univ.*

10:00 C24 **129.03** ▲ The retinohypothalamic patwhay is involved in light-modulated endocannabinoid biosynthesis in the lateral hypothalamus. L. CRISTINO*; R. IMPERATORE; T. BECKER; A. DI SPIEZIO; M. BENTIVOGLIO; V. DI MARZO. *Italian Natl. Reseach Council, CNR, Univ. of Verona.*

11:00 C25 **129.04** Adolescent cannabinoid exposure permanently alters cortical oscillations and cognitive behavioral performance in adult mice. S. MULLINS RAVER*; S. HAUGHWOUT; A. KELLER. *Univ. of Maryland, Baltimore.*

8:00 C26 **129.05** Analysis of cis-regulatory polymorphisms in the cannabinoid receptor 1 locus, CNR1; implications for allele-specific transcriptional responses and drug response stratification. P. D. COWIE*; A. MACKENZIE. *Univ. of Aberdeen, Univ. of Aberdeen.*

9:00 C27 **129.06** Prefrontal cortical endogenous cannabinoid system transmission in dysbindin deficient mice. J. I. PEÑA BRAVO*; A. LAVIN. *Med. Univ. of South Carolina.*

10:00 C28 **129.07** Anti-inflammatory lipoxin A4 is an endogenous allosteric enhancer of CB1 cannabinoid receptor. F. A. PAMPLONA*; J. FERREIRA; O. MENEZES DE LIMA, JR; F. S. DUARTE; A. F. BENTO; S. FORNER; J. G. VILLARINHO; L. BELLOCHIO; C. T. WOTJAK; R. LERNER; K. MONORY; B. LUTZ; C. CANETTI; I. MATIAS; J. B. CALIXTO; G. MARSICANO; M. Z. P. GUIMARÃES; R. N. TAKAHASHI. *IDOR, Univ. Federal de Santa Catarina, Univ. Federal de Santa Maria, Inst. Natl. de la Santé et de la Recherche Médicale U862, NeuroCentre Magendie, Max Planck Inst. of Psychiatry, Univ. Med. Ctr. of the Johannes Gutenberg Univ., Univ. Federal do Rio de Janeiro.*

11:00 C29 **129.08** Molecular mechanisms and differential strain-dependence of CB1 signaling in the amygdala. J. C. GAMBLE-GEORGE*; O. GUNDUZ-CINAR; A. HOLMES; S. PATEL. *Vanderbilt Univ., Natl. Inst. on Alcoholism and Alcohol Abuse, NIH, Vanderbilt Univ. Sch. of Med., Vanderbilt Univ. Sch. of Med.*

8:00 C30 **129.09** ▲ Preferential localization of the endocannabinoid synthetic enzyme NAPE-PLD in glutamate axon terminals in the rat nucleus accumbens. E. KLINE; J. BALCITA-PEDICINO; Y. DONG; S. R. SESACK*. *Univ. of Pittsburgh.*

9:00 C31 **129.10** Positive allosteric modulation of the CB_1 receptor alleviates allodynia in a neuropathic pain model without cannabimimetic side effects in mice. B. M. IGNATOWSKA-JANKOWSKA*; G. L. BAILLIE; S. G. KINSEY; M. CROWE; S. GHOSH; S. T. O'NEAL; T. F. GAMAGE; J. L. WILEY; I. R. GREIG; C. ZANATO; M. ZANDA; R. A. ROSS; A. H. LICHTMAN. *Virginia Commonwealth Univ., Sch. of Med. Sciences, Inst. of Med. Sci., West Virginia Univ., Res. Triangle Inst.*

10:00 C32 **129.11** The role of endocannabinoid in long-term plasticity of vestibular GABAergic synapses and behavioral outcome in developing rats. W. SHI*; C. MA; D. SHUM; Y. CHAN. *The Univ. of Hong Kong, The Univ. of Hong Kong.*

11:00 C33 **129.12** Marked sub-domain dependent differences in neuronal signaling of type-1 cannabinoid receptors. D. LADARRE*; A. ROLAND; S. BIEDZINSKI; Z. LENKEI. *CNRS-ESPCI-PARISTECH, Harvard Univ.*

8:00 C34 **129.13** The effect of cannabinoids on GABA-A receptor dependent tonic inhibition in the dentate granule cells of hippocampus. D. PATI*; K. B. KELLY; C. I. MCKELVEY; C. J. FRAZIER. *Univ. of Florida.*

9:00 D1 **129.14** ● Neuronal effects of endocannabinoid upregulation in a rodent model of schizophrenia. D. D. AGUILAR*; D. J. LODGE. *UTHSCSA.*

10:00 D2 **129.15** N-(Pyridine-3-ylmethyl)oleamide as a new inhibitor of fatty acid amide hydrolase (FAAH). A. ALAFNAN; H. WU; C. KELLEY; T. J. MAHER; A. J. PINO-FIGUEROA*. *MCPHS Univ., MCPHS.*

11:00 D3 **129.16** Prelimbic cortex cannabinoid CB1 receptors modulate tachycardiac response in rats submitted to restraint stress. T. B. MORAES NETO*; A. FASSINI; F. M. A. CORREA; L. B. M. RESSTEL. *Univ. of São Paulo - Sch. of Med. of Ribeirão Preto.*

8:00 D4 **129.17** Neurochemical effects of fatty acid amide hydrolase inhibitor (URB597) on stressed rats. G. A. BEDSE*; R. COLANGELI; T. CASSANO; V. CUOMO; S. GAETANI. *Univ. of Rome, La Sapienza, Univ. of Foggia.*

9:00 D5 **129.18** Self-tuning of inhibition by endocannabinoids shapes spike-time precision in CA1 pyramidal neurons. O. CAILLARD*; F. DUBRUC; D. DUPRET. *INSERM UMR 1072, UNIS, MRC Anatom. Neuropharm. Unit.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

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10:00 D6 **129.19** Type 2 phosphodiesterase bridges the NO/cGMP pathway with the cAMP/PKA signaling cascade: A cross-talk revealed with biosensor imaging. P. VINCENT*; M. POLITO; L. R. V. CASTRO; D. PAUPARDIN-TRITSCH; K. JALINK; J. KLARENBEEK. *CNRS UPMC, UMR 7102, The Netherlands Cancer Inst.*

11:00 D7 **129.20** Rho-kinase plays a key role in balancing exocytosis and endocytosis of synaptic vesicles via regulating the level of phosphatidylinositol-4,5-bisphosphate. Z. TAOUFIQ; K. EGUCHI*; T. TAKAHASHI. *Okinawa Inst. of Sci. and Technol. Grad. Univ., Doshisha Univ. Grad. Sch. of Brain Sci.*

8:00 D8 **129.21** Hydrogen sulfide exerts depolarizing effects on neurons of the nucleus of the solitary tract. R. MALIK*; A. V. FERGUSON. *Queens Univ.*

9:00 D9 **129.22** Hydrogen Sulfide influences the electrical activity of subfornical organ neurons. M. KUKSIS*; A. V. FERGUSON. *Queen's Univ.*

10:00 D10 **129.23** Proteomic approach of nitrated tyrosine residues of protein kinase G-Iα. S. ITO*; J. LU; M. SHIMOJO; T. KATANO; H. UCHIDA; I. YAO. *Kansai Med. Univ.*

11:00 D11 **129.24** ● Teasing apart nitric oxide's role in erection. V. A. DAVIS*; S. R. BATTEN; C. LOURENCO; J. E. QUINTERO; F. POMERLEAU; P. HUETTL; G. A. GERHARDT; J. LARANJINHA; R. M. BARBOSA. *Univ. of Kentucky, Univ. of Coimbra.*

8:00 D12 **129.25** Regulation of p53 by nitric oxide. I. AHMED*; M. A. KOLDOBSKIY; G. P. HO; S. H. SNYDER. *Johns Hopkins Univ. Sch. of Med.*

9:00 D139:00 D13 **129.26** Intrinsic firing properties set basal calcium levels: Modulatory effects of nitric oxide on electrical activity and growth cone dynamics. S. ESTES*; L. ZHONG; K. TORNIERI; L. ARTINIAN; V. REHDER. *Georgia State Univ.*

POSTER

130. Neurotrophins: Synthesis, Processing, and Release

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

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

8:00 D14 **130.01** Simultaneous visualization of dense core and synaptic vesicles in hippocampal neurons. V. BHARAT*; B. COOPER; F. GÖTTFERT; H. MARTENS; S. W. HELL; C. DEAN. *European Neurosci. Inst., Max Planck Inst. for Exptl. Med., Max Planck Inst. for Biophysical Chem., Synaptic Systems GmbH.*

9:00 D15 **130.02** Long-term BDNF treatment: Combined functional effects strengthen excitatory synaptic connections in rat hippocampal cultures. R. RAUTI*; D. SCAINI; L. BALLERINI. *Univ. of Trieste, Elettra Synchrotron Light Source.*

10:00 D16 **130.03** Progranulin expression in the hippocampus between the adult and aged dogs. D. YOO*; I. HWANG; J. CHOI. *Seoul Natl. Univ., Kangwon Natl. Univ.*

11:00 D17-DP1 **130.04** Real-time activity-dependent neuronal secretion of nerve growth factor. L. GUO*; B. LUIKART; H. H. YEH. *Geisel Sch. of Med. at Dartmouth.*

8:00 D18 **130.05** Presynaptic NMDA receptor controls BDNF secretion from corticostriatal axons. H. PARK*; H. LU; M. POO. *UC Berkeley.*

9:00 D19 **130.06** ● Characterizing the role of the novel neuronal protein slitrk4 in cns function. I. DINCHEVA*; M. SAHAWNEH; D. JING; J. GIZA; E. KING; S. SHMELKOV; T. MILNER; S. RAFII; F. LEE. *Weill Cornell Med. Col., Weill Cornell Med. Col., New York Univ., The Rockefeller Univ.*

10:00 D20 **130.07** Cytoplasmic trafficking and recycling of BDNF-TrkB receptor complexes by real-time single quantum dot tracking in sensory and CNS neurons. T. VU*; A. VERMEHREN-SCHMAEDICK; T. JACOB; W. KRUEGER; D. RAMMUNO-JOHNSON; A. BALKOWIEC; K. A. LIDKE. *Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., Univ. of New Mexico, Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*

11:00 D21 **130.08** Molecular consequences of acute BDNF withdrawal from cultured hippocampal neurons. A. MARIGA*; S. GINSBERG; J. ZAVADIL; M. CHAO. *Abigail Mariga, New York Univ. Sch. of Med., New York Univ. Sch. of Med., Intl. Agency for Res. on Cancer.*

8:00 D22 **130.09** Chronic cocaine alters the Egr3/Nab2 molecular program in nucleus accumbens neurons. R. CHANDRA*; J. LENZ; E. FINKEL; C. FRANCIS; A. GANCARZ; G. SCHROEDER; D. DIETZ; M. LOBO. *Univ. of Maryland, Baltimore, The State Univ. of New York at Buffalo.*

9:00 D23 **130.10** Intrahippocampal injection of Ouabain activates NFkappaB and WNT-Beta CATENIN signaling pathways in rats. A. M. ORELLANA*; L. M. YSHII; A. E. BÖHMER; P. F. KINOSHITA; L. S. LIMA; D. Z. ANDREOTTI; E. M. KAWAMOTO; C. SCAVONE. *Univ. of São Paulo.*

10:00 D24 **130.11** proBDNF and its receptor p75NTR negatively regulate persistent activity in the entorhinal cortex. J. GIBON*; S. BUCKLEY; N. UNSAIN; P. SEGUELA; P. BARKER. *McGill Univ., Montreal Neurolog. Inst.*

11:00 D25 **130.12** BDNF-triggered synaptic activity changes in the developing hippocampus. D. NICULESCU*; K. MICHAELSEN-PREUSSE; Ü. GÜNER; C. LOHMANN. *Netherlands Inst. for Neurosci.*

8:00 D26 **130.13** The role of lithium in protecting hippocampal neurons from proNGF-induced death. S. J. GREENWOOD*; H. SCHARFMAN; K. TENG; B. HEMPSTEAD; W. FRIEDMAN. *Rutgers Univ., Nathan Kline Inst., Weill Cornell Med. Col.*

9:00 D27 **130.14** Factors released by sciatic nerve regulate intracellular calcium in hippocampal neurons. L. GARCIA FERNANDEZ*; M. TIRADO; J. CARBALLO; D. HERNANDEZ; C. CASTILLO. *Univ. Simon Bolivar, Inst. de Estudios Avanzados, Univ. Simón Bolívar.*

10:00 D28 **130.15** Oligomerization of p75NTR sheds light into its activation mechanism. A. ANASTASIA*; P. A. BARKER; M. V. CHAO; B. L. HEMPSTEAD. *Weill Med. Col. of Cornell Univ., McGill Univ., New York Univ.*

11:00 D29 **130.16** Relocation of activity-dependent neuronal genes to transcription factories. A. RICCIO*; C. POLICARPI; L. CREPALDI. *Univ. Col. London, Univ. Col. London.*

8:00 D30 **130.17** Investigating the role of SorCS2 in DRG satellite glial cell signaling following nerve injury. S. ELMEGAARD; M. RICHNER; L. T. PALLESEN; C. B. VAEGTER*. *Aarhus Univ.*

9:00 D31 **130.18** Signaling pathways underlying BDNF-induced endogenous cannabinoid release. L. ZHAO; E. S. LEVINE*. *Univ. Connecticut Hlth. Ctr.*

10:00 D32 **130.19** Electrical stimulation has opposing effects on glial cell line-derived neurotrophic factor expression in voluntary and involuntary muscle. J. VIANNEY*; J. M. SPITSBERGEN. *Western Michigan Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 D33 **130.20** CGRP regulates secretion of GDNF, IL-6 and CNTF from differentiated rat skeletal muscle cells. E. ROSA; J. CHA; J. R. BAIN; M. FAHNESTOCK*. *McMaster Univ., Univ. of Toronto, McMaster Univ.*

8:00 D34 **130.21** Zinc-mediated transactivation of TrkB regulates phosphorylation of the tyrosine phosphatase STEP. R. PODDAR; S. RAJAGOPAL; C. W. SHUTTLEWORTH; S. PAUL*. *Univ. New Mexico, Univ. New Mexico.*

9:00 D35 **130.22** c-Cbl mediates glucocorticoid-induced trkb signaling in neurons. C. D. PANDYA*; A. PILLAI. *Georgia Regents Univ.*

10:00 D36 **130.23** Identification of Ste20 kinases as novel adaptors of the neuronal receptor sortilin. L. T. PALLESEN*; C. B. VAEGTER; C. GUSTAFSEN; S. V. PETERSEN; P. S. MADSEN; C. M. PETERSEN. *MIND Centre, Aarhus Univ., Aarhus Univ.*

11:00 D37 **130.24** Evidence for a TrkB activated P75/JAK2/STAT3 complex in neurons. K. HOKENSON*; R. BENHAM; A. R. BROOKS-KAYAL; S. J. RUSSEK. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med., Boston Univ. Sch. of Med., Univ. of Colorado Denver- Anschutz Med. Campus.*

8:00 D38 **130.25** LRP1 signaling in neurons and neurite-generating cell lines is determined by ligand-specific co-receptor engagement. E. MANTUANO*; M. S. LAM; S. L. GONIAS. *Univ. of California San Diego.*

9:00 D39 **130.26** Comparative dynamics of neurotrophin-induced protein synthesis. H. L. BOWLING*; A. BHATTACHARYA; G. ZHANG; P. T. SMITH; K. KIRSHENBAUM; T. A. NEUBERT; E. KLANN; M. V. CHAO. *New York Univ., New York Univ., New York Univ. Sch. of Med., New York Univ., New York Univ. Sch. of Med.*

10:00 D40 **130.27** Identification and characterisation of novel nuclear targets of S-nitrosylation in neurons. J. ANDERSON*; M. GASPARI; A. RICCIO. *MRC Lab. For Mol. Cell Biol., Univ. di Catanzaro "Magna Græcia", MRC Lab. for Mol. Cell Biol.*

11:00 D41 **130.28** Heptamethoxyflavone, a citrus flavonoid, enhances brain-derived neurotrophic factor production and neurogenesis in the hippocampus following cerebral global ischemia in mice. S. OKUYAMA*; N. SHIMADA; M. MORITA; M. KAJI; A. SAWAMOTO; T. TERUGO; N. TOYODA; N. MAKIHATA; Y. AMAKURA; M. YOSHIMURA; T. YOSHIDA; M. NAKAJIMA; Y. FURUKAWA. *Col. of Pharmaceut. Sciences, Matsuyama Univ.*

8:00 D42 **130.29** ● Isolation and characterization of activators of ERK/MAPK from Citrus plants. Y. FURUKAWA*; S. OKUYAMA; Y. AMAKURA; S. WATANABE; M. NAKAJIMA; M. YOSHIMURA; T. YOSHIDA. *Matsuyama Univ.*

POSTER

131. Glutamate Uptake and Synaptic Modulation

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

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

8:00 E1 **131.01** The effects of glutamate transporter density on ambient glutamate levels. W. SUN; L. V. KALACHEV; M. P. KAVANAUGH*. *Ctr. For Structural and Functional Neuroscience, The Univ. of Montana, The Univ. of Montana.*

9:00 E2 **131.02** Elucidating the function of ambient glutamate & xct at the mouse synapse. L. E. WILLIAMS*; D. E. FEATHERSTONE. *Univ. of Illinois At Chicago.*

10:00 E3 **131.03** Determination of extracellular glutamate concentration in mixed culture of astrocytes and glioma cells. P. YAO*; D. KANG; R. LIN; W. WANG; Z. YE. *Fujian Med. Univ., Fujian Med. Univ. Affiliated First Hosp., Fujian Med. Univ., Univ. Washington.*

11:00 E4 **131.04** Co-release of glutamate and GABA on a vesicular level. J. ZIMMERMANN*; T. TRIMBUCH; C. ROSENMUND. *Charite Berlin.*

8:00 E5 **131.05** Glutamate uptake into mouse forebrain synaptosomes is primarily mediated by GLT-1 expressed in neurons. Y. SUN*; G. T. PETR; Y. ZHOU; C. MIRANDA; C. AOKI; N. C. DANBOLT; P. A. ROSENBERG. *Boston Children's Hosp., Harvard Med. Sch., Inst. of Basic Med. Sciences, Univ. of Oslo, New York Univ.*

9:00 E6 **131.06** Vesicular glutamate transporter expression level affects presynaptic release probability. M. A. HERMAN*; F. ACKERMANN; T. TRIMBUCH; C. ROSENMUND. *Charité Med. Univ.*

10:00 E7 **131.07** Glial and neuronal excitatory amino acid transporters differ in their sodium dependence of anion channel activity. C. B. DIVITO*; J. E. BOROWSKI; N. G. GLASGOW; D. E. TORRES-SALAZAR; J. W. JOHNSON; S. G. AMARA. *Univ. of Pittsburgh, Univ. of Pittsburgh, Natl. Inst. of Hlth.*

11:00 E8 **131.08** ● Effect of VGLUT inhibitors on glutamatergic synaptic transmission in the mouse hippocampus and prefrontal cortex. S. A. NEALE*; C. S. COPELAND; T. E. SALT. *Neurexpert, Inst. of Ophthalmology, Univ. Col. London.*

8:00 E9 **131.09** Glutamate uptake by GLT1 regulates neuronal network activity *in vitro.* B. R. MILLER*; C. WU; G. CECENAS; J. HUBBARD; G. GROSS. *Texas Wesleyan Univ., Univ. of North Texas.*

9:00 E10 **131.10** Cocaine impairs aspartate uptake in mouse frontal cortex via dopamine D1-receptor dependent mechanisms. M. F. SATHLER*; I. G. FREITAS; N. R. PECINALLI; B. STUTZ; F. G. DE MELLO; P. BHIDE; R. C. C. KUBRUSLY. *Federal Fluminense Univ., Federal Univ. of Rio de Janeiro, The Florida State Univ.*

10:00 E11 **131.11** GLAST deficiency facilitates the induction of tinnitus in mice. C. R. CEDERROTH*; C. HAN; S. SOMEYA; B. FABELLA; A. J. HUDSPETH. *HHMI and Rockefeller Univ., Univ. of Florida.*

POSTER

132. Network Interactions: Oscillations and Synchrony I

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

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

8:00 E12 **132.01** How complex can the co-modulation of dopamine and serotonin on prefrontal cortical rhythms be? D. WANG*; K. WONG-LIN. *Beijing Normal Univ., Univ. of Ulster.*

9:00 E13 **132.02** Neuregulin 1 enhances synchrony of prefrontal cortex neurons through inhibitory synapses. X. HOU*; X. LI; K. NI. *Inst. of Neurosci.*

10:00 E14 **132.03** 5-HT1a receptor activation hyperpolarizes pyramidal cells via GIRK channel activation and desynchronizes hippocampal gamma oscillations. A. D. JOHNSTON*; C. J. MCBAIN; A. FISAHN. *Karolinska Institutet, NIH.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 E15 **132.04** Intrinsic theta/gamma coupling properties along the septal-temporal axis of the mice subiculum area. N. GU*; B. AMILHON; J. JACKSON; G. DUCHARME; S. WILLIAMS. *Mcgill university, Douglas mental health university institute.*

8:00 E16 **132.05** The role of medial septum glutamatergic neurons in modulating activity within the septum and across the hippocampal network. J. ROBINSON; F. MANSEAU; S. WILLIAMS*. *McGill Univ.*

9:00 E17 **132.06** Modulation of hippocampal theta rhythm by optogenetic control of GABAergic projections from the medial septum. G. DUCHARME*; B. AMILHON; S. D. GLASGOW; A. ADAMANTIDIS; S. WILLIAMS. *Inst. Universitaire En Santé Mentale Douglas, McGill Univ.*

10:00 E18 **132.07** Regional distribution of Wnt components can explain differential effect of lithium along ventro-dorsal entorhinal-hippocampal axis. C. A. OLIVA*; R. M. URETA; N. C. INESTROSA. *Ctr. For Aging and Regeneration CARE, P. Catholic Univ. of Chile.*

11:00 E19 **132.08** Characterization of the effects of acute ketamine on cortical gamma band oscillations in both *in vitro* & *in vivo* model systems. J. M. MCNALLY*; T. KIM; R. E. STRECKER; R. BASHEER; R. W. MCCARLEY; R. E. BROWN. *VABHS, Harvard Med. Sch.*

8:00 E20 **132.09** Modulation of beta oscillations by dopamine: Novel insights from a subthalamic nucleus-external globus pallidus network model. J. DETHIER; G. DRION; A. FRANCI; R. SEPULCHRE*. *Univ. of Liege, INRIA Lille-Nord Europe.*

9:00 E21 **132.10** Cholinergic modulation of theta oscillations in intact mouse hippocampus *in vitro.* S. NAKAUCHI*; A. CHOI; I. KAGEYAMA; K. NATSUME; K. SUMIKAWA. *Univ. of California, Irvine, Kyushu Inst. of Technol.*

10:00 E22 **132.11** Muscarinic receptor sensitization and synaptic homeostasis: A computational study of activity dependent M-current activation and network potentiation. J. P. ROACH*; V. BOOTH; M. ZOCHOWSKI. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

11:00 E23 **132.12** Cholinergic modulation of persistent network activity in the mouse medial entorhinal cortex *in vitro.* V. MAGLOIRE; R. DIGBY; V. FISCHER; O. PAULSEN*. *Univ. of Cambridge.*

8:00 E24 **132.13** The role of network topology and slow temporal processes on sequential spike generation. C. G. ASSISI*. *Indian Inst. of Sci. Educ. and Res.*

9:00 E25 **132.14** Interactions between the slow afterhyperpolarization and theta oscillations in an entorhinal cortex-like network. J. B. JØRGENSEN*; J. F. STORM. *Univ. of Oslo, Univ. of Oslo,.*

10:00 E26 **132.15** Spontaneous vs evoked population bursts: History dependence, differential role of neuronal adaptation and synaptic short-term depression and finite-size effects. P. DEL GIUDICE*; G. GIGANTE; J. IACOVACCI; G. DECO. *Italian Natl. Inst. of Hlth., Italian Natl. Inst. of Hlth., Mperience, Italian Natl. Istitute of Hlth., Univ. Pompeu Fabra.*

11:00 E27 **132.16** Network-level coincidence detection in a computer simulation of primary motor cortex. A. MOHAN*; G. L. CHADDERDON; B. A. SUTER; G. M. G. SHEPHERD; W. W. LYTTON. *SUNY Downstate Med. Ctr., Northwestern Univ., SUNY Downstate Med. Ctr., Kings County Hosp.*

8:00 E28-DP2 **132.17** *In vitro* and *in silico i*nterconnected neuronal assemblies: A multidisciplinary framework for the development of a novel bi-directional brain-prosthesis. M. CHIAPPALONE*; P. BONIFAZI; M. BISIO; P. MASSOBRIO; F. DIFATO; G. L. BRESCHI; V. PASQUALE; P. NOWAK; M. GOLDIN; M. TEDESCO; F. GRILLO; S. TAVERNA. *Italian Inst. of Technol., Tel Aviv Univ., Univ. of Genova.*

9:00 E29 **132.18** The continuously oscillating septal neuron: A new type of neuron uniquely posed to control hippocampal theta rhythm generation. L. L. ANTONIO*; J. A. GARCIA-HERNANDEZ; M. G. PEREZ; R. LEÃO; J. C. FACELLI; L. V. COLOM. *The Univ. of Texas At Brownsville, The Univ. of Utah, Federal Univ. of Rio Grande do Norte.*

10:00 E30 **132.19** Chaotic rate dynamics in spiking neuronal networks. O. HARISH; D. HANSEL*. *Neurophysics and Physiol. - UMR 8119 CNRS - Univ. Paris Descartes.*

11:00 E31 **132.20** High frequency oscillations (110-160 Hz) are prominent in the extended amygdala. D. HAUFLER*; D. PARE. *Rutgers-Newark.*

8:00 E32 **132.21** Seizure-induced plasticity of fast-spiking basket cell gaba currents modulate frequency and coherence of gamma oscillation in network simulations. A. PRODDUTUR*; J. YU; V. SANTHAKUMAR. *UMDNJ.*

9:00 E33 **132.22** Characterisation of subicular neurons in awake head-fixed mice. C. BÖHM*; J. F. A. POULET; D. SCHMITZ. *Neurowissenschaftliches Forschungszentrum, Charité Universitätsmedizin Berlin, Cluster of Excellence Neurocure, Charité Universitätzmedizin Berlin, Max-Delbrück Ctr. for Mol. Med. (MDC), Bernstein Ctr. for Computat. Neuroscience, Humboldt-Universität zu Berlin, Deutsches Zentrum für Neurodegenerative Erkrankungen, Charité Universitätsmedizin Berlin.*

10:00 E34 **132.23** Analysis of molecular mechanisms underlying synchronized bursts during long-term development of rat cultured neuronal networks. D. ITO*; K. YOKOYAMA; K. GOHARA. *Hokkaido Univ., Hokkaido Univ.*

POSTER

133. Microglia: Cell Biology and Physiology

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

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

8:00 E35 **133.01** Bionformatic analysis of microglia-neural stem cell interactions: A role for wnt5a. M. E. WOODBURY*; K. INGRAHAM; R. FREILICH; S. IKEZU; T. IKEZU. *Boston Univ., UCLA.*

9:00 E36 **133.02** Do microglia play a role in myelination during development? Y. PANG*; L. TIEN; B. ZHENG; A. J. BHATT; Z. CAI; R. C. S. LIN; L. FAN. *Univ. Mississippi Med. Ctr., Sch. of Medicine, Fu Jen Catholic Univ., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr.*

10:00 E37 **133.03** Activity-dependent regulators of microglia function in the developing brain. D. P. SCHAFER*; C. HELLER; B. STEVENS. *Boston Children's Hospital/Harvard Med. Sch.*

11:00 E38 **133.04** Activation of glial cells in the cochlear nucleus during a developmental critical period in Pou4f3(+/DTR) mice. M. K. STRONG*; L. TONG; T. KAUR; S. MOTLEY; M. E. WARCHOL; E. W. RUBEL. *Univ. of Washington, Washington Univ. Sch. of Med.*

8:00 E39 **133.05** Axon initial segment associated microglia. K. L. BAALMAN*; M. I. GODOY; M. N. RASBAND. *Baylor Col. of Med.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 E40 **133.06** Microglia promote dendritic spine formation in immature barrel cortex. A. MIYAMOTO; K. ETO; J. NABEKURA*. *Natl. Inst. for Physiological Sci., Dept Physiol, Sch. Life Sci, SOKENDAI.*

10:00 E41 **133.07** Microglia are necessary for synaptically induced spreading depression. K. M. PUSIC*; A. D. PUSIC; R. P. KRAIG. *Univ. of Chicago.*

11:00 E42 **133.08** Microglia release ATP by exocytosis. S. KOIZUMI*; Y. IMURA; Y. MORIYAMA. *Univ. Yamanashi, CREST, Okayama Univ.*

8:00 E43 **133.09** ● Exploring the role of microglia in learning and memory in the healthy adult brain. M. R. ELMORE*; B. L. WEST; K. N. GREEN. *Univ. of California, Irvine, Plexxikon Inc.*

9:00 E44 **133.10** Examination of therapeutic development for chronic spinal cord injury by microglial activation. M. HAMANOUE*; T. OGATA; K. NAKAJIMA; K. TAKAMATSU. *Toho Univesity Sch. of Med., Div. of Chronic Inflammatory Diseases, Advanced Med. Res. Center, Toho Univ. Grad. Sch. of Med., Dept. of Rehabil. for the Movement Functions, Res. Institute, Natl. Rehabil. Ctr., Dept. of Bioinformatics, Fac. of Engineering, Soka Univ.*

10:00 E45 **133.11** Refinement of olfactory bulb circuitry requires complement cascade signaling. A. N. WOOD; D. M. CUMMINGS; B. STEVENS; L. BELLUSCIO*. *NIH, Harvard Med. Sch., Natl. Inst. of Hlth. / NINDS.*

11:00 E46 **133.12** Macrophage activation after traumatic brain injury: A phenotypic and functional analysis. A. KUMAR; B. STOICA; A. I. FADEN; D. J. LOANE*. *Univ. of Maryland Sch. of Med.*

8:00 E47 **133.13** Human bone marrow-derived mesenchymal stem cells suppressed classical activation of microglial cells. H. OHTAKI*; D. SONG; Z. XU; K. MIYAMOTO; J. SHIBATO; R. RAKWAL; K. DOHI; Y. HIRAIZUMI; S. SHIODA. *Showa Univ. Sch. Med.*

9:00 E48 **133.14** Transplantation of neural stem progenitor cells overexpressing galectin-1 improves functional recovery after cerebral ischemia. J. XIA*. *Xuanwu Hosp.*

10:00 E49 **133.15** Neuroprotectin D1 promotes microglial ramification. M. F. MOLINA*, ESQ; N. G. BAZAN. *LSUHSC.*

11:00 E50 **133.16** Physiological role of caspase-6 in spinal cord synaptic transmission and central sensitization via neuronal-microglial interactions. T. BERTA*; C. PARK; R. XIE; Z. XU; T. LIU; N. LU; R. JI. *Duke Univ. Med. Ctr.*

POSTER

134. Animal Models: Abeta I

Theme C: Disorders of the Nervous System

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

8:00 E51 **134.01** Association of beta-amyloid with altered mitochondrial fission proteins in peripheral blood lymphocytes in Alzheimer's disease. S. WANG*; J. SONG; M. TAN; J. JIA. *Xuan Wu Hosp. of the Capital Med. Univ.*

9:00 E52 **134.02** Crucial role of Calbindin D-$_{28k}$ in cell death and synaptic dysfunction in 5XFAD mice. S. KOOK*; S. HAN; R. PARK; H. SONG; S. BAIK; I. MOOK. *Seoul Natl. Univ.*

10:00 E53 **134.03** Effects of age and the expression of wild type human APP (hAPPwt) on synaptic plasticity in transgenic mice that express mutant Presenilin-1 (PS1(Mi46V)) associated with Alzheimer's disease. H. S. ZANJANI*; K. KINUGAWA; N. NOËL; M. DOULAZMI; M. P. MATTSON; J. MARIANI; C. ROVIRA. *Univ. UPMC-CNRS; UMR 7102, Charles Foix Hosp., NIH/NIA/.*

11:00 E54 **134.04** ● ▲ Synaptic dysfunction in the retinal ganglion cell layer of the TASTPM mouse model of Alzheimer's disease. A. HARPER*; S. A. NEALE; D. M. C. CUMMINGS; J. C. RICHARDSON; F. A. EDWARDS; T. E. SALT. *Univ. Col. London, Univ. Col. London, GlaxoSmithKline.*

8:00 F1 **134.05** Neuron number and plaque pathology in the hippocampal and parahippocampal regions of the McGill-R-Thy1-APP transgenic rat model of Alzheimer's disease. I. HEGGLAND*; A. KOBRO-FLATMOEN; I. STORKAAS; C. CUELLO; M. P. WITTER. *Norwegian Univ. of Sci. and Technol. (NTNU), McGill Univ.*

9:00 F2 **134.06** Amyloid-beta oligomers link depressive-like behavior and cognitive deficits in mice. J. LEDO*; E. AZEVEDO; J. CLARKE; F. RIBEIRO; C. FIGUEIREDO; D. FOGUEL; F. DE FELICE; S. FERREIRA. *Federal Univ. of Rio De Janeiro.*

10:00 F3 **134.07** Longitudinal characterization of CVN mouse for Alzheimer's disease using behavioral, imaging and biomarker end-points. N. E. VARTIAINEN*; T. HEIKKINEN; J. OKSMAN; J. PUOLIVÄLI; M. CERRADA-GIMENEZ; K. LEHTIMÄKI; T. AHTONIEMI; A. NURMI. *Charles River Discovery Res. Services.*

11:00 F4 **134.08** ● Spatial distribution and variance of amyloid-beta load in middle-aged transgenic Alzheimer's disease mice with both the Artic and Swedish AβPP mutations. G. H. SYVERSTAD; S. LILLEHAUG; L. N. G. NILSSON; J. G. BJAALIE; T. B. LEERGAARD*; R. TORP. *Univ. of Oslo, Inst. of Basic Med. Sci., Univ. of Oslo.*

8:00 F5 **134.09** Immunoblot examination of metabolism-related proteins in the hippocampus of aged 3xTg mice. C. M. GRIFFITH; Y. CAI; X. YAN; G. M. ROSE; P. R. PATRYLO*. *SIUC Sch. of Med., Southern Illinois Univ., Central South Univ. Xiangya Sch. of Med., Southern Illinois Univ., Southern Illinois Univ. Sch. of Med.*

9:00 F6 **134.10** The Tg2576 mouse model of Alzheimer's disease neuropathology exhibits early anatomical, behavioral and electrophysiological abnormalities. A. M. DUFFY*; K. BERMUDEZ-HERNANDEZ; M. J. SCHANER; A. MAGAGNA-POVEDA; J. J. LAFRANCOIS; H. E. SCHARFMAN. *Nathan Kline Inst., NYU Langone Med. Ctr.*

10:00 F7 **134.11** Increased excitability occurs before neuropathology or behavioral impairment in the Tg2576 mouse model of Alzheimer's disease. K. KAM; Á. M. DUFFY; J. J. LAFRANCOIS; H. E. SCHARFMAN*. *The Nathan Kline Inst. For Psych. Res., NYU Langone Med. Ctr.*

11:00 F8 **134.12** P2Y1 receptor is involved in Abeta-induced synaptic and memory loss. R. J. RODRIGUES*; L. O. PORCIUNCULA; P. M. CANAS; C. G. SILVA; J. M. MARQUES; G. M. ANDRADE; J. P. OSES; C. GACHET; R. A. CUNHA. *Ctr. For Neurosci. and Cell Biology, Univ. Coimbra, Portugal, 2INSERM U.311, Etablissement Français du Sang-Alsace, Strasbourg, France.*

8:00 F9 **134.13** Ros production induced by aβ25-35 is mediated by receptor advanced glycation end (rage) products in a rat blood-brain barrier model. S. F. ALI*; H. HERNANDEZ; S. LANTZ; M. PAULE; Q. GU; C. GONZALEZ; A. SANTAMARIA; E. CUEVAS. *Neurochemistry Lab, Div. of Neurotoxicology, Natl. Ctr. Toxicological Res/ Fda, Univ. autonoma de San Luis potosi, Inst. Nacional de Neurologia Neurocirugia.*

9:00 F10 **134.14** Decreased β-amyloid plaque load in plasmalogen-deficient female APPswe/PS1dE9 transgenic mice. S. M. FORSS-PETTER*; I. LIOU; M. REDL; Z. TOPALOVIC; J. BAUER; W. W. JUST; J. BERGER. *Med. Univ. of Vienna, Med. Univ. of Vienna, Univ. of Heidelberg.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 F11 **134.15** Caloric restriction (CR) reduces select secretase complex transcript levels in CA1 hippocampal neurons and attenuates ß-amyloid burden in the Tg2576 Alzheimer's disease mouse model. M. J. SCHAFER*; S. D. GINSBERG. *Nathan Kline Inst., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr.*

11:00 F12 **134.16** Translational profiling of cholinergic neurons in the tgCRND8 mouse model of Alzheimer's disease. P. M. MCKEEVER*; D. MILETIC; J. ROBERTSON. *Ctr. for Res. in Neurodegenerative Dis. at the Univ. of Toronto, Ctr. for Res. in Neurodegenerative Dis. at the Univ. of Toronto.*

8:00 F13 **134.17** Complement C3-deficiency accelerated Aβ plaque deposition but rescued AD-dependent behavioral changes and modulated the microglial phenotype in APP/PS1dE9 transgenic mice. Q. SHI*; B. CALDARONE; S. CHOWDHURY; S. HONG; K. MERRY; J. L. FROST; J. KENISON; K. LE; B. STEVENS; C. A. LEMERE. *Brigham and Women's Hospital, Harvard Med. Sch., Harvard NeuroDiscovery Center, Mouse NeuroBehavior Lab. Core, Boston Children's Hospital, F.M. Kirby Neurobio. Center, Harvard Med. Sch.*

9:00 F14 **134.18** Effects of exercise on spatial learning and behavior in TgCRND8 mice. J. M. WALKER*; A. K. RAMSEY; D. KLAKOTSKAIA; G. Y. SUN; A. SIMONYI; T. R. SCHACHTMAN. *Univ. of Missouri.*

10:00 F15 **134.19** ▲ Analysis of Alzheimer's disease transgenic mouse Tg2576 research I: Survey of experimental studies. A. M. FOLEY*; Z. M. AMMAR; C. S. MITCHELL; R. H. LEE. *Georgia Inst. of Technol., Georgia Inst. of Technol.*

11:00 F16 **134.20** ▲ Analysis of Alzheimer's disease transgenic mouse Tg2576 research II: Does ABeta correlate with Morris water maze escape latency? Z. AMMAR*; A. M. FOLEY; C. MITCHELL; R. H. LEE. *Georgia Inst. of Technol.*

8:00 F17 **134.21** Ingestion and trafficking of β-amyloid seeds by macrophages in mouse models of Alzheimer's disease. A. F. CINTRON*; L. C. WALKER; R. BETARBET; J. DOOYEMA; E. HEUER. *Emory Univ., Emory Univ., Univ. of Hawaii.*

9:00 F18 **134.22** Overexpression of mutant amyloid precursor protein and presenilin 1 modulates intestine immune phenotype. K. L. PUIG*; B. M. LUTZ; S. A. URQUHART; A. A. REBEL; X. ZHOU; M. SENS; C. K. COMBS. *Univ. of North Dakota, Lycoming Col., Univ. of North Dakota.*

10:00 F19 **134.23** Early synaptic plasticity impairment in the entorhinal cortex of hAPP transgenic mice. C. CRISCUOLO; N. ORIGLIA*. *CNR- Neurosci. Inst.*

11:00 F20 **134.24** The ablation of reactive astrocytes in APP23 mice induces hippocampal memory decline & increases amyloid-β load. A. M. BIRCH; A. W. J. RENZIEHAUSEN; L. KATSOURI; M. SASTRE*. *Imperial Col. London.*

8:00 F21 **134.25** Coexpression of mutant ubiquitin B (UBB^{+1}) and Hsp25 in a zebrin II-like pattern in the cerebellum of a transgenic mouse model with an AD-associated phenotype. F. VAN LEEUWEN*; R. J. G. GENTIER; L. M. VERHEIJEN; D. A. HOPKINS. *Maastricht Univ., Dalhousie Univ.*

9:00 F22 **134.26** ΔFosB epigenetically regulates gene expression and hippocampal function in a mouse model of Alzheimer's disease. B. CORBETT*; X. ZHANG; A. HAZRA; U. TOSI; D. IASCONE; M. PYFER; J. YOU; A. ASHOK; J. CHIN. *Thomas Jefferson Univ., Univ. of Pennsylvania.*

10:00 F23 **134.27** Amyloid plaque appearance is not directly associated with the activation of microglia. L. BLAZQUEZ-LLORCA*; C. K. E. JUNG; K. KEPPLER; S. STEINBACH; J. HERMS. *German Ctr. For Neurodegenerative Dis. (DZNE), Ctr. for Neuropathology and Prion Res. (ZNP), Ludwig-Maximilians-University Munich.*

11:00 F24 **134.28** ▲ The short-term and long-term effects of CXB-909 treatment on cognition and neuropathology in the 5xFAD mouse model of Alzheimer's disease. T. HALL*; S. LOWRANCE; T. REINKE; J. MATCHYNSKI; J. MATYAS; K. FINK; A. LABERDEE; T. THIBO; C. HOFFMAN; K. YELICK; T. HULSE; D. STORY; D. DUES; J. ROSSIGNOL; G. DUNBAR. *Field Neurosciences Inst. Lab. For Restorative Neurol., Program in Neurosci., Psychology Dept., Col. of Medicine, Central Michigan Univ., Field Neurosciences Inst.*

8:00 F25 **134.29** ● Reduction of β-amyloid aggregates in transgenic mice by a novel fusion protein bivalent for a General Amyloid Interaction Motif (GAIM). J. M. LEVENSON*; E. ASP; M. BECKER; R. KRISHNAN; E. MASLIAH; E. J. MUFSON; M. NADEEM; S. PEREZ; M. PROSCHITSKY; E. ROCKENSTEIN; S. SCHROETER; H. TSUBERY; K. S. GANNON. *Neurophage Pharmaceuticals, Inc., Univ. of California San Diego, Rush Univ. Med. Ctr.*

9:00 F26 **134.30** Evaluation of the efficacy of the P7C3 series of neuroprotective compounds in TgF344-AD rat model of Alzheimer's disease. J. R. VOORHEES*; H. J. DE JESÚS-CORTÉS; L. MCDANIEL; J. K. BRITT; R. M. COHEN; A. A. PIEPER. *The Univ. of Iowa, The Univ. of Texas Southwestern Med. Ctr., The Univ. of Iowa, Emory Univ., The Univ. of Iowa.*

POSTER

135. Animal Models: Abeta II

Theme C: Disorders of the Nervous System

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

8:00 F27 **135.01** ▲ Neuroprotective role of lithium in microdoses in the Alzheimer's disease. M. A. NUNES*; K. C. M. SILVA; A. L. CAETANO; S. I. G. SOUZA; T. BARALDI-TORNISIELO; N. M. SCHÖWE; T. A. VIEL; H. S. BUCK. *Faculdade De Ciências Médicas Da Santa Casa De São Paulo, Univ. of Sao Paulo.*

9:00 F28 **135.02** Sustained hippocampal and cortical overexpression of PGC-1α improves spatial memory in APP23 mice. L. KATSOURI*; Y. LIM; N. D. MAZARAKIS; M. SASTRE. *Imperial Col.*

10:00 F29 **135.03** Abnormal interaction of VDAc1 with amyloid beta and phosphorylated tau causes mitochondrial dysfunction in Alzheimer's disease. P. H. REDDY*; M. MANCZAK. *Oregon Hlth. Sci. Univ., Oregon Hlth. and Sci. Univ.*

11:00 F30 **135.04** Altered synapses in a *Drosophila* model of Alzheimer's disease. S. D. MHATRE*; D. R. MARENDA; A. J. SAUNDERS. *Drexel Univ.*

8:00 F31 **135.05** Accumulation of Aß oligomers and prion and impaied signal transduction in lipid rafts. T. KAWARABAYASHI*; T. NAKATA; Y. WAKASAYA; H. ONO; E. MATSUBARA; M. SHOJI. *Hirosaki Univ. Grad. Sch. of Med.*

9:00 F32 **135.06** A novel target protects against patterned neurodegeneration in a model of Alzheimer's disease. S. V. IYER*; L. L. SCOTT; J. SAHN; G. ZUNIGA; J. PIERCE-SHIMOMURA. *Univ. of Texas at Austin, Univ. of Texas at Austin.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 F33 **135.07** Aging deficits in axonal transport are exacerbated by abeta plaques: An memri study. A. GONZALES*; J. J. GALLAGHER; X. ZHANG; R. E. JACOBS; E. L. BEARER. *The Univ. of New Mexico, California Institue of Technol., The Univ. of New Mexico Sch. of Med.*

11:00 F34 **135.08** Study of APP protective pathways in *Drosophila.* M. CASSAR*; J. S. WENTZELL; B. J. BOLKAN; K. CARMINE-SIMMEN; D. KRETZSCHMAR. *OHSU.*

8:00 F35 **135.09** Progressive astroglial activation and decreased heat shock proteins expression in aging APP transgenic mice. R. JAGADAPILLAI; A. M. ROBERTS; R. VAISHNAV; R. P. FRIEDLAND; L. R. SACHLEBEN, Jr; E. GOZAL*. *Univ. Louisville, Univ. Louisville, Univ. Louisville, Univ. Louisville, Univ. Louisville.*

9:00 F36 **135.10** Brain energy metabolism and hippocampal impairment on an animal model of Alzheimer disease. E. MUGANTSEVA*; V. BULGAKOVA; M. MOLCHANOV; S. PASKEVICH; M. TIMCHENKO. *Inst. of Theoretical and Exptl. Biophysics RAS, Moscow State Univ.*

10:00 F37 **135.11** Attenuation of T-cell mediated inflammatory response in a transgenic animal model of Alzheimer's disease by an herbal drug Centella asiatica. M. AHUJA*; M. BUABEID; M. LOHANI; D. BHATTACHARYA; S. BHATTACHARYA; R. AMIN; V. SUPPIRAMANIAM; M. DHANASEKARAN. *Auburn Univ., Auburn Univ., Auburn Univ.*

11:00 F38 **135.12** Genes, proteins and functions are early altered in an amyloid precursor protein overproducer Alzheimer's disease animal model. J. DURAN*; M. ORTEGA; K. CORREA; L. L. ANTONIO; S. HERNANDEZ; M. T. CASTANEDA; E. LOPEZ; M. DE LEON; L. F. PACHECO; E. GARRIDO; L. V. COLOM. *UTB, Univ. of Texas Brownsville.*

8:00 F39 **135.13** Role of mGluR5 as a mediator of the mechanisms of selective neuronal vulnerability in transgenic models of Lewy Body Disease. C. R. OVERK*; D. L. PRICE; A. ADAME; M. MANTE; G. SHAKKED; A. CARTIER; E. ROCKENSTEIN; E. MASLIAH. *UCSD, Neuropore Therapies, Inc.*

POSTER

136. Abnormal Pathological Proteins Excluding Tau and Abeta

Theme C: Disorders of the Nervous System

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

8:00 F40 **136.01** Markers of brain insulin resistance in Alzheimer's disease and other tauopathies. S. E. ARNOLD*; M. YARCHOAN; K. TALBOT; J. B. TOLEDO; Z. ARVANITAKIS; J. Q. TROJANOWSKI; L. HAN; H. KAZI. *Univ. Pennsylvania, Univ. of Pennsyvlania, Rush Alzheimer's Dis. Ctr.*

9:00 F41 **136.02** Differential contribution of soluble α-synuclein oligomers in Alzheimer's disease. S. E. LESNE*; M. LARSON; S. GREIMEL; F. AMAR; M. A. SHERMAN; J. A. SCHNEIDER; R. KAYED; D. A. BENNETT. *Univ. of Minnesota, Rush Univ. Med. Ctr., Univ. of Texas Med. Br.*

10:00 F42 **136.03** Effect of extracellular superoxide dismutase expression in Alzheimer's disease early progression. S. JUN*; N. SUMIEN; L. DORY; J. W. SIMPKINS. *West Virginia Univ. Hlth. Sci. Ctr., Inst. for aging and Alzheimer's Dis. research, Univ. of North Texas Hlth. Sci. Ctr.*

11:00 F43 **136.04** Proteasomes interact with intracellular membrane organelles for their movement in axons. M. G. OTERO*; M. ALLOATTI; L. E. CROMBERG; V. POZO DEVOTO; T. L. FALZONE. *Inst. de Biologia Celular y Neurociencia.*

8:00 F44 **136.05** Progression of memory deficits and neuronal degeneration in a mouse model that conditionally over-express TDP-43 in the forebrain. H. DONG; J. MONTALVO-ORTIZ; J. KEEGAN; A. LABOY; C. GALLARDO; S. WANG; T. RUJAPAKSHA; R. VASSAR; J. G. CSERNANSKY*. *Northwestern Univ., Northwestern Univ.*

9:00 F45 **136.06** ● Endosomal-lysosomal regulation in the precuneus and hippocampus in mild cognitive impairment and Alzheimer's disease. E. J. MUFSON*; S. E. PEREZ; M. NADEEM; S. D. GINSBERG; M. D. IKONOMOVIC. *Rush Univ. Med. Ctr., Rush Med. Ctr., Nathan Kline Institute/New York Univ. Langone Med. Ctr., Univ. of Pittsburgh.*

10:00 F46 **136.07** ATM deficiency and the pathogenesis of AD. J. CHEN*; J. LI; Y. CHEN; K. HERRUP. *Rutgers Univ., Hong Kong Univ. of Sci. and Technol.*

11:00 G1 **136.08** Molecular mechanisms involved in Kidins220/ARMS accumulation in Alzheimer's disease. A. GAMIR MORRALLA*; C. LÓPEZ MENÉNDEZ; J. JURADO ARJONA; A. M. HIGUERO; M. R. CAMPANERO; I. FERRER; F. HERNÁNDEZ; J. AVILA; M. DÍAZ GUERRA; T. IGLESIAS. *Inst. de Investigaciones Biomédicas Alberto Sols (CSIC-UAM), CIBERNED, Ctr. Biol Mol Severo Ochoa CSIC-UAM, Inst. de Neuropatología, IDIBELL-Hospital Universitari de Bellvitge, Univ. de Barcelona.*

8:00 G2 **136.09** Calpain expression is altered in areas of the brain implicated in Alzheimer's disease. C. B. ROGERS*; S. GHOSHAL; P. T. NELSON; J. W. GEDDES. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky.*

9:00 G3 **136.10** Does accumulation of extracellular protein aggregates reflect impaired autophagy? Studies in aged mouse and human Alzheimer's hippocampus. Q. TANG*; A. HABAS; P. DEMEDIUK; L. L. DUGAN. *Univ. of California San Diego.*

10:00 G4 **136.11** Deficiency in mural vascular cells coincides with blood-brain barrier disruption in Alzheimer's disease. J. SENGILLO*; E. A. WINKLER; C. T. WALKER; J. S. SULLIVAN; M. JOHNSON; B. V. ZLOKOVIC. *Zilkha Neurogenetic Inst., Univ. of Rochester Med. Ctr., Univ. of Rochester Med. Ctr.*

11:00 G5 **136.12** SorLA and sortilin regulate axonal transport of NGF and BDNF in the brain. A. BENEDICK; J. RYU; K. GIEHL; T. E. WILLNOW; A. NYKJAER; S. YOON*. *Ohio State Univ. Med. Sch., Max-Delbrueck-Center for Mol. Med., Univ. of Aarhus.*

8:00 G6 **136.13** Identification and characterization of proteins binding to the neuronal-enriched adaptor protein FE65. K. LAU*; V. CHOW; H. CHEUNG; H. CHAN. *The Chinese Univ. of Hong Kong.*

9:00 G7 **136.14** The role of microglia activation in synapse loss and short-term memory deficits in oculoleptomeningeal amyloidosis related to transthyretin. E. AZEVEDO*; J. LEDO; G. BARBOSA; M. SOBRINHO; L. DINIZ; L. ROMAO; F. PALHANO; F. LIMA; S. FERREIRA; D. FOGUEL. *UFRJ.*

10:00 G8 **136.15** Cytotoxicity of Alzheimer disease-associated aberrant ubiquitin is determined by the activity of the ubiquitin-proteasome system. R. J. BRAUN*; C. SOMMER; R. J. G. GENTIER; F. W. VAN LEEUWEN; F. MADEO. *Univ. Bayreuth, Univ. Graz, Univ. Maastricht, Univ. Maastricht.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 G9 **136.16** The potential role of Nrf2-ARE signal pathway in neuroprotection. J. SUN*; S. JUN; J. W. SIMPKINS. *Univ. of West Virginia Robert C. Byrd Hlth. Sci. Ctr.*

POSTER

137. Parkinson's Disease: Models of Degeneration

Theme C: Disorders of the Nervous System

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

8:00 G10 **137.01** A novel postnatal neurodevelopmental scale for evaluation of normal and transgenic common marmoset monkeys. K. BRAUN; N. SCHULTZ-DARKEN; M. SCHNEIDER; M. E. EMBORG*. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

9:00 G11 **137.02** Morphological evaluation of a monkey model of cardiac dysautonomia. V. JOERS*; K. DILLEY; S. RAHMAN; H. SIMMONS; M. EMBORG. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

10:00 G12 **137.03** Gene therapy using glucocerebrosidase prevents alpha synuclein-induced neuron loss and reduce alpha synuclein accumulation. E. N. MANGANO*; G. A. SMITH; M. A. HAYES; J. A. BEAGAN; S. C. IZEN; E. J. PEREZ-TORRES; P. J. HALLETT; O. ISACSON. *McLean Hosp. /Harvard Med. Sch.*

11:00 G13 **137.04** Role of microRNA-155 in the alpha-synuclein induced inflammatory response in a model of Parkinson disease. A. D. THOME*; A. S. HARMS; D. G. STANDAERT. *Univ. of Alabama At Birmingham.*

8:00 G14 **137.05** The creation trial of the new Lewy body disease model considered aging. M. MINAMIYAMA*; N. LONG; Y. NOSE; N. MOTOYAMA; M. SHAMOTO-NAGAI; K. IBARAKI; T. HAYAKAWA; H. YAMADA; M. NAOI; W. MARUYAMA. *Natl. Ctr. For Geriatrics and Gerontology, Aichi Gakuin Univ.*

9:00 G15 **137.06** MHCII is required for alpha-synuclein induced activation of microglia, CD4 T cell proliferation and dopaminergic neurodegeneration. A. S. HARMS*; S. CAO; A. L. ROWSE; A. D. THOME; X. LI; L. R. MANGIERI; R. Q. CRON; J. J. SHACKA; C. RAMAN; D. G. STANDAERT. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Children's Hosp., Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham.*

10:00 G16 **137.07** Prothrombin kringle-2 induces degeneration of the nigrostriatal dopaminergic pathway *in vivo.* E. LEEM; M. JEON; U. JUNG; S. KIM*. *Kyungpook Natl. Univ., Kyungpook Natl. Univ., Kyungpook Natl. Univ., Kyungpook Natl. Univ.*

11:00 G17 **137.08** Viable Gaucher's disease model of medaka fish completely deficienct in glucocerebrosidase activity developed alpha-synuclein aggregation in the brain. N. UEMURA*; T. FUJIWARA-ISHIKAWA; M. KINOSHITA; M. KOIKE; H. MATSUI; H. YAMAKADO; K. UEMURA; Y. UCHIYAMA; T. TODO; S. TAKEDA; R. TAKAHASHI. *Dept. of Neurology, Kyoto Univ. Grad. Sch. of Med., Grad. Sch. of Medicine, Osaka Univ., Grad. Sch. of Agriculture, Kyoto Univ., Juntendo Univ. Grad. Sch. of Med., Grad. Sch. of Med. Univ. of Miyazaki, Grad. Sch. of Medicine, Kyoto Univ.*

8:00 G18 **137.09** Chronic L-DOPA and BL-1023 increase tyrosine hydroxylase expression by GABAergic neurons in the substantia nigra of MPTP-treated mice. K. ANDERSON*; A. M. SZLACHETKA; R. A. WILSHUSEN; R. MOSLEY. *Univ. of Nebraska Med. Ctr.*

9:00 G19 **137.10** Upregulation of the neurite growth inhibitory molecules Nogo-A and CSPG in a rat model of 6-OHDA-induced neurodegeneration. D. M. LANG*; H. TOMES; V. A. RUSSELL. *Univ. Cape Town.*

10:00 G20 **137.11** Exogenous α-synuclein fibrils induce oxidative stress and inflammation in the rotenone model of Parkinson's disease. V. TAPIAS*; K. C. LUK; L. VOLPICELLI-DALEY; V. M. LEE; J. T. GREENAMYRE. *Univ. of Pittsburgh Med. Ctr., Univ. of Pennsylvania Perelman Sch. of Med.*

11:00 G21 **137.12** Expression of NMDARs and PSD-95 interactions in the plasticity mechanisms involved in the onset and recovery of a Parkinson's disease model. M. B. CARVALHO*; A. D. N. FERNADES; A. C. F. MELIBEU; C. A. SERFATY; P. C. C. LOPES*. *Univ. Federal Fluminense.*

8:00 G22 **137.13** A novel method for non-viral plasmid re-programming of adult fibroblasts into dopamine neuronal cells for neural repair. G. LIU*. *Carleton Univ.*

9:00 G23 **137.14** Targeted over-expression with AAV-mediated human α-synuclein in a rat model of Parkinson's disease - validation of novel fine motor functional effects, as well as neurochemical and neuropathological changes over time. V. JANKOVIC; U. HERZBERG; R. O. PUSSINEN*; M. CERRADA-GIMENEZ; N. VARTIAINEN; P. SWEENEY; A. NURMI; T. HUHTALA. *Celgene Cell. Therapies, Charles River Discovery Res. Services.*

10:00 G24 **137.15** Novel DLB rat model based on AAV vector mediated expression of α-synuclein localized to the cerebral cortices, display significant neuronal degeneration and pathology. P. ALDRIN; S. HOLMQVIST; M. DAVIDSSON; A. BJORKLUND*; J. LI; T. BJORKLUND. *Lund Univ., Lund Univ., Wallenberg Neurosci Ctr.*

11:00 G25 **137.16** Investigating axonal degeneration in the early stages of a striatal 6-hydroxydopamine lesion model of Parkinson's disease. A. KNEYNSBERG*; T. J. COLLIER; F. P. MANFREDSSON; N. M. KANAAN. *Michigan State Univ., Michigan State Univ.*

8:00 G26 **137.17** ● Question revisited: Dopamine depletion does not alter proliferation, but survival of neural precursor cells in the subventriucalar zone and hippocampus. J. SCHLACHETZKI*; T. GRIMM; B. WINNER; B. FERGER; J. WINKLER. *Univ. Hosp. Erlangen, FAU Erlangen-Nürnberg, Boehringer Ingelheim Pharma GmbH & Co. KG.*

9:00 G27 **137.18** Aggregate formation in dopaminergic neurons of *Drosophila* as a function of proteasome activity. T. SCHMIDT-GLENEWINKEL*; E. LEMPERT; M. JANSEN; K. PERLAZA. *Hunter Col. of CUNY.*

10:00 G28 **137.19** ▲ Manganese inhalation as a Parkinson disease model. J. SANCHEZ*; A. GUTIERREZ-VALDEZ; J. ORDOÑEZ-LIBRADO; V. ANAYA-MARTINEZ; R. GARCIA-RUIZ; E. MONTIEL-FLORES; J. ESPINOSA-VILLANUEVA; P. ALEY-MEDINA; M. AVILA-COSTA. *Fes-Iztacala, UNAM, FES-Iztacala.*

11:00 G29 **137.20** Development of new scAAV9 variant to transduce specific disease-related brain areas in newborn rats. N. DUTHEIL; M. BOURDENX; S. DOVERO*; C. JIMENEZ; L. CHANSEL-DEBORDEAUX; D. DALKARA; E. BEZARD; B. DEHAY. *Inst. of Neurodegenerative Dis., Inst. de la Vision, UPMC Univ. Paris 06.*

8:00 G30 **137.21** Age-dependent alterations in the distribution of neurons expressing alpha-synuclein in macaque monkeys. K. KIMURA*; K. INOUE; F. TANAKA; M. TAKADA. *Kyoto Univ., Yokohama City Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 G31 **137.22** The role of iron in the pathogenesis of parkinsonism in the *Drosophila* model. Z. ZHU*; Z. QIAN; W. YUNG; Y. KE. *CUHK, FuDan university, The Chinese Univ. of Hong Kong, The Chinese Univ. of Hong Kong.*

10:00 G32 **137.23** Expression of LRRK2 interrupts the sleep in flies. Z. PEI*; X. SUN; L. CHEN; H. GUO. *The First Affiliated Hospital, Sun Yat-Sen Univ.*

POSTER

138. Parkinson's Disease: Animal Therapies

Theme C: Disorders of the Nervous System

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

8:00 G33 **138.01** Caspase 1 inhibition in an alpha synuclein model of Parkinson's disease. J. H. KORDOWER*; V. CHAUHAN; R. TRIPATHI; G. PETSKO. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr., Brandeis Univ.*

9:00 G34 **138.02** Activation of dopamine D3 receptors combined with the BDNF gene transfection to the dopamine cells of the pars compacta recovers the striatal innervation and motor behavior in the rat model of Parkinson´s disease. L. F. RAZGADO*; A. SIERRA; V. ANAYA; I. JIMENEZ; D. MARTINEZ; J. ACEVES. *CINVESTAV, CINVESTAV, CINVESTAV.*

10:00 G35 **138.03** The opioid glycopeptide MMP-2200 blocks dopamine receptor 2-induced dyskinesia in a preclinical model. T. FALK*; A. J. FLORES; L. Y. SO; F. PORRECA; R. POLT; S. J. SHERMAN. *Univ. Arizona Col. Med., Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

11:00 G36 **138.04** ● Carboxyfullerene rescue of MPTP-induced nigrostriatal injury in nonhuman primates. L. L. DUGAN; L. TIAN; K. QUICK; J. HARDT; M. KARIMI; C. A. BROWN; S. LOFTIN; H. FLORES; S. MOERLEIN; J. POLICH; J. W. MINK; J. S. PERLMUTTER*. *Univ. of California San Diego, Washington Univ. Sch. Med., Washington Univ. Sch. Med., Univ. of California San Diego, Univ. of Rochester, Washington Univ. Sch. Med.*

8:00 G37 **138.05** ● Effects of cervical epidural stimulation on improving forelimb fine motor function of chemically-induced Parkinson-like symptoms in rats. H. ZHONG*; Y. MINEGISHI; S. ZDUNOWSKI; R. ROY; C. ZHU; V. LEON; G. GARCIA-ALIAS; Y. GERASIMENKO; M. CHESSELET; V. EDGERTON. *UCLA, UCLA, UCLA, UCLA.*

9:00 G38 **138.06** Gastrodia elata extract attenuates the L-DOPA-induced dyskinesia in Parkinson's disease mouse model. O. KANG*; A. DOO; S. KIM; J. PARK; H. LEE; H. PARK. *Kyung Hee Univ.*

10:00 G39 **138.07** Anti-α-synuclein antibodies provide neuroprotection and reduce behavioral deficits in a rat AAV9-α-synuclein model of Parkinson's disease. M. SHADUZZAMAN; K. NASH; C. HUDSON; B. GRIMMIG; X. LIN; G. BAI; H. LIU; C. CAO; P. C. BICKFORD*. *Univ. of South Florida, Univ. of South Florida, USF Hlth. Byrd Alzheimers Inst., James A. Haley Veterans Hosp., USF Col. of Pharm., Univ. of South Florida.*

11:00 G40 **138.08** *In vivo* 7T MRI brain atlas of the non-human primate: Thalamus and brainstem. L. M. ZITELLA*; J. XIAO; B. A. TEPLITZKY; Y. DUCHIN; E. YACOUB; N. HAREL; M. D. JOHNSON. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

8:00 G41 **138.09** The contribution of α2-adrenoceptors to the behavioral effects of L-DOPA in a rodent model of Parkinson's disease. C. Y. OSTOCK*; J. HALLMARK; N. PALUMBO; C. BISHOP. *Binghamton Univ., Binghamton Univ.*

9:00 G42 **138.10** ● The direct mitochondrial complex I protective effects of a synthetic peptide derived from proGDNF. L. H. BRADLEY*; J. TURCHAN-CHOLEWO; J. D. PANDYA; M. J. STENSLIK; G. BING; W. A. CASS; P. G. SULLIVAN; D. M. GASH; G. A. GERHARDT. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky.*

10:00 G43 **138.11** Use of dopaminergic neurons derived from rat induced pluripotent stem cells in a rat model of Parkinson's disease. G. P. SHALL*; X. LEVEQUE; R. WELCHKO; K. FINK; M. LU; J. ROSSIGNOL; G. DUNBAR. *Field Neurosciences Inst. Lab. For Restorative Neurology, Neurosci., Program in Neurosci., Dept. of Psychology, Central Michigan Univ., Field Neurosciences Inst.*

11:00 G44 **138.12** ● Anti-Parkinson and anti-L-Dopa induced dyskinesia efficacy of HE3286 in a MPTP non-human primate model. I. H. PHILIPPENS*, SR; G. BAARENDS; F. BATENBURG; C. AHLEM. *Biomed. Primate Res. Ctr. (BPRC), Harbor Therapeut. Inc.*

8:00 G45 **138.13** ● Intranasal delivery of dopamine neuron stimulating peptide-11 (DNSP-11) in Fischer 344 rats. M. J. STENSLIK*; J. TURCHAN-CHOLEWO; J. W. H. SONNE; L. H. BRADLEY; F. P. POMERLEAU; W. A. CASS; G. A. GERHARDT; D. M. GASH. *Univ. of Kentucky, Univ. of Kentucky.*

9:00 G46 **138.14** ● Rapamycin attenuates motor deficits in neuronal A53T human alpha-synuclein transgenic mice and reduces 4-hydroxynonenal modified proteins. X. BAI*; M. C. WEY; E. FERNANDEZ; R. STRONG. *Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Geriatric Research, Educ. and Clin. Center, South Texas Veterans Hlth. Care Network.*

10:00 G47 **138.15** ● MM201, a novel orally-active hepatocyte growth factor mimetic with a clinical potential for the treatment of Parkinson's like symptoms in the 6-OHDA animal model. L. H. KAWAS; J. W. WRIGHT; P. H. HARRIS; D. P. SONDHEIM; H. A. QAYOUM; K. CZAJA; J. W. HARDING*, Jr. *Washington State Univ., M3 Biotech. Inc., Washington Sate Univ., Washington Sate Univ., Wasington State Univ.*

11:00 G48 **138.16** Utilization of a novel adenovirus for differentiation of mesenchymal stem cells into dopaminergic neurons. R. WELCHKO*; T. HULSE; G. SHALL; S. PARKER; W. HUO; S. DECKER; M. MENOSKY; D. DUES; X. LEVEQUE; M. LU; J. ROSSIGNOL; G. L. DUNBAR. *Field Neurosciences Inst. Lab. For Restorative Neurol., Central Michigan Univ., Central Michigan Univ., Central Michigan Univ., Field Neurosciences Inst.*

8:00 G49 **138.17** Upregulation of transcription factors and target genes involved in the differentiation process of mesenchymal stem cells into dopaminergic neuron-like cells. W. HUO; R. WELCHKO; T. HULSE; S. PARKER; D. DUES; D. DAVID; X. LEVEQUE; J. ROSSIGNOL*; M. LU; G. DUNBAR. *Central Michigan Univ., Program in Neurosci., Dept. of Psychology, Field Neurosciences Inst. Lab. For Restorative Neurol., Field Neurosciences Inst.*

9:00 G50 **138.18** ● Small molecule ghrelin agonist HM01 alleviates gastrointestinal dysfunctions in a 6-OHDA rat model of Parkinson's disease. H. KARASAWA; C. PIETRA; C. GIULIANO; S. GARCIA-RUBIO; S. YAKABI; Y. TACHÉ; L. WANG*. *UCLA, Helsinn SA Lugano, Helsinn Therapeut. (U.S.), Inc.*

10:00 G51 **138.19** ▲ The chronic administration of the dopamine D3 receptor agonist 7-OH-DPAT combined with the BDNF transfection in substantia nigra recovers the striatal innervation and the nigral dopamine cells in the rat model of Parkinson's disease. P. E. REYNA*; V. ANAYA-MARTÍNEZ; A. SIERRA; D. MARTÍNEZ-FONG; I. JIMÉNEZ; B. FLORÁN; J. ACEVES. *CINVESTAV, UNAM.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 G52 **138.20** Chromospheres: A new source for cell replacement therapy in Parkinson´s disease. A. BORONAT-GARCÍA*; M. PALOMERO-RIVERO; D. MILLÁN-ALDACO; P. MONTOYA-GUERRERO; A. L. GÓMEZ-PAZ; M. GUERRA-CRESPO; A. HERNÁNDEZ-CRUZ; R. DRUCKER-COLÍN. *Inst. de Fisiologia Celular, Inst. de Fisiología Celular.*

8:00 G53 **138.21** AG-0029: a D2 receptor agonist and H3 receptor antagonist for the treatment of motor and cognitive symptoms of Parkinson's disease. A. C. MCCREARY; U. DIJKMAN; I. VEINBERGS*; A. HEERES; M. DRÖGE; M. S. HEINS; S. HOGG. *Brains On-Line BV, Brains On-Line, Syncom, ABL, Angita Pharmaceuticals B.V.*

9:00 G54 **138.22** Integration and maturation of two human Ventral Mesencephalic clones suitable for *in vivo* studies in the long-term overexpressing BclXL. T. RAMOS-MORENO; M. P. PEREIRA; B. MORENO; B. GARCIA; A. MARTINEZ-SERRANO*. *Ctr. de Biología Mol. Severo Ochoa, Ctr. Mol. Biol. - S.O.*

10:00 G55 **138.23** The impact of daily USP methylene blue on behavioral symptoms and dopaminergic cell loss in a rodent model of Parkinson's disease. E. S. SMITH*; T. SCHALLERT; F. GONZALEZ-LIMA; H. J. LEE. *The Univ. of Texas At Austin.*

11:00 G56 **138.24** Exacerbation of the antidyskinetic effect of dopamine receptor blockade in a rat model of Parkinson's disease subjected to fetal cell transplantation. M. CARTA*; E. SHIN; C. LISCI; E. TRONCI; C. FIDALGO; R. STANCAMPIANO; A. BJÖRKLUND. *Univ. of Cagliari, Univ. of Lund.*

8:00 G57 **138.25** Neural stem cell transplantation improves motor and cognitive function via multiple mechanisms in a transgenic model of Parkinson's disease. N. R. GOLDBERG*; J. A. CAESAR; G. FINOGENOV; J. NERHUS; E. MASLIAH; M. M. BLURTON-JONES. *Univ. of California Irvine, Univ. of California, Irvine, UCSD, Univ. of California, Irvine.*

9:00 G58 **138.26** Neurogenic properties of embryonic bodies in adult rat brain. O. COLLAZO-NAVARRETE*; L. COVARRUBIAS-ROBLES; R. DRUCKER-COLIN; G. MAYA-ESPINOSA; D. MILLAN-ALDACO; M. PALOMARES-RIVERO; M. GUERRA-CRESPO. *UNIVERSIDAD NACIONAL AUNTONOMA DE MÉXICO.*

POSTER

139. Repeat Expansion Diseases: Non-Huntington's Disease

Theme C: Disorders of the Nervous System

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

8:00 G59 **139.01** Deficits in brain-derived neurotrophic factor may underlie motor dysfunction in spinal bulbar muscular atrophy. K. HALIEVSKI*; C. L. HENLEY; M. FU; M. KATSUNO; H. ADACHI; G. SOBUE; S. M. BREEDLOVE; C. L. JORDAN. *Michigan State Univ., Nagoya Univ. Grad. Sch. of Med.*

9:00 G60 **139.02** Impact of endogenous tau in a mouse model of myotonic dystrophy. F. FERNANDEZ-GOMEZ; S. EDDARKAOUI; S. CARRIER; H. OBRIOT; A. HUGUET; F. JUMEAU; C. CARPENTIER; A. LABUDECK; L. ARANDEL; M. DERISBOURG; C. LAURENT; M. HAMDANE; D. FURLING; D. BLUM; M. GOMES-PEREIRA; M. CAILLET-BOUDIN; L. BUEE*; G. GOURDON; N. SERGEANT. *Inserm, Inserm, UPMC Univ. Paris 6, Um76 / Inserm, U974 / CNRS, Umr7215.*

10:00 H1 **139.03** Mesencephalic astrocyte-derived neurotrophic factor is protective in SCA17 knock-in (KI) mice. S. YANG*; X. LI; S. LI. *Emory Univ.*

11:00 H2 **139.04** Perturbation of mGluR signaling in SCA3 model mice expressing mutant ataxin-3 and the rescue by intravascular administration of AAV9. A. KONNO*; A. N. SHUVAEV; S. YANAGI; H. HIRAI. *Gunma Univ., Tokyo Univ. of Pharm. and Life Sci.*

8:00 H3 **139.05** RNA-induced toxicity from the C9ORF72 ALS/FTD repeat expansion is mitigated by antisense intervention. C. J. DONNELLY*; A. R. HAEUSLER; S. VIDENSKY; B. HOOVER; E. DALEY; J. T. PHAM; P. ZHANG; E. M. POTH; F. RIGO; C. F. BENNETT; J. WANG; B. J. TRAYNOR; S. BLACKSHAW; R. SATTLER; J. D. ROTHSTEIN. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Isis Pharmaceuticals, NIH.*

9:00 H4 **139.06** Genistein, a natural product derived from soybeans, ameliorates polyglutamine-mediated motor neuron disease. H. ADACHI*; Q. QIANG; Z. HUANG; Y. JIANG; M. KATSUNO; N. KONDO; Y. MIYAZAKI; M. IIDA; G. TOHNAI; H. NAKATSUJI; G. SOBUE. *Nagoya Univ. Grad Sch. of Med.*

10:00 H5 **139.07** A novel model for polyglutamine pathogenesis using the avian embryo. N. SATO*; H. NAKAYAMA; M. SHIBATA. *Niigata Univ. Grad Sch. Med. Den.*

11:00 H6 **139.08** RNA-binding proteins of C9orf72 RNA and their role in the pathogenesis of FTD and ALS. S. MIZIELINSKA*; T. LASHLEY; F. NORONA; C. RIDLER; P. FRATTA; J. DENGJEL; E. BURATTI; A. M. ISAACS. *UCL, UCL Inst. of Neurol., UCL Inst. of Neurol., Freiburg Inst. for Advanced Studies (FRIAS), Intl. Ctr. for Genet. Engin. and Biotech. (ICGEB).*

8:00 H7 **139.09** Understanding the role of androgen receptor acetylation in mouse models of SBMA. H. MONTIE; D. E. MERRY*. *Thomas Jefferson Univ., Thomas Jefferson Univ.*

9:00 H8 **139.10** Characterization of the ALS/FTD-linked C9ORF72 protein in neuronal cells. X. WEN*; W. TAN; P. PASINELLI; D. TROTTI. *Farber Inst. For Neurosciences, Thomas Jefferson Univ.*

10:00 H9 **139.11** The role of serine 16 phosphorylation and the N/C interaction of the androgen receptor in SBMA. L. J. COOPER*; C. ORR1; B. PASCHAL; D. MERRY. *Thomas Jefferson Univ., Univ. of Virginia Hlth. Syst.*

11:00 H10 **139.12** Ultrastructural pathology at the neuromuscular junction in a myogenic mouse model of spinal bulbar muscular atrophy. J. E. POORT*; M. B. RHEUBEN; Y. XU; S. M. BREEDLOVE; C. L. JORDAN. *Michigan State Univ., Michigan State Univ., Michigan State Univ.*

8:00 H11 **139.13** Full-length polyglutamine-expanded androgen receptor is incorporated into inclusions followed by proteasome-mediated proteolysis in SBMA. E. HEINE*; T. BERGER; C. ORR; E. MEYERTHOLEN; D. MERRY. *Thomas Jefferson Univ., Thomas Jefferson Univ.*

POSTER

140. Motor Neuron Disease: Animal Models

Theme C: Disorders of the Nervous System

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

8:00 H12 **140.01** Time course of hippocampal GABAergic interneurons and spatial learning in SOD1 (G93A) mice. E. QUARTA*; R. BRAVI; M. FRANCHINI; E. J. COHEN; R. MARIOTTI; M. BENTIVOGLIO; D. MINCIACCHI. *Univ. of Florence, Univ. of Verona.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 H13 **140.02** Investigating the pathophysiology of Amyotrophic Lateral Sclerosis using human induced pluripotent stem cell technology. A. DEVLIN; K. BURR; S. BOROOAH; L. VALLIER; C. SHAW; S. CHANDRAN; G. B. MILES*. *Univ. St Andrews, Univ. of Edinburgh, Univ. of Cambridge, King's Col. London.*

10:00 H14 **140.03** Metabolic therapy with arginine alpha-ketoglutarate extends survival in Amyotrophic Lateral Sclerosis (ALS) mouse model. C. ARI*; A. M. POFF; H. E. HELD; C. S. LANDON; C. R. GOLDHAGEN; N. MAVROMATES; D. P. D' AGOSTINO. *Hyperbaric Biomed. Res. Laboratory, Univ. of South Florida.*

11:00 H15 **140.04** Identification of Atg1 as a modifier gene of TDP-43 toxicity in the *Drosophila* model. K. MATSUKAWA*; R. IHARA; T. CHIHARA; M. MIURA; T. WAKABAYASHI; T. HASHIMOTO; T. IWATSUBO. *The Univ. of Tokyo.*

8:00 H16 **140.05** Nuclear imaging characterization of G93A-SOD1 mouse model of amyotrophic lateral sclerosis. K. LEHTIMÄKI; S. HÄTINEN*; T. HUHTALA; T. AHTONIEMI; A. NURMI. *Charles River Discovery Res. Services.*

9:00 H17 **140.06** Evaluation of fine motor skill impairment in the G93A-SOD1 transgenic mouse model of amyotrophic lateral sclerosis. P. SWEENEY*; T. HEIKKINEN; J. OKSMAN; T. AHTONIEMI; A. NURMI. *Charles River DRS Finland.*

10:00 H18 **140.07** Analysis of ALS transgenic mouse research I: 1,622 papers and counting.. R. H. LEE*; R. B. KIM; M. T. HALICEK; K. R. TILVA; C. S. MITCHELL. *Georgia Tech., Georgia Inst. of Technol., Georgia Inst. of Technol.*

11:00 H19 **140.08** Molecular phenotyping of corticospinal projection neurons during ALS disease progression. E. F. SCHMIDT*; S. B. PICKETT; C. L. WARRINER; C. E. SFERRAZZA; N. HEINTZ. *Rockefeller Univ., Rockefeller Univ.*

8:00 H20 **140.09** Analysis of ALS transgenic mouse research II: Preliminary meta-analyses of G93A SOD1 mouse experimental studies. C. S. MITCHELL*; M. T. HALICEK; R. B. KIM; K. R. TILVA; R. H. LEE. *Georgia Inst. of Technol., Georgia Inst. of Technol., Emory Univ.*

9:00 H21 **140.10** Indications of motor neuron toxicity triggered by Schwann cells in the *in vitro* mouse model of Amyotrophic Lateral Sclerosis. C. J. ALVES*; A. B. GUIMARÃES; D. G. ISHIBARU; P. C. MARTHO; J. R. MAXIMINO; G. CHADI. *Univ. of Sao Paulo - Sch. of Med., Sch. of Med. of Sao Paulo Univ.*

10:00 H22 **140.11** Electrical and morphological properties of spinal motoneurons are differentially affected depending upon their functional sub-type in neonate G93A SOD1 mice. F. LEROY; B. LAMOTTE D'INCAMPS; D. ZYTNICKI*. *Lab. of Neurophysics and Physiology, Univ. Paris Descartes, CNRS.*

11:00 H23 **140.12** Overexpression of both mutant and wild type human ubiquilin-2 in rats causes neuronal death with distinct pathology. Q. WU; C. HUANG; M. LIU; X. XIA*. *Thomas Jefferson Univ.*

8:00 H24 **140.13** Motor neuron expression of the voltage-gated calcium channel cacophony restores locomotion defects in a *Drosophila* TDP-43 loss of function model of ALS. D. B. MORTON*; S. M. VANDERWERF; K. M. LEMBKE; J. CHANG. *Oregon Hlth. Sci. Univ.*

9:00 H25 **140.14** The FET proteins, FUS and EWS, do not co-accumulate in a mouse model of ALS-FUS mutations. Q. DENG*; G. TAYLOR; K. HUDSON; M. GEARING; T. KUKAR. *Emory Univ., Emory Univ.*

10:00 H26 **140.15** Systemic administration of SMN inducing compounds ameliorates SMA-like and non-SMA like phenotypes in a mouse model of intermediate SMA. C. M. LUTZ*; M. OSBORNE; L. BOGDANIK; C. DAVIS; W. ANDREWS. *The Jackson Lab.*

11:00 H27 **140.16** Expression pattern of the C9ORF72 mouse ortholog corresponds with the selectivity of neural degeneration in ALS / FTD. N. SUZUKI*; A. MAROOF; K. KOSZKA; A. INTOH; E. KISKINIS; K. EGGAN. *Harvard Univ.*

8:00 H28 **140.17** Hippocampal hyperexcitability and a reduced number of parvalbumin positive interneurons in the wobbler mouse model of amyotrophic lateral sclerosis (ALS). K. D. THIELSEN*; J. M. MOSER; T. SCHMITT-JOHN; K. JENSEN; M. M. HOLM. *Aarhus Univ., Aarhus Univ.*

9:00 H29 **140.18** Identifying the role of TDP-43 in Amyotrophic Lateral Sclerosis (ALS) through interactome analysis of pathogenic TDP-43 in a transgenic mouse model. H. Y. CHIANG*; S. XIAO; B. ZHAO; D. MILETIC; K. HO; H. MOUNT; G. SCHMITT-ULMS; J. ROBERTSON. *Univ. of Toronto, Tanz Ctr. for Res. in Neurodegenerative Dis., Univ. of Toronto, Univ. of Toronto.*

POSTER

141. Aging: Synaptic Mechanisms and Behavior

Theme C: Disorders of the Nervous System

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

8:00 H30 **141.01** Reversing age-related learning deficits by genetically manipulating CREB pathway activity. X. YU*; M. ANTION; M. OH; D. M. CURLIK; J. F. DISTERHOFT. *Northwestern Univ.*

9:00 H31 **141.02** Ameliorating age-related electrophysiological and learning impairments by reducing expression of Cav1.2 channels in CA1 hippocampal neurons. D. M. CURLIK, II*; M. D. ANTION; M. M. OH; J. F. DISTERHOFT. *Northwestern Univ. Feinberg Sch. of Med.*

10:00 H32 **141.03** Brain insulin exposure: Acute and intranasal effects on calcium electrophysiological biomarkers of aging and memory. K. L. ANDERSON*; C. DEMOLL; E. M. BLALOCK; N. M. PORTER; O. THIBAULT. *Univ. of Kentucky.*

11:00 H33 **141.04** Hyperglycemia and hyperinsulinemia in the ZDF do not alter hippocampal calcium biomarkers of aging. C. DEMOLL; K. L. ANDERSON; R. GRIGGS; B. K. TAYLOR; E. M. BLALOCK; N. M. PORTER; O. THIBAULT*. *Univ. Kentucky Med. Ctr., Univ. Kentucky Med. Ctr.*

8:00 H34 **141.05** Reversal of age-related neuroinflammation in the hippocampus by overexpression of Fkbp1b. K. CHEN*; J. GANT; E. BLALOCK; O. THIBAULT; N. PORTER; I. KADISH; P. LANDFIELD. *Univ. of Kentucky, Univ. of Alabama at Birmingham.*

9:00 H35 **141.06** Mid-life and late-life interventions that induce Fkbp1b overexpression in hippocampus prevent and reverse cognitive decline in aged F344 rats. J. C. GANT*; K. CHEN; E. BLALOCK; I. KADISH; J. POPOVIC; O. THIBAULT; N. PORTER; P. LANDFIELD. *Univ. of Kentucky, Univ. of Alabama at Birmingham.*

10:00 H36 **141.07** Klotho expression and function in brain plasticity. G. D. KING*; Q. LI; J. WANG; L. DOBRUNZ; A. MALTARE; S. M. CLINTON. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham.*

11:00 I1 **141.08** Juvenile Senescence-Accelerated Mouse Prone 8 shows attenuated synaptic plasticity. K. ITO*; H. MIZUNO; M. KUWAHARA. *Univ. Tokyo.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 I2 **141.09** Riluzole partially rescues age-associated, but not lipopolysaccharide-induced, loss of glutamate transporters and spatial memory. H. M. BROTHERS*; I. BARDOU; S. C. HOPP; R. M. KAERCHER; G. L. WENK. *Sanders-Brown Ctr. On Aging, The Ohio State Univ., The Ohio State Univ., The Ohio State Univ.*

9:00 I3 **141.10** GABAA receptors aid the induction and maintenance of LTP produced by theta-burst stimulation in the hippocampal CA1 region of 2-year-old mice. I. FERANDO*; W. WEI; I. MODY. *UCLA, David Geffen Sch. of Med., UCLA, David Geffen Sch. of Med.*

10:00 I4 **141.11** The Ups and Downs of Plasticity; long-term potentiation in normal ageing. W. LIU; L. SHAHAB; Z. JOEL; T. A. HANAN; A. PAVLOU; A. NICK; P. HASLEHURST; A. TEDOLDI; K. YAP; D. SALIH; D. M. CUMMINGS; F. A. EDWARDS*. *Univ. Col. London.*

11:00 I5 **141.12** Age-associated insoluble hippocampal proteins involved in synaptic plasticity correlate with learning behavior in a rat model for MCI. P. OTTIS*; B. TOPIC; M. LOOS; K. W. LI; A. DESOUZA; D. SCHULZ; A. B. SMIT; J. P. HUSTON; C. KORTH. *Univ. of Dusseldorf, Med. Sch., Univ. of Dusseldorf, VU Univ., Synaptologics B.V.*

8:00 I6 **141.13** Enhanced maintenance of corticostriatal communication and efficient behavioral choice in aging mice reared in an enriched environment. S. L. HONG*; S. J. BARTON; G. V. REBEC. *Ohio Univ., Indiana Univ.*

POSTER

142. ADHD: Animal Models and Development

Theme C: Disorders of the Nervous System

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

8:00 I7 **142.01** Atomoxetine effects on behavior and brain gene expression in the spontaneously hypertensive rat (SHR) model of ADHD. I. DELA PENA*; I. DELA PENA; H. KIM; C. SHIN; Y. KIM; B. KIM; J. CHEONG. *Sahmyook Univ., Konkuk Univ., Seoul Natl. Hosp., Seoul Natl. Univ.*

9:00 I8 **142.02** Methylphenidate changes the expression of proteins associated with synaptic plasticity in spontaneous hypertensive rat, an animal model of attention-deficit hyperactivity disorder. Y. KIM*; J. CHEONG; I. DELA PENA; S. JEON; D. HAN; B. KIM. *Seoul Natl. Hosp., Uimyung Res. Inst. for Neurosci., Dongguk Univ. Res. Inst. of Biotech., Chung Ang Univ. Hosp., Seoul Natl. Univ. Hosp.*

10:00 I9 **142.03** Multigenerational transmission of ADHD-like behavioral phenotypes in rodent offspring exposed to EtOH during gestation period: Altered expression of dopamine transporter and an epigenetic link. P. KIM; J. PARK; C. CHOI; K. KIM; J. CHEONG; S. JEON; J. YANG; K. CHOI; C. Y. SHIN*. *Konkuk University, Sch. Med., Samyook Univ., UCLA, Natl. Inst. of food and drug safety evaluation.*

11:00 I10 **142.04** Altered glutamate receptor expression and function in hippocampus in an animal model of attention deficit hyperactivity disorder (ADHD). T. MEDIN*; V. JENSEN; J. STORM-MATHISEN; Ø. HVALBY; L. HILDEGARD BERGERSEN. *Univ. of Oslo, Univ. of Oslo, Univ. of Oslo, Univ. of Copenhagen, Univ. of Copenhagen.*

8:00 I11 **142.05** Therapeutic actions of NMDA mimetics in the experimental mouse model of ADHD generated by hippocampal neuron-specific deletion of Hb-egf. K. SASAKI*; H. UEDA. *Nagasaki Univ.*

9:00 I12 **142.06** Git1 and Git2 regulate dopamine-dependent psychostimulant actions. K. TOTH*; A. C. MARTYN; R. SCHMALZIGAUG; R. M. RODRIGUIZ; W. C. WETSEL; R. T. PREMONT. *Duke Univ. Med. Ctr., Duke Univ. Med. Ctr., Duke Univ. Med. Ctr., Duke Univ. Med. Ctr.*

10:00 I13 **142.07** "3rd trimester" ethanol exposure sensitizes the developing brain to hypoxic challenges. M. L. CARTER*; B. LEWIS; K. WELLMANN; L. FIELDS; A. HAWKEY; S. BARRON. *Univ. of Kentucky.*

11:00 I14 **142.08** **Withdrawn.**

8:00 I15 **142.09** ● Profiles of lisdexamfetamine, methylphenidate and modafinil as positive reinforcers in rats trained to self administer cocaine. D. J. HEAL*; N. W. BUCKLEY; C. P. FRANCE; D. HACKETT. *RenaSci Ltd, Univ. of Texas Hlth. Sci. Ctr., Shire Pharmaceuticals Limited,.*

9:00 I16 **142.10** ● Direct sub-second measures of tonic and phasic glutamate in the prefrontal cortex of the awake spontaneously hypertensive rat. E. MILLER*; J. E. QUINTERO; F. POMERLEAU; P. HUETTL; G. A. GERHARDT; P. E. A. GLASER. *Univ. of Kentucky.*

10:00 I17 **142.11** Choline as a treatment for fetal alcohol spectrum disorders: Postnatal choline supplementation modifies the effects of neonatal alcohol exposure on cholinergic development. N. J. MURAWSKI*; N. M. IDRUS; K. J. MORANTO; J. D. THOMAS. *San Diego State Univ., San Diego State Univ.*

11:00 I18 **142.12** Chronic methylphenidate treatment during adolescence increases impulsivity that persists into adulthood. S. S. SOMKUWAR*; K. M. KANTAK; M. T. BARDO; L. P. DWOSKIN. *Univ. of Kentucky, Boston Univ., Univ. of Kentucky.*

8:00 J1 **142.13** Mononuclear cell gene expression signature of Methylphenidate Response in ADHD. T. GOLTSER*; E. GALILI-WEISSTUB; A. MELTZER; G. BODENHEIMER; A. SHARON; R. GIESSER; L. KALMAN; L. CANETTI; R. SEGMAN. *Hadassah Hebrew U, Hadassah - Hebrew Univ. Med. center.*

9:00 J2 **142.14** Enduring effects of pharmacotherapies on female behavior and catecholamine receptors in an animal model of ADHD. J. L. LUKKES*; K. C. SONNTAG; S. L. ANDERSEN. *McLean Hospital, Harvard Med. Sch.*

10:00 J3 **142.15** Effects of developmental methylphenidate (MPH) treatment on play behavior of male and female Sprague-Dawley rats. S. A. FERGUSON*; C. D. LAW; A. J. WITHERS. *Natl. Ctr. Toxicological Res.*

11:00 J4 **142.16** ● Dissociable effects of oral methylphenidate on behavioural impulsivity in rats and dopamine D2/3 receptor availability in the striatum. D. CAPRIOLI*; Y. HONG; S. SAWIAK; B. JUPP; F. AIGBIRHIO; B. EVERITT; T. ROBBINS; T. FRYER; J. DALLEY. *Natl. Inst. on Drug Abuse, Univ. of Cambridge.*

8:00 J5 **142.17** Increased ambulatory activities in mice lacking palmitoyltransferase DHHC15. R. M. MEJIAS-ESTEVEZ*; A. L. ADAMCZYK; J. WANG; G. M. THOMAS; T. D. HELLING; R. J. ROSE; R. L. HUGANIR; M. V. PLETNIKOV; T. WANG. *Johns Hopkins Univ., Univ. of Utah, Johns Hopkins Univ., Temple Univ., Abbot Mol., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

9:00 J6 **142.18** Developmental methylphenidate (MPH) treatment in rats: Effects on monoamine neurochemistry and rotarod performance. J. J. PANOS*; C. D. LAW; J. P. O'CALLAGHAN; D. B. MILLER; S. A. FERGUSON. *Natl. Ctr. For Toxicological Research/ FDA, CDC-NIOSH.*

10:00 J7 **142.19** Disrupted vitamin A metabolism in the cortex, cerebellum and striatum accompanied with extreme hyperactivity and repetitive motor behavior in adult hypomorph Rdh10 mutant mouse. M. VUCKOVIC*; D. YANG; P. HUANG; A. M. ASHIQUE; A. S. PETERSON; J. L. NAPOLI. *Univ. of California Berkeley, Univ. of California, Berkeley, Genentech Inc., Univ. of California Berkeley.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 J8 **142.20** Down-regulation of Kcnj3 gene expression in the prefrontal cortex of prenatally malnourished rats does not depend on the H3K4me3 epigenetic mark. A. C. AMARAL*; R. BHARADWAJ; D. J. MOKLER; J. A. MCGAUGHY; J. R. GALLER; S. CALDERWOOD; S. AKBARIAN; D. L. ROSENE. *Boston Univ. Sch. of Med., Univ. of Massachusetts Med. Sch., Univ. of New England, Univ. of New Hampshire, Harvard Med. Sch., Harvard Med. Sch., Icahn Sch. of Med. at Mount Sinai.*

8:00 J9 **142.21** The role of dopamine D1 and D2 receptors in adolescent methylphenidate conditioned preference: Sex differences and BDNF. E. D. CUMMINS; S. B. GRIFFIN; C. M. DUTY; K. C. BURGESS; R. W. BROWN*. *East TN State Univ., East TN State Univ.*

9:00 J10 **142.22** YY-162 attenuates Aroclor 1254-induced behavioral side effects and cytotoxicity via activation of antioxidant potentials, DAT expression and BDNF/TrkB signaling network. Y. NAM*; J. CHAE; T. L. NGUYEN; D. DANG; J. JEONG; E. SHIN; S. KO; J. HA; H. KIM. *Chung-Ang Univ., Res. Center, Yuyu Inc., Kangwon Natl. Univ., Semyung Univ.*

10:00 J11 **142.23** Rat model for temporal lobe epilepsy and attention deficit hyperactivity disorder. F. O. RAMOS*; R. M. CYSNEIROS; F. A. SCORZA. *Federal Univ. of Sao Paulo, Mackenzie Presbiterian Univ.*

11:00 J12 **142.24** Sensitivity to delay of reinforcement in an animal model of ADHD. V. ORDUÑA*; M. VARGAS; M. GAYTÁN; A. BOUZAS. *UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO.*

8:00 J13 **142.25** Absence of selenoprotein T leads to neurodevelopmental abnormalities and hyperactive behavior associated to anxiety-like component in mice. M. CASTEX; A. ARABO; M. BÉNARD; V. ROY; J. BONNET; Y. ANOUAR; A. FALLUEL-MOREL*. *INSERM U982, Univ. of Rouen, PRIMACEN, PSY-NCA.*

9:00 J14 **142.26** Nicotine-stimulated release of hippocampal norepinephrine is reduced in an animal model of attention-deficit/hyperacitivty disorder, the spontaneously hypertensive rat. T. STERLEY*; F. M. HOWELLS; V. A. RUSSELL. *Univ. of Cape Town.*

10:00 J15 **142.27** Attention-deficit hyperactivity disorder modeled in transgenic mice expressing a rare dopamine transporter coding variant. M. A. MERGY*; R. GOWRISHANKAR; P. J. GRESCH; C. WHEELER; G. L. DAVIS; G. D. STANWOOD; M. K. HAHN; R. D. BLAKELY. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

POSTER

143. Epilepsy: Post-Seizure Reorganization

Theme C: Disorders of the Nervous System

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

8:00 J16 **143.01** Changes in long-range connectivity in partial cortical deafferentation model of epileptogenesis. M. KUśMIERCZAK; F. LAJEUNESSE; L. GRAND; I. V. TIMOFEEV*. *Univ. Laval, Univ. Laval.*

9:00 J17 **143.02** Neuronal densities in human brain tissue resected for intractable epilepsy with cortical dysplasia. A. NEMES*; Z. YING; A. DESHPANDE; I. NAJM. *Cleveland Clin., Kent State Univ., Case Western Reserve Univ.*

10:00 J18 **143.03** Functional connectivity of the inferior frontal and Heschl's gyri in rolandic epilepsy. C. J. MCGINNITY*; A. B. SMITH; S. W. GERBASE; A. GAMMERMAN; T. K. REED; J. A. DALTON; G. J. BARKER; M. P. RICHARDSON; D. K. PAL. *Inst. of Psychiatry, King's Col. London, Univ. of Cambridge.*

11:00 K1 **143.04** Longitudinal changes in diffusion properties in the white matter pathways in patients with tuberous sclerosis complex. F. M. BAUMER; J. W. SONG; P. D. MITCHELL; R. PIENAAR; M. SAHIN; P. E. GRANT; E. TAKAHASHI*. *Dept. of Neurology, Boston Children's Hosp., Boston Childrens Hospital, Harvard Med. Sch., Clin. Res. Center, Boston Children's Hosp., Dept. of Radiology, Boston Children's Hospital, Harvard Med. Sch.*

8:00 K2 **143.05** Intra- and inter-hippocampal connectivity in a KA-induced mTLE rat model. M. H. SENIK*; M. F. O'DONOGHUE; R. MASON. *Univ. of Nottingham, Queen's Med. Ctr.*

9:00 K3 **143.06** Characterization of acute proBDNF activation after seizures in the mouse. A. X. THOMAS*; Y. CRUZ DEL ANGEL; B. L. HEMPSTEAD; S. RUSSEK; A. R. BROOKS-KAYAL. *Univ. of Colorado Anschutz Med. Campus, Univ. of Colorado Anschutz Med. Campus, Weil Cornell Med. Col., Boston Univ. Sch. of Med.*

10:00 K4 **143.07** ▲ Cardiac sympathetic outflow and cardiac dysfunction during the interictal period in amygdala-kindled rats. I. I. RUIZ-SALINAS*; L. ROCHA; C. M. VILLALÓN. *CINVESTAV-IPN, CINVESTAV-IPN.*

11:00 K5 **143.08** Disruption of cortical sensory function caused by interictal activity in the mouse visual cortex. M. BRONDI; S. LANDI; S. SULIS SATO; G. RATTO*. *Inst. Nanoscience, CNR, NEST, Scuola Normale Superiore, Ctr. for Nanotechnology Innovation@NEST.*

8:00 K6 **143.09** The progression of pathophysiological, neuropathological and behavioral alterations after soman-induced status epilepticus. E. M. PRAGER*; C. P. ALMEIDA-SUHETT; V. ARONIADOU-ANDERJASKA; T. H. FIGUEIREDO; J. P. APLAND; M. F. M. BRAGA. *Uniformed Services Univ., Uniformed Services Univ., United States Army Med. Res. Inst. of Chem. Def.*

9:00 K7 **143.10** Interleukin-1β augments neuronal cell death induced by status epilepticus in the developing rat brain through IL-1RI receptor. S. MEDEL-MATUS*; L. BELTRÁN-PARRAZAL; C. MORGADO-VALLE; C. A. PÉREZ-ESTUDILLO; M. L. LÓPEZ-MERAZ. *Inst. De Neuroetología, Univ. Veracruzana, Univ. Veracruzana, Univ. Veracruzana.*

10:00 K8 **143.11** Status epilepticus induces vasogenic edema via endothelin-1-mediated two different pathways. T. KANG*; Y. KIM; J. KIM. *Col. Med, Hallym Univ., Hallym Univ.*

11:00 K9 **143.12** Hmgb1 translocation following febrile status epilepticus. K. P. PATTERSON*; C. M. DUBE; M. CHOY; M. M. MIZERA; T. Z. BARAM. *Univ. of California-Irvine, Univ. of California- Irvine, Univ. of California- Irvine.*

8:00 K10 **143.13** LIM Kinase-2 induces programmed necrotic neuronal death via dysfunction of DRP1-mediated mitochondrial fission following status epilepticus. J. KIM*; Y. KIM; S. IN; T. KANG. *Dept. of Anat. and Neurobiology, Hallym Univ., Hallym Univ., Col. of medicine, Hallym Univ., Hallym Univ.*

9:00 K11 **143.14** Acetylcholinesterase inhibition in the basolateral amygdala plays a key role in the induction of status epilepticus after soman exposure. C. P. ALMEIDA*; E. M. PRAGER; V. ARONIADOU-ANDERJASKA; T. H. FIGUEIREDO; J. P. APLAND; M. F. M. BRAGA. *Uniformed Services Univ. of Hlth. Sci., Uniformed Services Univ. of Hlth. Sci., United States Army Med. Res. INstitute of Chem. Def.*

10:00 K12 **143.15** The aggrecan component of the perineuronal net undergoes increased proteolysis following status epilepticus. E. K. RANKIN-GEE; P. MCRAE; E. BARANOV; S. ROGERS; L. WANDREY; B. E. PORTER*. *Standford Univ., The Children's Hosp. of Philadelphia.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 L1 **143.16** ● ▲ Genetic background in kindling-susceptible and kindling-resistant rats influences BDNF expression after a single afterdischarge but not after status epilepticus. T. LANGBERG; T. P. SUTULA*. *Univ. of Wisconsin.*

POSTER

144. Ischemia: Neurovascular and Animal Models

Theme C: Disorders of the Nervous System

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

8:00 L2 **144.01** Amyloid-β-induced activation of endothelial transient receptor potential melastatin-2 (TRPM2) channels leads to nitric oxide suppression and endothelial dysfunction. L. PARK*; G. WANG; P. ZHOU; J. MOORE; J. ANRATHER; C. IADECOLA. *Weill Cornell Med. Col.*

9:00 L3 **144.02** Diffuse optical spectroscopy measurements of cerebral hemodynamic and oxygen metabolism during spontaneous neuronal activity in anesthetized rats. J. SUTIN; C. CHANG; D. BOAS; E. BROWN; M. A. FRANCESCHINI*. *Massachusetts Gen. Hosp. / Harvard Med. Sch., Boston Univ., MIT, Massachusetts Gen. Hosp.*

10:00 L4 **144.03** Differences in remodeling process after vascular injury between intracranial and extracranial arteries: Analysis using a novel model in mice. M. SHIMAMURA*; H. NAKAGAMI; H. KURINAMI; H. KORIYAMA; K. WAKAYAMA; N. SATO; R. MORISHITA. *Osaka Univ., the Univ. of Tokyo, Osaka Univ.*

11:00 L5 **144.04** MMP-9 plays a major role in hyperthermia-enhanced microvascular damage in a mouse model of ischemic brain injury. P. CHALWADI; Y. XI; A. STROINK; C. WANG*. *ISU, CINF, Illinois State Univ.*

8:00 L6 **144.05** Enhanced cerebrovascular response to mitochondrial depolarization following middle cerebral artery occlusion. I. RUTKAI*; S. DUTTA; D. LIU; P. V. G. KATAKAM; D. W. BUSIJA. *TULANE UNIVERSITY.*

9:00 L7 **144.06** Characterization of nestin expression and vessel association in the ischemic core following focal cerebral ischemia in rats. Y. SHIN*; H. KIM; J. PARK; J. CHO; J. PARK; T. RIEW; S. KIM; M. LEE. *Catholic Univ. Korea.*

10:00 L8 **144.07** Astrocyte heterogeneity after cortical and white matter stroke. A. J. GLEICHMAN*; M. V. SOFRONIEW; S. T. CARMICHAEL. *UCLA.*

11:00 L9 **144.08** CREB activation contributes to preconditioning induced angiogenic effect. H. LEE*. *No 155, Section 2, Li-Nong Street, Natl. Yang-Ming Univ.*

8:00 L10 **144.09** Delayed neurovascular fate in the ischemic region following focal cerebral ischemia in mice. M. Q. JIANG*; Y. ZHAO; J. LI; L. WEI; S. P. YU. *Emory Univ., Emory Univ., Beijing Friendship Hosp.*

9:00 L11 **144.10** Neuronal death following transient global ischemia in rats is associated with microvascular PDE4D expression and is delayed in aged animals. L. CUI*; Z. HE; B. HE; M. C. FEJLEH; B. L. BEHRLE; M. G. PAULE; J. L. GREENFIELD, Jr. *Univ. of Arkansas For Med. Sci., NCTR FDA.*

10:00 L12 **144.11** The interactions among nitric oxide, caveolin-1 and autophagosome contribute to oxygen-glucose deprivation-induced claudin-5 degradation in endothelial cells. W. LIU*; J. LIU; K. J. LIU; W. LI. *Shenzhen 2nd People's Hospital, Shenzhen Univ. Hosp., Univ. of New Mexico Col. of Pharm., Shenzhen 2nd People's Hospital, Shenzhen Univ. Hosp.*

11:00 L13 **144.12** Effects of Brilliant Blue G following ischemia and reperfusion on subpopulations of rat enteric neurons expressing the P2X7 receptor. K. PALOMBIT*; C. E. MENDES; W. T. DE LIMA; P. CASTELUCCI. *Biomed. Sci. Inst. - Univ. of São Paulo, Biomed. Sci. Inst. - Univ. of São Paulo.*

8:00 L14 **144.13** Effects of estrogen and progesterone on ischemia-induced ETB receptor vasoconstriction in rat cerebral arteries. H. AHNSTEDT*; R. THIAGARAJAH; F. W. BLIXT; K. WARFVINGE; D. N. KRAUSE; L. EDVINSSON. *Exptl. Vascular Research, Clin. Sciences, Lund Univ., Univ. of California.*

9:00 L15 **144.14** A cell-to-system investigation into the sequelae of endothelin-1 induced focal ischemia in the marmoset monkey visual cortex. J. A. BOURNE*; T. D. MERSON; L. TEO. *Aust. Reg. Med. Inst., Florey Inst. of Neurosci. and Mental Hlth.*

10:00 L16 **144.15** ● Calibration of a rabbit embolic stroke model: A practical alternative for stroke therapy development. P. A. LAPCHAK*. *Cedars-Sinai Med. Ctr.*

11:00 L17 **144.16** Motivational deficits and their compensation following occlusion of the anterior cerebral artery in rats (Rattus norvegicus): A behavioural PET study. E. HOEFENER; R. GRAF; C. SCHAEFER; H. ENDEPOLS*. *MPI for Neurolog. Res.*

8:00 L18 **144.17** Photothrombotic capsular stroke model with marked motor deficit: Behavioral, histological, and micro-PET Studies. H. KIM; R. KIM; D. KIM; M. KIM; M. LEE; H. KIM*. *GIST, GIST, Wonkwang Univ. Sch. of Med., Chonnam Natl. Univ. Med. Sch.*

9:00 M1 **144.18** A cerebral infarction model in mice, with a small coefficient of variation, and no requirement for animal exclusion. Y. NAKAJO*; D. YANG; K. IIHARA; H. KATAOKA; H. YANAMOTO. *Natl. Cerebral and Cardiovasc. Ctr. Res. Inst., Rakuwa-kai Otowa Hosp., Natl. Cerebral and Cardiovasc. Res. Ctr., China-Japan Friendship Hosp., Osaka Univ. Grad. Sch. of Med.*

10:00 M2 **144.19** D-cycloserine increases hippocampal nmda receptor and bdnf density in a rat model of stroke. J. DHAWAN*; M. NAWROCKY; A. BIEGON. *Stony Brook Univ., Brookhaven Natl. Lab.*

POSTER

145. Ischemia: Perinatal Models

Theme C: Disorders of the Nervous System

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

8:00 M3 **145.01** Perinatal asphyxia induces short and long term alterations in the rat synaptic organization. F. CAPANI*; E. SARACENO; J. MUÑIZ; G. BARRETO; J. GONZALEZ; L. GUELMAN; J. ROMERO; M. HOLUBIEC; M. SAINT MARTIN; E. BLANCO; R. CASTILLA. *Inst. Inv. Cardiológicas Prof. Dr. Alberto C. Taquini, UBA-CONICET, Univ. Argentina J F Kennedy, Facultad de Ciencias, Pontificia Univ. Javeriana, UBA, CEFYBO-CONICET-Cátedra de Farmacología, Facultad de Medicina.*

9:00 M4 **145.02** Structural alterations of porcine subventricular zone after hypoxia. N. ISHIBASHI*; L. KOROTCOVA; P. D. MORTON; K. AGEMATSU; R. A. JONAS; V. GALLO. *Childrens Natl. Med. Ctr., Childrens Natl. Med. Ctr.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

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10:00 M5 **145.03** Sexually dimorphic impairment of rat brain mitochondrial respiration following neonatal hypoxic-ischemia. T. G. DEMAREST*; J. WADDELL; R. A. SCHUH; M. C. MCKENNA; G. FISKUM. *Univ. of Maryland Sch. of Med., Univ. of Maryland Shock Trauma Anesthesiol. Res. (S.T.A.R.), Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med.*

11:00 M6 **145.04** Deficits of brainstem and spinal cord functions after neonatal hypoxia-ischemia in mice. B. BELLOT; J. ROUX-PEYRONNET; L. VINAY; J. VIEMARI*. *iNSTITUT DE NEUROSCIENCES DE LA TIMONE.*

8:00 M7 **145.05** Early olfactory learning deficits after antenatal hypoxia-ischemia brain injury in rabbits. A. DROBYSHEVSKY*; J. RUGANG; M. DERRICK; K. LUO; S. TAN. *Northshore Univ. Hlth. Syst. Res. Inst.*

9:00 M8 **145.06** Effects of early experience and inter-alpha-inhibitor protein on working memory in a rodent model of hypoxia- ischemia. C. M. GAUDET*; Y. LIM; B. S. STONESTREET; S. W. THRELKELD. *Rhode Island Col., Warren Alpert Med. Sch., Women and Infant's Hosp., Rhode Island Col.*

10:00 M9 **145.07** Metabolic responses to therapeutic hypothermia after hypoxia-ischemia in newborn rats. T. TAKENOUCHI; T. NAKANISHI; Y. SUGIURA; Y. NAGAHATA; T. SUGIOKA; A. KUBO*; T. TAKAHASHI; M. KAJIMURA; M. SUEMATSU. *Keio Univ., Shimadzu Corp., JST Precursory Res. for Embryonic Sci. and Technol. (PRESTO) Project, JST, ERATO, Suematsu Gas Biol. Project.*

11:00 M10 **145.08** Cell size anomalies in the MGN in P3 and P7 HI injured rodents who showed rapid auditory processing deficits. M. L. ALEXANDER*; H. GARBUS; A. L. SMITH; T. S. ROSENKRANTZ; R. H. FITCH. *Univ. Connecticut, Univ. of Connecticut Hlth. Ctr.*

8:00 M11 **145.09** The role of fetal inflammatory response in perinatal arterial ischemic stroke pathophysiology. C. GUIRAUT*; M. BROCHU; N. CAUCHON; M. LEPAGE; G. SEBIRE. *Univ. De Sherbrooke.*

9:00 M12 **145.10** Exploration of white matter damage in patients who underwent extracorporeal membrane oxygenation treatment in childhood. E. PATAI*; J. COOPER; M. MISHKIN; F. VARGHA-KHADEM. *UCL Inst. of Child Hlth., NIH, UCL, Inst. of Child Hlth.*

10:00 M13 **145.11** The integrated stress response in perinatal white matter injury. B. CLAYTON*; A. PUSIC; B. POPKO. *Univ. of Chicago.*

11:00 M14 **145.12** Diffuse white matter injury alters NG2+-OPC synaptic input in the cerebellar white matter. M. ZONOUZI*; J. SCAFIDI; P. LI; S. CULL-CANDY; M. FARRANT; V. GALLO. *Univ. Col. London, Children's Natl. Med. Ctr.*

POSTER

146. Neuroinflammation in MS and Other Demyelination Disorders

Theme C: Disorders of the Nervous System

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

8:00 M15 **146.01** Mutations in a novel GTPase implicated in lipoprotein formation lead to progressive demyelination of the nervous system. E. BITOUN*; J. KENYON; B. EDWARDS; R. WEBMASTER; L. PATON; D. BEESON; K. DAVIES. *MRC Functional Genomics Unit, Weatherall Inst. of Mol. Med.*

9:00 M16 **146.02** Interaction between renin-angiotensin and innate immune systems in autoimmune neuroinflammation. X. GUO*; K. NAMEKATA; C. HARADA; T. HARADA. *Tokyo Metropolitan Inst. of Med. Sci.*

10:00 M17 **146.03** ● Overly rapid correction of severe hyponatremia with vasopressin receptor antagonists poses a risk of inducing osmotic demyelination syndrome and hemorrhage. H. TAKAGI*; Y. SUGIMURA; H. SUZUKI; H. IZUMIDA; H. FUJISAWA; K. NAKASHIMA; K. OGAWA; S. TAKEUCHI; H. OCHIAI; A. KIYOTA; H. SUGA; Y. OISO. *Nagoya Univ. Grad. Sch. of Med.*

11:00 M18 **146.04** ▲ Cuprizone diet induces inflammatory demyelination and appears to affect NR2B-mediated signaling in the dorsal LGN. S. E. ARAÚJO*; H. R. MENDONCA; P. CAMPELLO-COSTA; K. M. JACOBS; B. FUSS. *Federal Univ. of Rio De Janeiro/ Fluminense Federal Univ., Federal Fluminense Univ., Virginia Commonwealth Univ.*

8:00 N1 **146.05** *In vivo* interleukin-13 immuno gene therapy prevents microglia recruitment and severe demyelination in the cuprizone mouse model for multiple sclerosis. C. GUGLIELMETTI; N. DE VOCHT; J. DAANS; J. PEERLINGS; F. KARA; C. BIGOT; Z. BERNEMAN; M. VERHOYE; S. HENDRIX; P. PONSAERTS; A. VAN DER LINDEN*. *Univ. of Antwerp, Univ. of Antwerp, Univ. of Antwerp, Hasselt Univ.*

9:00 N2 **146.06** Adult neural precursor cells are major contributors to oligodendrocyte regeneration and CNS remyelination following cuprizone-induced demyelination. T. D. MERSON*; Y. L. XING; P. RÖTH; B. H. A. CHUANG; T. J. KILPATRICK. *Florey Inst. of Neurosci. and Mental Hlth., Melbourne Neurosci. Inst., Ctr. for Neurosci. Res.*

10:00 N3 **146.07** Inhibition of 2-AG hydrolytic enzyme ABHD6 ameliorates neuroinflammation and disease progression in mice with EAE. Y. ZHANG*; J. WEN; R. RIBEIRO; M. TANAKA. *Uniformed Services Univ.*

11:00 N4 **146.08** Dysregulation of iron homeostasis in the CNS in experimental autoimmune encephalomyelitis (EAE) and its effects on functional loss. J. G. ZARRUK*; J. BERARD; K. SCHULZ; J. LEE; S. DAVID. *McGill Univ. Hlth. Ctr., Univ. of Nebraska-Lincoln.*

8:00 N5 **146.09** Protein expression changes of nerve growth factor (NGF) during the inflammatory pre-demyelinating stages of experimental autoimmune encephalomyelitis (EAE): Implications in multiple sclerosis (MS) and myelin repair. C. R. ACOSTA; C. M. CORTES; M. P. NAMAKA*. *Univ. of Manitoba, Univ. Manitoba.*

9:00 N6 **146.10** ▲ CCL5-glutamate crosstalk and presynaptic defects in EAE mice. A. PITTALUGA*; S. DI PRISCO; E. MEREGA; M. LANFRANCO; M. MILANESE; S. CASAZZA. *Univ. of Genoa, Dept. Pharm., Univ. of Genoa, Dept. Pharm., Univ. of Genoa,.*

10:00 N7 **146.11** Induction of experimental autoimmune encephalomyelitis with recombinant human myelin oligodendrocyte glycoprotein in Incomplete Freund Adjuvant in the educated immune system of cynomolgous monkeys. C. SERGUERA*; A. BAUCHET; K. HAANSTRA; C. FOVET; L. WATROBA; B. T'HART; F. LACHAPELLE. *INSERM, Biomed. Primate Res. Ctr., INSERM.*

11:00 N8 **146.12** Temporal desynchroniztion of speed-based neural networks in multiple sclerosis. N. A. HUBBARD; J. L. HUTCHISON; G. REMINGTON; J. HART, Jr.; S. DAVIS; E. FROHMAN; B. P. RYPMA*. *Univ. of Texas at Dallas, Univ. of Texas at Dallas, Univ. of Texas Southwestern, Southern Methodist Univ.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

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8:00 N9 **146.13** Remyelination failure in multiple sclerosis: A case of inflammation-induced tissue hypothyroidism? L. CALZA*; M. FERNANDEZ; M. ALESSANDRI; L. GIARDINO. *CIRI-SDV, Univ. of Bologna.*

9:00 N10 **146.14** Role of insulin in excitotoxic injury to developing oligodendrocytes. C. M. ELITT*; J. WANG; A. BACH; P. A. ROSENBERG. *Boston Children's Hosp., Harvard Med. Sch.*

10:00 N11 **146.15** Decreased N-Acetyl aspartate in gray matter is correlated with decreased availability of acetate for myelination in white matter in postmortem multiple sclerosis cortex. S. LI; R. CLEMENTS; M. SULAK; R. GREGORY; J. MCDONOUGH; E. J. FREEMAN*. *Kent State Univ., Kent State Univ., Kent State Univ.*

11:00 N12 **146.16** A fluorinated N-acetyl-glucosamine analog overcomes astrocytic chondroitin sulfate proteoglycans. M. B. KEOUGH*; M. G. HURLBERT; J. R. PLEMEL; P. ZHANG; C. LING; V. W. YONG. *Univ. of Calgary.*

8:00 N13 **146.17** Timp-1 regulation of astrocytic chemokine production mediates thelier's virus-induced immunopathology. K. M. JOHNSON*; R. PAGARIGAN; K. CLAYCOMB; A. SACINO; C. S. MOORE; B. SHRESTHA; J. WHITTON; S. J. CROCKER. *Univ. of Connecticut, UCONN Hlth. Ctr., UCONN Hlth. Ctr., The SCRIPPS Res. Institue.*

POSTER

147. Brain Injury I

Theme C: Disorders of the Nervous System

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

8:00 N14 **147.01** Cortical silencing after experimental TBI reveals a dynamic mechanism of contra-lesional control over the affected forelimb: A behavior and fMRI study. D. VERLEY*; D. TORO-LIRA; R. SUTTON; N. G. HARRIS. *Derek Verley - UCLA Neurosurg., UCLA, UCLA.*

9:00 N15 **147.02** PTSD and mild blast tbi; an explosive connection. L. KAWA*; M. RISLING; T. HÖKFELT; D. AGOSTON. *Karolinska Institutet, Uniformed Services Univ.*

10:00 N16 **147.03** Subacute intranasal administration of tissue plasminogen activator promotes functional recovery and neuroplasticity in rats after traumatic brain injury. Y. ZHANG; M. CHOPP; Y. MENG; Z. LIU; A. MAHMOOD; Y. XIONG*. *Henry Ford Hlth. Syst., Henry Ford Hlth. Syst., Oakland Univ.*

11:00 N17 **147.04** Deficits in visual discrimination following frontal traumatic brain injury are associated with deficits in motivation, but not motor ability. C. VONDER HAAR*; E. A. JACOBS; M. R. HOANE. *Southern Illinois University-Carbondale.*

8:00 N18 **147.05** Omic profiling identifies distinct protein and lipid biomarker profiles correlating with diagnoses of TBI and PTSD in a deployed military population. T. E. EMMERICH*; G. CRYNEN; L. ABDULLAH; J. REED; J. EVANS; H. MONTAGUE; A. HART; A. GONZALEZ; A. BISHOP; B. MOUZON; S. FERGUSON; R. PELOT; M. MULLAN; M. DRETSCH; F. CRAWFORD. *Roskamp Inst., Dept. of the Army.*

9:00 O1 **147.06** Post-traumatic hippocampal neurogenesis in POMC-EGFP mice following a controlled cortical impact injury. L. E. VILLASANA; K. N. KIM; G. L. WESTBROOK; E. SCHNELL*. *OHSU, Portland VA Med. Ctr., OHSU.*

10:00 O2 **147.07** Cd-36 a novel inflammatory marker in traumatic brain injury. D. G. HERNANDEZ-ONTIVEROS*; N. TAJIRI; S. ACOSTA-PEREZ; M. PABON; K. SHINOZUKA; H. ISHIKAWA; Y. KANEKO; C. BORLONGAN. *Univ. of South Florida, Univ. of South Florida.*

11:00 O3 **147.08** The traumatic brain injury as a predisposing factor for Parkinson´s disease: Evidence obtained in an experimental model. P. A. DE OLIVEIRA*; F. C. MATHEUS; J. BEN; E. L. G. MOREIRA; M. L. SCHWARZBOLD; R. WALZ; R. D. S. PREDIGER. *Federal Univ. of Santa Catarina, Federal Univ. of Santa Caratina.*

8:00 O4 **147.09** Mild blast exposure induces prolonged aberrant cerebellar glutamate dyshomeostasis in a murine model of blast-induced traumatic brain injury. J. S. MEABON; B. R. HUBER; K. D. MEEKER; E. R. PESKIND; D. G. COOK*. *Veterans Affairs Med. Ctr. / Univ. of Washington, VA Northwest Network Mental Illness Research, Education, and Clin. Ctr., Univ. of Washington, VA Northwest Network Mental Illness Research, Education, and Clin. Ctr., VA Med. Ctr. / Univ. of Washington.*

9:00 O5 **147.10** *In-vivo* two-photon imaging of impaired balance between neuronal excitation/inhibition and acute vascular trauma in sensory barrel cortex correlates with growth of microinfarcts following CCI injury in mice. M. K. JAISWAL*; F. W. LISCHKA; X. XU; Z. GALDZICKI. *Ctr. For Neurosci. and Regenerative Medicine, USUHS, Dept. of Anatomy, Physiol. and Genetics; USUHS, Sch. of Med.*

10:00 O6 **147.11** Time profiles of 50 proteins measured in the brain tissue, cerebrospinal fluid and blood of severe traumatic brain injury patients. V. LAFORTE*; J. MARCOUX; D. JUNCKER. *McGill Univ., Montreal Neurolog. Hosp. and Inst., McGill Univ., McGill Univ. Hlth. Ctr. Res. Inst., McGill Univ.*

11:00 O7 **147.12** Mild traumatic brain injury alters behavior and gene expression in the prefrontal cortex of juvenile rats. R. M. MYCHASIUK*; A. FARRAN; C. J. MACMILLAN; I. MA; M. J. ESSER. *Univ. Lethbridge, Univ. of Calgary.*

8:00 O8 **147.13** Abnormalities of the visual evoked potential in postconcussion syndrome. M. D. MCCRADY*; S. RASMUSSEN; A. UPTON; P. ROSEBUSH; M. MAZUREK. *McMaster Univ., McMaster Univ.*

9:00 O9 **147.14** Paternal stress changes offspring behavior lifelong and reduces behavioral recovery after early brain injury in rats. A. F. HARKER*; A. NAKAHASHI; B. KOLB; R. GIBB. *Univ. of Lethbridge.*

10:00 O10 **147.15** Brain region-specific histopathological effects of varying trajectories of controlled cortical impact injury model of traumatic brain injury. M. PABON*; N. TAJIRI; K. SHINOZUKA; S. ACOSTA; D. WON KIM; H. ISHIKAWA; D. HERNANDEZ; J. VASCONCELLOS; T. DAILEY; C. METCALF; M. STAPLES; C. TAMBOLI; A. BRIESE; Y. KANEKO; C. V. BORLONGAN. *Univ. of South Florida, Univ. South Florida, Univ. of South Florida.*

11:00 O11 **147.16** Mouse model of mild traumatic brain injury caused by one-time air-blast with ultra-long-term abnormalities in neuronal chloride and social and emotional behavior. K. BERGLUND*; M. SKOTAK; F. WANG; N. CHANDRA; W. LIEDTKE. *Duke Univ., Univ. of Nebraska-Lincoln.*

8:00 O12 **147.17** Astrocytic aquaporin-4 contributes to changes in cortical DTI signals. J. S. COATS*; A. M. FUKUDA; S. SUN; A. OBENAUS; J. BADAUT. *Loma Linda Univ., Loma Linda Unviversity, Loma Linda Univ., Loma Linda Univ., Loma Linda Univ., Loma Linda Univ.*

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9:00 P1 **147.18** A model of traumatic brain injury in the mouse - investigation of an omega-3 fatty acid for acute neuroprotection. R. B. ANGUS*; P. YIP; Y. AL-OMRAN; G. GIOVANNONI; A. MICHAEL-TITUS. *Queen Mary, Univ. of London.*

10:00 P2 **147.19** Eye movements and postural stability in mild traumatic brain injury. J. H. ANDERSON*; P. C. SAVAYAN. *Univ. Minnesota, Minneapolis VA Hlth. Care Syst., Minneapolis VA Hlth. Care Syst.*

11:00 P3 **147.20** Inhaled nitric oxide reduces neuronal damage and improves survival after experimental subarachnoid hemorrhage. N. A. TERPOLILLI*; A. DIENEL; S. FEILER; F. MÜLLER; S. C. THAL; K. SCHÖLLER; N. PLESNILA. *Univ. of Munich, Dept. of Neurosurg., Univ. of Munich, Univ. of Mainz, Univ. of Munich.*

8:00 P4 **147.21** Characterization of thoracic complete transection spinal cord injury model of muscle spasticity in sprague-dawley rats. J. A. CORLETO; O. KAKINOHANA; C. SANTUCCI; S. NGUYEN; M. P. HEFFERAN*; M. MARSALA. *UCSD, Neuralstem Inc.*

9:00 P5 **147.22** Two-dimensional zymography analysis of gelatinase isoform activities in mouse brain and human cerebral spinal fluids after traumatic brain injury. S. CHEN*; F. MENG; B. TOMLINSON; Z. CHEN; S. BARNES; Z. GU. *Univ. of Missouri-Columbia, Univ. of Missouri-Columbia, Univ. of Missouri-Columbia.*

10:00 P6 **147.23** Deletion of androgen receptor promotes the cleavage of CRMP2 induced by traumatic brain injury. Y. CHEN; W. CHEN; L. YANG*. *Taipei Med. Univ., Taipei Med. Univ.*

11:00 P7 **147.24** Disruptions in mitochondrial homeostasis in the striatum following traumatic brain injury. J. L. HARMON*; R. A. WEBER; R. G. SCHNELLMANN; D. L. ADKINS. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

8:00 P8 **147.25** Longitudinal characterization of neurobehavioral and neuropathological outcomes in young hTau transgenic mice after single or repetitive mild traumatic brain injury. B. C. MOUZON*; J. OLUBUNMI; A. FERRO; G. CRYNEN; C. BACHMEIER; C. ACKER; P. DAVIE; M. MULLAN; W. STEWART; F. CRAWFORD. *The Roskamp Inst., James A. Haley Veterans' Hosp., The Open Univ., Albert Einstein Col. of Med., Feinstein Inst. for Med. Res., Southern Gen. Hosp., Univ. of Glasgow.*

9:00 P9 **147.26** ● Different profiles of CSF and serum biomarkers of CNS injury in preclinical models of traumatic brain injury and neurotoxicity. O. Y. GLUSHAKOVA*; D. JOHNSON; N. DENSLOW; R. HAYES. *Banyan Biomarkers Inc., Univ. of Florida.*

10:00 P10 **147.27** Inhibition of nitric oxide synthase restores cerebral artery tone in a rodent model of traumatic brain injury. N. VILLALBA ISABEL*; T. L. TRAN; M. T. NELSON; G. C. WELLMAN; K. FREEMAN. *Univ. of Vermont.*

POSTER

148. Spinal Cord Injury: Therapeutics I

Theme C: Disorders of the Nervous System

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

8:00 P11 **148.01** Benefits of a novel combination acute bisperoxovanadium and subacute Schwann cell transplantation therapy following spinal cord injury. C. L. WALKER*; X. WANG; C. L. BULLIS; C. FRY; M. J. WALKER; L. DENG; Q. LU; X. XU. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*

9:00 P12 **148.02** Differential changes in gene expression in lumbosacral ventral roots undergoing Wallerian degeneration at early and late time points. A. A. AMIN*; H. H. CHANG; J. WU; A. HOKE; D. H. GESCHWIND; G. COPPOLA; L. A. HAVTON. *Univ. of California At Irvine, Univ. of California At Irvine, UCLA, Johns Hopkins Univ.*

10:00 P13 **148.03** Non-invasive systemic modulation of the CSPG receptor PTPσ promotes locomotor and urinary recovery following severe contusive spinal cord injury. B. T. LANG*; J. M. CREGG; M. A. DEPAUL; A. R. FILOUS; A. P. TRAN; S. LI; T. A. EVANS; S. A. BUSCH; J. SILVER. *Case Western Reserve Univ., Shriners Hosp. Pediatric Res. Ctr. and Dept. of Anat. and Cell Biol.*

11:00 P14 **148.04** ● Glial growth factor-2 treatment improves locomotor and bladder function following spinal cord injury in adult rats. E. L. TROY; A. GANGULY*; C. A. MCEWEN; S. J. E. WONG-GOODRICH; Z. HUANG; J. F. IACI; R. W. COLBURN; A. O. CAGGIANO; T. J. PARRY. *Acorda Therapeut., Acorda Therapeut.*

8:00 P15 **148.05** Morphine: Friend or foe? The deleterious effects of administering morphine after a spinal cord injury. A. L. ELLIS*; J. WIESELER; J. FAVRET; K. STONE; S. MAIER; K. RICE; S. FALCI; L. WATKINS. *Univ. of Colorado Boulder, Natl. Inst. on Drug Abuse, Natl. Inst. on Alcohol Abuse and Alcoholism, Craig Hosp.*

9:00 P16 **148.06** Combinatorial strategy of deoxyribozyme treatment and treadmill training after spinal cord contusion injury in adult rats. D. PAPE*; J. BAUER; B. GRIMPE. *Heinrich Heine Univ. Düsseldorf.*

10:00 P17 **148.07** ● Injectable self-assembling peptide hydrogel as scaffolds results in the regeneration after spinal cord injury. K. ANDO*; S. IMAGAMA; Z. ITO; A. MURAMOTO; K. KOBAYASHI; N. ISHIGURO. *Nagoya Univ. Sch. of Med.*

11:00 P18 **148.08** CSGalNAcT1, an enzyme required for chondroitin sulfate synthesis, is critical to recovery from neural injury. K. TAKEUCHI*; N. YOSHIOKA; M. OKADA; M. IGARASHI. *Dept.of Mol.Cell Biol(Biochem2),Niigata Univ.*

8:00 Q1 **148.09** Selective ablation of the tumor after NSCs transplantation by controlling the immune suppression. G. ITAKURA*; Y. KOBAYASHI; Y. TAKAHASHI; S. NORI; S. NISHIMURA; M. TAKANO; T. KONOMI; H. IWAI; A. IWANAMI; Y. TOYAMA; H. OKANO; M. NAKAMURA. *Dept. of Orthopaedic Surgery, Sch. of Medicine, Keio Univ., Dept. of Physiology, Sch. of Medicine, Keio Univ.*

9:00 Q2 **148.10** Scar resection and PEG-implantation as successful treatment strategy for chronic severe spinal cord injury. V. ESTRADA*; N. BRAZDA; C. SCHMITZ; H. BLAZYCA; R. MARTINI; H. W. MUELLER. *Mol. Neurobiol. Lab., Dept. of Neurol., Heinrich Heine Univ., Wuerzburg Univ. Clinics.*

10:00 Q3 **148.11** Systemic administration of Epothilone B promotes axon regeneration and functional recovery after spinal cord injury. J. RUSCHEL*; F. HELLAL; K. FLYNN; F. BRADKE. *German Ctr. For Neurodegenerative Dis.*

11:00 Q4 **148.12** Concurrent treatment of stem cell therapy with Curcumin and Epigallocatechin gallate synergistically improves recovery from spinal cord injury. C. SHANNON; J. NEIL; R. ZEMAN; K. DAS; R. MURALI; M. JHANWAR-UNIYAL*. *New York Med. Col., New York Med. Col.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 Q5 **148.13** Human iPS cell-derived oligodendrocyte precursor cells promote functional recovery after spinal cord injury in adult mice. S. KAWABATA*; M. TAKANO; Y. NUMASAWA; G. ITAKURA; Y. KOBAYASHI; Y. TOYAMA; H. OKANO; M. NAKAMURA. *Dept. of Orthopaedics Surgery, Sch. of Medicine, Keio Univ., Dept. of Pediatrics, Sch. of Medicine, Keio Univ., Dept. of Physiology, Sch. of Medicine, Keio Univ.*

9:00 Q6 **148.14** ▲ Structural and functional changes of distal site to the lesion after chronic complete spinal cord injury. K. YOKOTA*. *Kazuya Yokota/ Kyushu Univ.*

10:00 Q7 **148.15** The effect of Amiloride on the endoplasmic reticulum stress in the injured spinal cord. M. KUROIWA*; M. WATANABE; H. KATOH; K. SUYAMA; D. MATSUYAMA; T. IMAI; J. MOCHIDA. *Tokai Univ. Sch. of Med.*

11:00 Q8 **148.16** Investigation of the effect of cryopreservation on the character of human iPS cell-derived neural stem/progenitor cells *in vitro.* Y. NISHIYAMA*; Y. KOBAYASHI; G. ITAKURA; Y. TOYAMA; H. OKANO; M. NAKAMURA. *Dept. of Orthopedic Surgery, Sch. of Medicine, Keio Univ., Dept. of Physiology, Sch. of Medicine, Keio Univ.*

8:00 Q9 **148.17** Improved nerve regeneration by *in vivo* overexpression of transcription factors using a dual promoter adeno-associated viral vector. N. D. FAGOE*; C. L. ATTWELL; D. KOUWENHOVEN; R. EGGERS; J. VERHAAGEN; M. R. J. MASON. *Netherlands Inst. for Neurosci., Vrije Universtiteit.*

9:00 Q10 **148.18** Gene delivery of the astrocyte glutamate transporter, GLT1, exacerbates diaphragmatic dysfunction in an experimental model of cervical contusion spinal cord injury. A. C. LEPORE*; C. NICAISE; K. LI; D. SANNIE; T. J. HALA; J. L. PARKER; R. PUTATUNDA; K. A. REGAN; V. SUAIN; J. BRION; F. RHODERICK; M. L. OSHINSKY; H. HEKIERSKI; M. C. WRIGHT; D. J. POULSEN. *Thomas Jefferson Univ. Med. Col., Univ. Libre de Bruxelles, Arcadia Univ., Univ. of Montana, Thomas Jefferson Univ. Med. Col.*

10:00 Q11 **148.19** Role of endocannabinoid signaling in remote damage after spinal cord injury. E. BISICCHIA; L. LATINI; V. SASSO; M. MACCARRONE; S. ODDI; M. MOLINARI; M. VISCOMI*. *Fondazione Santa Lucia, Campus Bio-Medico Univ. of Rome, Univ. of Teramo.*

11:00 Q12 **148.20** ▲ Dapsone reduces the macrophages infiltration after spinal cord injury in rats. D. M. DE JESUS*; C. RIOS; M. MÉNDEZ-ARMENTA; B. PINEDA; A. DÍAZ-RUÍZ. *Natl. Inst. of Neurol. and Neurosurg., Autonomous Metropolitan Univ., Autonomous Metropolitan Univ., Natl. Inst. of Neurol. and Neurosurg., Natl. Inst. of Neurol. and Neurosurg.*

8:00 Q13 **148.21** Therapeutic potential of biodegradable braided scaffolds in spinal cord injury. K. TAKASHIMA*; E. FUSAOKA-NISHIOKA; M. HOSHINO; K. UESUGI; N. YAGI; T. IMAI; A. NAKAHIRA; N. OSUMI; M. KOHZUKI; H. ONODERA. *Tohoku Univ., Core Res. for Evolutional Sci. and Technol. of the Japan Sci. and Technol. Agency, KAN Res. Inst., Japan Synchrotron Radiation Res. Inst. (SPring8), Osaka Prefecture Univ., Natl. Hosp. Organization in Hokkaido-Tohoku Block.*

9:00 Q14 **148.22** The CNR preclinical database for knowledge management in spinal cord injury research. N. BRAZDA*; M. KRUSE; F. KRUSE; T. KIRCHHOFFER; R. KLINGER; H. W. MUELLER. *Heinrich Heine Univ. Düsseldorf, Ctr. for Neuronal Regeneration e.V., Univ. of Bielefeld.*

POSTER

149. Nerve Trauma

Theme C: Disorders of the Nervous System

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

8:00 Q15 **149.01** Primary patient use of a virtual environment and advanced upper extremity myoelectric prosthesis. B. N. PERRY; R. S. ARMIGER; C. W. MORAN; P. F. PASQUINA; J. W. TSAO*. *Walter Reed Natl. Military Med. Ctr., John Hopkins Univ., Uniformed Services Univ. of the Hlth. Sci., US Navy Bureau of Med. and Surgery.*

9:00 Q16 **149.02** ● Nerve regeneration in hollow chitosan tubes (BIOHYBRID) and in autologous nerve grafts bridging a sciatic nerve defect in healthy and diabetic rats. L. STENBERG; S. GEUNA; C. GROTHE; T. FREIER; L. B. DAHLIN*. *Dept. of Clin. Sci. in Malmo, Dept. of Clin. and Biol. Sci., Hannover Med. Sch., Medovent GmbH, Scania Hand Ctr. AB.*

10:00 Q17 **149.03** Cochlear local cells contribute to the changes in complement components in the organ of Corti after acoustic overstimulation. B. HU*; Q. CAI. *State Univ. Buffalo.*

11:00 Q18 **149.04** A multilevel analysis reveals that molecular pathways that drive fibrosis, axon repulsion and neovascularization are distinct and dominant features of the human neuroma-in-continuity. F. DE WINTER*; M. R. TANNEMAAT; S. A. HOYNG; A. C. VAN VLIET; S. G. VAN DUINEN; M. J. A. MALESSY; J. VERHAAGEN. *Netherlands Inst. for Neurosci., Leiden Univ. Med. Ctr., Leiden Univ. Med. Ctr., Leiden Univ. Med. Ctr., VU Univ. Amsterdam.*

8:00 R1 **149.05** microRNA-222 promotes neurite outgrowth from adult dorsal root ganglion neurons by targeting pten. F. DING*; S. ZHOU; Y. GONG; T. ZHANG; X. GU; D. SHEN. *Nantong University, China.*

9:00 R2 **149.06** Cannabidiol treatment induces neuroprotection after peripheral nerve lesion in neonatal rats. M. PEREZ*; S. U. BENITEZ; L. P. CARTAROZZI; E. DEL BEL; F. S. GUIMARÃES; A. L. R. OLIVEIRA. *Unicamp, USP.*

10:00 R3 **149.07** The role of Wnt3a and the beta-catenin signaling pathway at the motor endplate following traumatic nerve injury. J. S. JUNG; D. FRUMP; M. WATERMAN; T. MOZAFFAR; R. GUPTA*. *Univ. California Irvine, Univ. California Irvine.*

11:00 R4 **149.08** Different compensatory mechanisms leading to functional recovery after sciatic axotomy in the absence of toll like receptors 2 and 4. C. M. FRERIA*, III; A. L. R. OLIVEIRA. *Unicamp.*

8:00 R5 **149.09** Sensorimotor deficits in the rabbit common peroneal nerve injury model. B. R. JOHNSTON; P. K. PRASAD; N. M. ALZOGHOUL; R. GRANJA-VAZQUEZ; M. I. ROMERO-ORTEGA*. *Univ. of Texas at Arlington.*

9:00 R6 **149.10** Wallerian degeneration of axons is regulated by a pathway involving Nmnat2 turnover, a rise in NMN and a downstream action of Sarm1. M. P. COLEMAN*; J. GILLEY; S. MILDE; R. ADALBERT; L. CONFORTI. *The Babraham Inst., The Babraham Inst., Univ. of Nottingham.*

10:00 R7 **149.11** Human adipose-derived mesenchymal stem cells improve neuropathic pain and enhance nerve regeneration in a rat model of crushing sciatic nerve injury. H. LEE*; H. LEE; Y. HA; K. KIM; S. YI; D. YOON; Y. YOON; Y. YOU; D. SHIN*. *Yonsei Univ. Collage of Med.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 R8 **149.12** Aerobic exercise combined with Schwann cells therapy and tubulization enhance nerve regeneration after mouse sciatic nerve transection. C. GOULART; A. SOUTO; J. OLIVEIRA; S. MARQUES; F. ALMEIDA; C. TONDA TURO; S. DE LIMA; S. JÜRGENSEN; A. B. MARTINEZ*. *UFRJ, UFRJ - Faculdade de Medicina, UFF, UFRJ, Politecnico di Torino.*

8:00 R9 **149.13** Lipid microtubules as a flexible drug delivery vehicle for peripheral nerve injuries. M. J. MARTIN; J. SILVERBERG; J. CHEETHAM*. *Cornell Univ., Cornell Univ.*

9:00 R10 **149.14** Application of Raman spectroscopy for visualizing biochemical changes during peripheral nerve regeneration *in vitro* and *in vivo.* S. MORISAKI*; C. OTA; K. MATSUDA; H. FUJIWARA; R. ODA; T. KUBO; M. KAWATA. *Kyoto Prefectural Univ. of Med., HORIBA, Ltd., Kyoto Prefectural Univ. of Med., Kyoto Prefectural Univ. of Med.*

10:00 S1 **149.15** ATF3 induction and axon regeneration in DRG neurons. Y. CHENG*; E. HUEBNER; J. IVANIS; A. YEKKIRALA; L. BARRETT; M. THOMPSON; O. BABANIYI; L. DAVIDOW; L. RUBIN; C. WOOLF. *F.M. Kirby Neurobio. Center, Boston Children's Hosp., Dept. of Neurology, Harvard Med. Sch., Harvard Stem Cell Inst.*

11:00 S2 **149.16** Transcranial Magnetic Stimulation (TMS) as a noninvasive method for evaluation of sciatic nerve regeneration. R. P. CAMPOS*; A. M. LEÃO; C. H. PEREIRA; C. D. VARGAS. *Univ. Federal Do Rio De Janeiro, Univ. Federal do Rio de Janeiro.*

8:00 S3 **149.17** Transgenic over-expression of BACE1 inhibits peripheral nerve regeneration in mice. K. A. RUSSELL*; E. ROCKENSTEIN; E. MASLIAH; M. H. FARAH. *Johns Hopkins- Sch. of Med. Neurol., Univ. of California, San Diego- Sch. of Med.*

9:00 S4 **149.18** Granulocyte colony stimulating factor (G-CSF) does not improve recovery of gastrocnemius weight or perception of touch after sciatic nerve injury and repair in rats. H. FROST; N. P. DANIELSEN*; L. B. DAHLIN. *Lund Univ., Lund Univ., Lund Univ.*

10:00 S5 **149.19** Analysis of altered gene expression in chronically denervated Schwann cells. J. SCHEIB*; M. C. WRIGHT; E. CONNOR; T. SHARMA; G. COPPOLA; D. GESCHWIND; A. HOKE. *Johns Hopkins Univ., Arcadia Univ., UCLA, Johns Hopkins Univ.*

11:00 S6 **149.20** The role of Wnt5a in peripheral nerve regeneration. A. C. VAN VLIET; M. R. TANNEMAAT; J. N. NOORDERMEER; L. G. FRADKIN; Y. ZOU; M. J. A. MALESSY; J. VERHAAGEN*; F. DE WINTER. *Neth Inst. Neurosc, Dept. of Neurosurgery, LUMC, LUMC, LUMC, UCSD, Vrije Univ.*

8:00 S7 **149.21** Mechanisms and observations of *in vitro* and *in vivo* acidic laminin-mediated nervous tissue repair. A. E. HAGGERTY*; M. OUDEGA. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

9:00 S8 **149.22** Prevention of painful neuromas by a regenerative block device. R. GRANJA-VAZQUEZ*; B. R. JOHNSTON; M. LE; M. I. ROMERO-ORTEGA. *Univ. of Texas At Arlington.*

10:00 S9 **149.23** Effect of vascular endothelium growth factor (vegf) on peripheral nerve regeneration. V. H. GUAIQUIL*; Z. PAN; N. KARAGIANNI; S. FUKUOKA; M. ROSENBLATT. *Weill-Cornell Med. Col.*

11:00 S10 **149.24** Desmoplakin is necessary for regeneration of motoneurons after peripheral nerve injury by organization of a novel cadherin/catenin complex. B. GESS*; D. RÖHR; H. HALFTER; P. YOUNG. *Univ. of Muenster, Dept. of Neurol.*

8:00 S11 **149.25** Brief post-surgical electrical stimulation on digital nerve transection: A double blinded randomized control trial. K. CHAN*; J. N. WONG; J. L. OLSON; M. MORHART. *Univ. Alberta, Univ. Alberta.*

9:00 S12 **149.26** The effect of sera from multifocal motor neuropathy on blood-nerve barrier. F. SHIMIZU*; Y. SANO; N. MASTUI; A. MIYASHIRO; R. KAJI; T. KANDA. *Yamaguchi Univ. Grad., Tokushima Univ. Grad. Sch. of Med.*

POSTER

150. Sensory Disorders: Visual and Auditory

Theme C: Disorders of the Nervous System

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

8:00 S13 **150.01** The anti-fibrogenic and fibrolytic glycoprotein, decorin, reduces trabecular meshwork scarring, ocular hypertension and retinal ganglion cell death in a rat model of glaucoma. A. LOGAN*; L. J. HILL; R. J. BLANCH; B. MEAD; S. FOALE; S. MOHAMED; M. BERRY; R. A. H. SCOTT; W. LEADBEATER. *Univ. Birmingham, Univ. Hosp. Birmingham.*

9:00 S14 **150.02** Hearing loss-induced cortical map reorganization is impaired in a mouse model of fragile X syndrome. B. D. WEINER*; L. S. ZHANG; S. BAO. *Univ. of California, Berkeley, Hebrew Univ.*

10:00 S15 **150.03** White matter abnormalities in congenitally deaf adults: A DTI region of interest and tractography study of superior temporal cortices and Heschl's gyrus. C. M. KARNS*; M. DOW; H. NEVILLE. *Univ. of Oregon, Univ. of Oregon.*

11:00 S16 **150.04** Aldose reductase deficiency protects retinal neurons against oxygen-induced retinopathy. A. C. LO*; Z. FU; S. K. CHUNG. *Dept. of Ophthamology, The Univ. of Hong Kong, The Univ. of Hong Kong.*

8:00 S17 **150.05** ● AUT3, a Kv3 channel modulator, counteracts elevation of spontaneous firing rates in the auditory midbrain following noise trauma. L. L. HESSE; L. A. ANDERSON; C. H. LARGE; R. SCHAETTE*; J. F. LINDEN. *Univ. Col. London, Univ. of Luebeck, Autifony Therapeut. Ltd., Univ. Col. London, Univ. Col. London.*

9:00 S18 **150.06** The nine-banded armadillo: A proposed model organism for achromatopsia and progressive cone dystrophies. C. A. EMERLING*; M. S. SPRINGER. *Univ. of California, Riverside.*

10:00 T1 **150.07** Retinal and cortical contributions to enhanced peripheral visual sensitivity in the deaf. H. A. BASELER*; C. CODINA; D. BUCKLEY; M. HYMERS; G. DE SOUSA. *Univ. of York, Univ. of Sheffield, Univ. of York, Univ. of York.*

11:00 T2 **150.08** Thinking about Seeing: Perceptual sources of knowledge are encoded similarly in the theory of mind brain regions of sighted and blind adults. J. KOSTER-HALE*; M. BEDNY; R. SAXE. *MIT, Johns Hopkins, MIT.*

8:00 T3 **150.09** Hydrogen-saturated saline attenuates high intensity impulse noise-induced hearing loss in guinea pigs. N. YU*; Y. LU; L. CHEN; Q. SUN; S. ZHAI; S. YANG. *The Pla Gen Hosp, The First Affiliated Hosp. of Fujian Med. Univ., The Armed Police Gen. Hosp.*

9:00 T4 **150.10** Characterization of experimental glaucoma retinal proteome in non-human primate eyes. L. CAO; L. WANG; A. ZHOU*. *Morehouse Sch. of Med., Legacy Devers Eye Inst.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 T5 **150.11** Immune mediated retinal ganglion cell death in a glaucoma animal model. S. C. JOACHIM*; S. REINEHR; S. KUEHN; R. NORISTANI; H. B. DICK. *Exptl. Eye Res. Insitute.*

11:00 T6 **150.12** Retinoic acid signaling and retinal ganglion cell survival after optic nerve injury. M. V. DUPREY-DIAZ*; J. M. BLAGBURN; R. E. BLANCO. *Inst. of Neurobio., Univ. of Puerto Rico-Medical Sci. Campus.*

8:00 T7 **150.13** The effects of deafness on peripheral visual attention: An optical imaging study. J. L. SEYMOUR*; M. FABIANI; G. GRATTON; K. A. LOW; E. MACLIN; K. MATHEWSON; M. W. G. DYE. *Univ. of Illinois at Urbana-Champaign.*

9:00 T8 **150.14** Implicit motor learning skills in the deaf individual. J. LÉVESQUE*; J. ROY; S. LANDRY; H. THEORET; F. CHAMPOUX. *Univ. De Montréal, Univ. de Montréal, Univ. de Montréal.*

10:00 T9 **150.15** Protein CCDC66 in retinal degeneration. S. SCHREIBER*; D. A. AKKAD; E. PETRASCH-PARWEZ; J. T. EPPLEN; W. M. GERDING. *Dept. of Human Genetics, Ruhr-University, Dept. of Neuroanatomy and Mol. Brain Res.*

11:00 T10-DP3 **150.16** Sensory specialization in the occipital cortex of early blind humans. L. RENIER*; A. G. DE VOLDER; J. P. RAUSCHECKER. *Univ. Catholique Louvain, Georgetown Univ.*

8:00 T11 **150.17** Visual evoked potentials and hyperbaric oxygen therapy in patients with diabetes mellitus 2 with and without retinopathy. O. H. HERNANDEZ*; C. LIZANA-HENRIQUEZ; R. GARCIA-MARTINEZ; F. YE-EHUAN; L. AGUIRRE-MANZO; G. MALDONADO-VELAZQUEZ. *HOSPITAL GENERAL DE ESPECIALIDADES DR. JAVIER BUENFIL OSORIO, UNIVERSIDAD AUTONOMA DE CAMPECHE, CENTRO ESTATAL DE OFTALMOLOGIA, UNIVERSIDAD AUTONOMA DE CAMPECHE, UNIVERSIDAD AUTONOMA DE CAMPECHE.*

9:00 T12 **150.18** Statistics of cone mosaics in degenerating rat retinas following treatment with AAA and TIMP-1. W. YU*; Y. JI; D. NAIR; W. KAYALI; Y. EOM; F. BRUCE; E. LEE; N. M. GRZYWACZ. *USC, USC, USC, USC.*

10:00 T13 **150.19** Autophagy is a critical pathway in age-related macular degeneration. M. KOKKINAKI; M. ABU-ASAB; A. THEOS; N. GOLESTANEH*. *Georgetown Univ. Med. Ctr., Natl. Inst. of Hlth., Georgetown Univ. Med. Ctr.*

11:00 T14 **150.20** ● Three-dimensional ultrastructure of the optic nerve in the DBA/2J mouse model of glaucoma. S. D. CRISH*; A. ROHOLT; E. K. BENSON; G. J. KIDD; D. M. INMAN. *NEOMED, Renovo Neural, Inc., Lerner Res. Institute, Cleveland Clin.*

8:00 T15 **150.21** A novel mutations in the tecta gene in a chinese family with autosomal dominant nonsyndromic hearing loss. Y. SU*; X. GAO; Y. LU; P. DAI. *The PLA Gen. Hosp.*

9:00 T16 **150.22** ● Loss of retinal ganglion cells, but not photoreceptors, transforms tissue properties of long-range occipital-callosal fibers. S. OGAWA*; Y. MASUDA; H. HORIGUCHI; H. TAKEMURA; M. TERAO; T. HAJI; K. SHIKISHIMA; H. TSUNEOKA; B. A. WANDELL. *Dept. of Psychology, Stanford Univ., The Jikei University, Sch. of Med., Atsugi City Hosp., The Japan Society for the Promotion of Sci., The Univ. of Tokyo, Tamagawa Univ. Brain Sci. Inst.*

10:00 T17 **150.23** Age-related elevation of hyperphosphorylated neurofilament-heavy in the retina and optic nerve of the DBA/2J mouse model of glaucoma. G. N. WILSON*; C. M. DENGLER-CRISH; S. D. CRISH. *Kent State Univ., Northeast Ohio Med. Univ.*

11:00 T18 **150.24** Altered brain structure and connectivity in tinnitus patients. J. P. HAMPSON; A. KAIRYS; E. ICHESCO; P. R. KILENY; R. E. HARRIS*; S. E. SHORE. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

8:00 U1 **150.25** Global motion and form discrimination in deaf and hearing adults and children: Plasticity effects of auditory deprivation and visual language experience since birth. R. G. BOSWORTH*; K. R. DOBKINS. *UCSD.*

9:00 U2 **150.26** Synaptic and epigenetic mechanisms of metabolic memory in diabetic retinopathy. D. R. MASSER*; H. D. VANGUILDER STARKEY; G. BIXLER; W. DUNTON; S. BRONSON; W. M. FREEMAN. *Penn State Col. of Med., Penn State Col. of Med.*

10:00 U3 **150.27** Apelin protects retinal ganglion cells loss in a mouse model of experimental glaucoma. Y. ISHIMARU; A. SUMINO; A. YAMAMURO*; Y. YOSHIOKA; S. MAEDA. *Setsunan Univ.*

11:00 U4 **150.28** The effects of mild versus intense acoustic trauma on spontaneous activity in the inferior colliculus of awake, freely moving rats. S. KENNON-MCGILL*; H. ZHANG; C. NEAL; H. STAECKER; D. DURHAM; T. IMIG. *Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr.*

8:00 U5 **150.29** Down syndrome cell adhesion molecule knockout disrupts mouse visual circuit development. T. J. BURBRIDGE*; A. M. GARRETT; T. L. SPENCER-SALMON; M. R. GRACE; E. STEIN; R. W. BURGESS; M. C. CRAIR. *Yale Univ., The Jackson Lab., Yale Univ.*

9:00 U6 **150.30** ● Enhancement of stem cell integration into the retina by modulating glial reactivity in an in-vitro stem cell transplantation model. A. TASSONI*; B. LORBER; K. R. MARTIN. *Univ. of Cambridge.*

POSTER

151. Schizophrenia and Bipolar Disorder: Animal Models I

Theme C: Disorders of the Nervous System

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

8:00 U7 **151.01** ● Effects of metabotropic glutamate receptor (mGluR2/3) ligands on pre-pulse inhibition of startle response in socially housed and isolation-reared mice. A. KHAN*; A. L. HALBERSTADT; M. A. GEYER; S. B. POWELL. *Univ. of California San Diego, VA San Diego Healthcare Syst.*

9:00 U8 **151.02** Effects of estradiol and chronic haloperidol on locomotor activity and nucleus accumbens dopamine transmission in amphetamine-sensitized female rats. W. SHAMS*; D. MADULARU; W. BRAKE. *Concordia Univ.*

10:00 U9 **151.03** ▲ Compulsive cocaine-seeking in the neonatal ventral hippocampal lesion model of schizophrenia. H. L. PALACOROLLA*; U. GYAWALI; S. E. JARRIN; N. K. SMITH; A. H. BRADY. *St. Mary's Col. of Maryland.*

11:00 U10 **151.04** Repeated NMDA receptor antagonism during adolescence induced long-term alterations in the excitatory-inhibitory balance at the neuronal and synaptic levels. J. LI*; Y. SU; X. WANG; Y. ZHAO; T. SI. *Inst. of Mental Health, Peking Univ.*

8:00 U11 **151.05** Deficient pattern separation and abnormal endocannabinoid-dependent plasticity in NMDAR hypofunction model. J. W. LOVELACE*; P. VIEIRA; C. L. HUGHES; A. BANA; A. HIROTO; K. MACKIE; E. KORZUS. *UC Riverside, Indiana Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 U12 **151.06** Effects of altered glutamatergic signalling during neonatal development and isolation rearing on measures of attentional processing in adult rats. A. L. MARRIOTT*; T. A. DOUCETTE; C. L. RYAN; R. A. TASKER. *Univ. of Prince Edward Island, Univ. of Prince Edward Island, Univ. of Prince Edward Island.*

10:00 U13 **151.07** Development of manic symptoms by sleep deprivation at juvenile age. C. MONPAYS*; A. TREYMEY; J. DESLAURIERS; W. RACINE; K. ASLI; P. SARRET; S. GRIGNON. *Univ. De Sherbrooke, Univ. De Sherbrooke, Univ. de Sherbrooke.*

11:00 U14 **151.08** Withdrawal from repeated haloperidol reduces the efficacy of subsequent novel antipsychotic treatment in the MAM model of schizophrenia. K. M. GILL*; J. M. COOK; M. M. POE; A. A. GRACE. *Univ. Pittsburgh, Univ. of Wisconsin - Milwaukee, Univ. Pittsburgh.*

8:00 U15 **151.09** ● Identification of neurophysiological (EEG) signatures associated with novelty in mouse and man. K. A. RICHARDSON; S. GHORASHI; T. J. WHITFORD; R. P. MEARS; J. M. LEVENSON; E. BUERGER; B. N. BURAN*; D. GERBER; K. M. SPENCER; M. E. LEVIN. *Galenea Corp., Harvard Med. Sch.*

9:00 U16 **151.10** ● Effects of antipsychotics on non-human primate cognition. C. GLAVIS-BLOOM*; H. DAO; H. LANGE; J. MOREAU; J. G. WETTSTEIN; T. M. BALLARD; T. L. WALLACE. *SRI Intl., F. Hoffmann-La Roche.*

10:00 U17 **151.11** Altered levels of FMRP and unchanged FMR2 in a two-hit juvenile model of schizophrenia. S. GRIGNON*; J. DESLAURIERS; C. MONPAYS. *Univ. De Sherbrooke, Univ. de Sherbrooke, universite de Sherbrooke.*

11:00 U18 **151.12** Pharmacological characterization of a potent, selective and orally active phosphodiesterase 10A inhibitor, ME3398 for the treatment of schizophrenia. S. MAEHARA*; N. YUGE; K. ARAKAWA; Y. MATSUI; Y. NAKAGAWA; M. ISHIKAWA; H. NABA; T. NEGISHI; Y. KATO; K. NAKAO; S. FURUSAKO. *Mochida Pharmaceut. Co., Ltd.*

8:00 V1 **151.13** Akt1 deficiency modulates GABAergic transmission and hippocampal-dependent cognitive functions in mice. C. CHANG*; Y. CHEN; W. LAI. *Natl. Taiwan Univ., Grad. Inst. of Brain and Mind Sciences, Natl. Taiwan Univ., Neurobio. and Cognitive Sci. Center, Natl. Taiwan Univ.*

9:00 V2 **151.14** Cognitive flexibility deficits and reduced frontal cortex BDNF expression in a rat model of mania. M. E. RAGOZZINO*; Y. DWIVEDI; M. PAVULURI; H. ZHANG; G. GROSPE; A. ARYA. *Univ. Illinois Chicago, Univ. Illinois Chicago, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago.*

10:00 V3 **151.15** Dysregulation of BDNF-MAPK signaling pathway in the hippocampus of mice with “immature dentate gyrus”. H. KOSHIMIZU*; K. OHIRA; H. HAGIHARA; K. TAKAO; T. TAKAGI; M. KATAOKA; S. ISHII; M. TAKAHASHI; T. MIYAKAWA. *ICMS, Fujita Hlth. Univ., CREST, JST, Ctr. for Gene. Anal. of Behav., NIPS, Lab. of Mol. Genet., RIKEN, Instit. for Dev. Res., Aichi Pref. Colony, Dept. of Envr. Sci. and Tech., Fac. of Eng., Shinshu Univ., Dept. of Biochem., Kitasato Univ. Sch. of Med.*

11:00 V4 **151.16** Neuronal dematuration induced by antidepressant treatment in medial frontal cortex of adult mice. K. OHIRA*; R. TAKEUCHI; T. MIYAKAWA. *Fujita Hlth. Univ.*

8:00 V5 **151.17** Decreased parvalbumin immunoreactivity and altered perineuronal net labeling in the frontal cortex of schizophrenia model mice. H. HAGIHARA*; T. TAKAGI; S. ISHII; I. A. GRAEF; C. R. GERALD; T. MIYAKAWA. *Fujita Hlth. Univ., CREST, JST, RIKEN, Aichi Human Service Ctr., Stanford Univ. Sch. of Mediceine, Natl. Inst. for Physiological Sci.*

9:00 V6 **151.18** Selective reduction of glutaminase in dopamine neurons leads to reduced susceptibility to amphetamine sensitization: Relevance to schizophrenia resilience. S. MINGOTE*; N. CHUHMA; Y. WANG; A. MIHALI; C. GELLMAN; I. ZUCKER-SCHARFF; C. SFERRAZZA; B. C. FIELD; B. P. INBAR; K. KRUEGER; H. MOORE; I. GAISLER-SALOMON; S. RAYPORT. *Columbia University/New York State Psychiatric Inst., Columbia University/New York State Psychiatric Inst., Haifa Univ.*

10:00 V7 **151.19** Neurophysiological phenotypes of acute and chronic NMDA receptor antagonist exposure in awake-behaving rats. E. M. SULLIVAN*; P. T. TIMI; L. E. HONG; P. O’DONNELL. *Univ. of Maryland Baltimore, Univ. of Maryland.*

11:00 V8 **151.20** Behavioral and pharmacological characterization of the mouse resident-intruder test as a model for aggression in neuropsychiatric disorders. V. ANGLADE*; E. CAYRE; D. PARACHOU; W. SPOOREN; C. DRIEU LA ROCHELLE; B. BIEMANS. *Biotrial Pharmacol., Biotrial Pharmacol., F. Hoffmann-Laroche Ltd.*

8:00 V9 **151.21** Exploration of the interplay of Ank3 with CACNA1C indicates potential pathogenic pathway for psychiatric diseases. S. ZHU*; T. KIM; J. KIM; X. WANG; V. BENNETT; S. BROWN; M. PLETNIKOV; C. A. ROSS. *JHU, Sch. of Med., Johns Hopkins Univ., Johns Hopkins Univ., JHU, Sch. of Med., Duke Univ.*

9:00 V10 **151.22** The effects of Toxoplasma gondii infection on behavior in Nurr1-null heterozygous mice. J. B. EELLS*; A. VARELA-STOKES; S. X. GUO-ROSS; D. S. LINDSAY. *Mississippi St Univ., Virginia Tech.*

10:00 V11 **151.23** Extracellular signal-regulated kinase (ERK)-5 signaling and suicidal behavior. H. ZHANG*; R. C. ROBERTS; R. CONLEY; G. N. PANDEY; Y. DWIVEDI. *Univ. Illinois at Chicago, Univ. of Alabama at Birmingham, Maryland Psychiatric Res. Ctr.*

11:00 V12 **151.24** Distinct effects of lithium chloride and clozapine in preventing suicide-related behaviors in a two-hit model of schizophrenia. J. DESLAURIERS*; K. BELLEVILLE; N. BEAUDET; P. SARRET; S. GRIGNON. *Univ. de Sherbrooke, Univ. de Sherbrooke.*

8:00 W1 **151.25** ▲ Oxidative stress markers in pituitary suicidal people. E. BALTAZAR-GAYTAN*; F. GARCÍA - DOLORES; P. AGUILAR-ALONSO; E. BRAMBILA - COLOMBRES; R. A. VAZQUEZ - ROQUE; N. MACEDA - MARTÍNEZ; C. CASTRO - FLORES; M. A. MACIAS - DUVIGNAU; J. MACIAS - DUVIGNAU; S. POMPEYO - MACARIO; L. GARCES - RAMIREZ; S. R. ZAMUDIO - HERNÁNDEZ; F. DE LA CRUZ - LOPEZ; G. FLORES. *Benemerita Univ. Autonoma de Puebla, Inst. Politécnico Nacional, Univ. Popular Autónoma de Veracruz, Hosp. Regional 18 de Octubre ISSSTE, Benemérita Univ. Autonoma de Puebla, Univ. Veracruzana, Procuraduría Gen. de Justicia, Inst. Politécnico Nacional, Hosp. San Angel Inn, Inst. de Investigaciones Forenses.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

152. Novel Targets for Psychiatric Disorders: Pre-Clinical Studies

Theme C: Disorders of the Nervous System

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

8:00 W2 **152.01** ● Discovery and characterization of selective TAAR1 agonists as potential therapeutic drugs in the field of mental illness. M. C. HOENER*; A. HARMEIER; R. D. NORCROSS; T. L. WALLACE; C. RISTERUCCI; J. MOREAU; J. G. WETTSTEIN. *F. Hoffmann-La Roche Ltd, SRI Intl.*

9:00 W3 **152.02** Trace amine-associated receptor 1 (TAAR1) and dopamine D2 receptor (D2R) heteromerization results in biased signaling. A. HARMEIER*; V. METZLER; D. BUCHY; S. CHABOZ; J. G. WETTSTEIN; B. BETTLER; M. C. HOENER. *F. Hoffmann-La Roche, Pharmazentrum, Univ. of Basel.*

10:00 W4 **152.03** Novel CaM kinase II activator, ST101 improves the cognition in Schizophrenia model rats. Y. YABUKI; M. MORIOKA*; K. FUKUNAGA. *Tohoku Univ. Grad Sch. Pharm Sci., Kurume Med. Sch.*

11:00 W5 **152.04** ● Evidence that oxytocin acts as an endogenous antipsychotic. P. D. SHILLING*; G. MELENDEZ; D. FEIFEL. *Univ. of California San Diego.*

8:00 W6 **152.05** ● PDE11A negatively regulates lithium responsivity in mice. M. P. KELLY*; A. J. HARTMAN. *Univ. of South Carolina Sch. of Med., Univ. of South Carolina Sch. of Med.*

9:00 W7 **152.06** Genetic restoration of Sp4 gene in excitatory neurons reverses deficit in recall of fear extinction. B. JI*; M. KIM; K. HIGA; V. RISBROUGH; M. GEYER; X. ZHOU. *UCSD, VA San Diego Healthcare Syst.*

10:00 W8 **152.07** An Alpha7 agonist (EVP6124) improves mismatch negativity to pitch in neonatal PCP treated rat. S. V. DIGAVALLI*; P. CHEN; Y. YANG; A. EASTON; K. JONES; Y. BENITEX; I. MCDONALD; R. OLSON; L. BRISTOW; E. SCHAEFFER; M. AHLIJANIAN. *Bristol Myers Squibb Co., Bristol Myers Squibb Co., Bristol Myers Squibb Co.*

11:00 W9 **152.08** ● AMG 747, a novel glycine transporter type-1 (GlyT1) inhibitor with cognition-enhancing and antipsychotic-like effects in preclinical rodent models of schizophrenia. J. TREANOR; H. CHEN; O. MURPHY; M. CUEVA; J. DANAO; C. DIAS; C. ILCH; K. TABORN; A. AMEGADZIE; S. RAO; N. GAVVA; A. RASSOULPOUR; M. GIORGETTI; D. REID; S. CHEN; J. ALLEN; J. CHEN; W. QIAN; T. J. KORNECOOK*. *Amgen, Amgen, Amgen, Brains On-Line LLC, Covance.*

8:00 W10 **152.09** Involvement of strychnine-sensitive glycine receptor in anxiolytic effects of GlyT1 inhibitors in maternal separation-induced ultrasonic vocalization of rat pups. H. KOMATSU*; Y. FURUYA. *Eisai Co., Ltd.*

9:00 W11 **152.10** ● Genetic deletion and pharmacological inhibition of PDE10a protects mice from diet-induced obesity and insulin resistance. S. M. SMITH*; A. NAWROCKI; C. RODRIGUEZ; D. TOOLAN; O. PRICE; M. HENRY; G. FORREST; D. SZETO; C. KEOHANE; Y. PAN; I. RAHEEM; C. COX; J. HWA; J. RENGER. *Merck & Co., Inc., Merck & Co., Inc.*

10:00 W12 **152.11** ● Cariprazine delays ouabain-evoked epileptiform spikes and loss of activity in rat hippocampal slices. R. S. PAYNE*; Y. GAO; Z. LEI; A. SCHURR; N. ADHAM; R. EL-MALLAKH. *Kentucky Wesleyan Col., Univ. of Louisville, Univ. of Louisville, Univ. of Louisville, Forest Res. Inst.*

11:00 W13 **152.12** A $GABA_A$ α2/3 partial agonist TPA023 enhances sensorimotor gating in prepulse inhibition in DBA/2 mice. Y. FURUYA*; T. TERAUCHI. *Eisai Co., Ltd.*

8:00 W14 **152.13** ● An interactome analysis of the striatal Phosphodiesterase 10 A (PDE10A) reveals novel insights in the regulation of GPCR signaling. J. P. SCHUELKE*; M. POPIOLEK; L. MCALLISTER; J. PANDIT; T. A. CHAPPIE; D. S. JOHNSON; P. R. VERHOEST; K. F. GEOGHEGAN; N. J. BRANDON; C. J. SCHMIDT. *Pfizer Neurosci., Pfizer, Pfizer, Pfizer, AstraZeneca.*

9:00 W15 **152.14** NPAS3: New genetic and biological findings with implications for protein aggregation and schizophrenia. L. G. NUCIFORA; L. YU; N. ARBEZ; E. ROBY; D. WEI; G. L. SELL; L. E. DELISI; C. A. ROSS; R. L. MARGOLIS; F. C. NUCIFORA*. *Johns Hopkins Sch. Med., Veterans Affairs, Boston Healthcare System, Harvard Med. Sch.*

10:00 W16 **152.15** Lithium stimulates chemokine production in monocytic cells via GSK-3 inhibition. Z. YU*; C. ONO; S. AIBA; I. SORA; H. TOMITA. *Tohoku Univ., Tohoku university, Kobe university.*

11:00 W17 **152.16** High leucine and lysine diet shows additive effects on suppression of kynurenic acid production in rat brain. T. FUKUWATARI*; A. SEKINE; S. HIGASHIYAMA; M. SANO; K. SHIBATA. *Univ. Shiga Pref.*

8:00 W18 **152.17** Neuregulin-1 treatment affects GABA and glutamate release after PCP co-treatment in freely moving mice. M. ENGEL*; A. JENNER; X. HUANG; E. FRANK. *Illawarra Hlth. and Med. Res. Inst., Schizophrenia Res. Inst.*

9:00 X1 **152.18** D2 receptor partial agonist 2-bromoterguride antagonizes amphetamine-induced locomotion and shows negligible cataleptic properties. J. BROSDA*; R. T. FRANKE; H. H. PERTZ; H. FINK. *FU Berlin, FU Berlin.*

10:00 X2 **152.19** ● Evidence for muscarinic M4 receptor mediated inhibition on the influence of antipsychotic-like behavioral effects of haloperidol and the phosphodiesterase 10 inhibitor MP10 in rats. P. STOLYAR*; S. J. SUKOFF RIZZO; T. CHAPPIE; C. J. SCHMIDT. *Pfizer Inc., Pfizer Inc.*

11:00 X3 **152.20** ● Differential effects of scyllo-inositol (ELND005) and clozapine on cortical immediate early gene expression in a rat model of PCP-induced social withdrawal. P. J. SHUGHRUE*; A. WHALEN; K. QUINN; S. ABUSHAKRA; G. KINNEY. *Prothena BioSciences, Elan Pharmaceuticals.*

8:00 X4 **152.21** ● AG-0098, a combined D_2 and H_3 receptor antagonist: Pharmacological characterisation. S. HOGG*; M. HEINS; U. DIJKMAN; A. HEERES; M. DROGE; I. VEINBERGS; A. C. MCCREARY. *Angita Pharmaceuticals, Brains On-Line, Syncom, ABL, Brains On-Line.*

9:00 X5 **152.22** Therapeutic potential of use-dependent inhibitor of NMDA receptor 3α5β pregnanolone glutamate. L. RAMBOUSEK*; K. VALES; L. KLETECKOVA; A. KUBESOVA; H. CHODOUNSKA; L. VYKLICKY, Jr. *Inst. of Physiol. AS CR, v.v.i., Charles University, 2nd Fac. of Med., Prague Psychiatric Ctr., Inst. of Organic Chem. and Biochem. AS CR, v.v.i.*

10:00 X6 **152.23** ▲ Dopamine D3, but not D2, receptors correlate with haloperidol-induced tardive dyskinesia in non-human primates. S. MAHMOUDI; D. LEVESQUE*; P. J. BLANCHET. *Univ. of Montreal, Fac. of Pharm., Univ. of Montreal, Univ. of Montreal.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 X7 **152.24** Atomoxetine and methylphenidate have different effects on several prepulse inhibition deficit mice models. H. WOO*; S. PARK; H. LEE; G. KWON; Y. AHN; Q. GAO; J. CHEONG; J. RYU. *Kyung Hee Univ., Sahmyook university, Sahmyook Univ., Kyung Hee Univ.*

8:00 X8 **152.25** ● Sensorimotor gating predicts sensitivity to pro-attentional effects of amphetamine in healthy adults. N. R. SWERDLOW*; S. G. BHAKTA; J. A. TALLEDO; S. N. LAMB; B. BALVANEDA; B. K. RANA; H. CHOU. *UCSD Sch. of Medicine, Dept of Psychiatry, VA San Diego Healthcare Syst.*

9:00 X9 **152.26** The novel metabolic regulator FGF-21 is dramatically elevated in neurons by co-treatment with the mood stabilizers and has a robust neuroprotective role. Y. LENG*; Z. WANG; L. TSAI; P. LEEDS; E. FESSLER; D. CHUANG. *Natl. Inst. Mental Health/NIH.*

POSTER

153. Mood Disorders: Human Postmortem Studies

Theme C: Disorders of the Nervous System

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

8:00 X10 **153.01** MicroRNA alterations in the mediodorsal thalamus in depression and schizophrenia. D. P. CARTER*; E. S. CARTER; K. A. YOUNG. *Texas A&M Hlth. Sci. Center/ Central Texas VA, Texas A&M Hlth. Sci. Ctr. Col. of Med.*

9:00 X11 **153.02** Distribution and expression of neuropeptide processing enzymes in the postmortem human hippocampus. M. WASELUS*; D. N. LOVAY; A. MEDINA; S. BURKE; W. E. BUNNEY; R. M. MYERS; A. F. SCHATZBERG; J. D. BARCHAS; H. AKIL; S. J. WATSON. *Univ. of Michigan, Univ. of California, HudsonAlpha Inst. for Biotech., Stanford Univ., Weill Cornell Med. Col.*

10:00 X12 **153.03** Gene expression changes in the human amygdalar sub-nuclei in major depressive disorder. V. SHARMA*; S. CHAUDHURY; R. THOMPSON; R. M. MYERS; A. F. SCHATZBERG; J. D. BARCHAS; W. E. BUNNEY; H. AKIL; S. J. WATSON. *Univ. of Michigan, HudsonAlpha Inst. for Biotech., Stanford Univ. Sch. of Med., Weil Cornell Med. Col., Univ. of California Irvine.*

11:00 X13 **153.04** Expression of galanin and its three receptors in the human brain: With a note on depression. S. S. BARDE*; E. LE MAITRE; M. PALKOVITS; R. DIAZ-HEIJTZ; T. HOKFELT. *Karolinska Institutet, Neuromorphological and Neuroendocrine research laboratory of the Semmelweis Univ. and the Hungarian Acad. of Sci.*

8:00 X14 **153.05** NRG1-ErbB signaling in affective regulation and antidepressant efficacy in suicide and depression. I. MAHAR*; B. LABONTE; J. P. LOPEZ; G. TURECKI; N. MECHAWAR. *Douglas Mental Hlth. Univ. Inst., McGill Univ., McGill Univ., McGill Univ.*

9:00 X15 **153.06** Analysis of corticotropin-releasing hormone and tyrosine hydroxylase in the paraventricular and supraoptic hypothalamic nuclei of human depressed subjects. D. M. KROLEWSKI*; A. MEDINA; W. BUNNEY; R. MYERS; J. BARCHAS; A. SCHATZBERG; H. AKIL; S. WATSON. *Univ. of Michigan, Univ. of Michigan, Univ. of California, Hudson Alpha Inst., Cornell Univ., Stanford Univ.*

10:00 X16 **153.07** Up-regulation of the density of adenosine A1 and A2A receptors in the prefrontal cortex from postmortem tissue of suicide completers. P. M. CANAS*; B. S. DA SILVA; R. A. CUNHA. *Ctr. For Neurosci. and Cell Biol., Natl. Inst. of Legal Med. and Forensic Sci. (INMLCF, I.P.), Ctr. For Neurosci. and Cell Biol. and Univ. of Coimbra.*

11:00 X17 **153.08** Characterizing a genomic map of 5-hydroxymethylcytosine in human brain through next-generation sequencing. J. GROSS*; A. DIALLO; C. ERNST; G. TURECKI. *McGill Group For Suicide Studies.*

8:00 X18 **153.09** Association of polymorphism 5-HTTLPR short allele with suicide in Yucatan Mexico. H. A. RUBIO-ZAPATA*; D. F. ESTRELLA-CASTILLO; C. M. ROCHE-CANTO; P. AGUILAR-ALONSO. *Facultad De Medicina-UADY, Gobierno del estado de Yucatan, Benemerita Univ. Autonoma de Puebla.*

9:00 Y1 **153.10** Increased doublecortin expression in the subventricular zone and olfactory bulb of unmedicated depressed suicides. M. E. MAHEU*; J. DEVORAK; M. DAVOLI; G. TURECKI; N. MECHAWAR. *Douglas Mental Hlth. Univ. Inst.*

POSTER

154. Alcohol: Developmental Effects

Theme C: Disorders of the Nervous System

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

8:00 Y2 **154.01** Preventive effect of a 5-$HT_{2A/2C}$ receptor agonist on the reduction of serotonergic neurons induced by prenatal exposure to ethanol in rats. T. ISHIGURO*; H. SAKATA-HAGA; Y. FUKUI. *Univ. of Tokushima Grad. Sch.*

9:00 Y3 **154.02** ▲ The effects of vitamin D on stress in rats exposed to alcohol during development. A. NGO*; M. SULLIVAN; E. ISSLER; J. THOMAS; N. IDRUS. *San Diego State Univ.*

10:00 Y4 **154.03** ● Effects of alcohol exposure on Malat1 expression in neural stem cells. E. THOM*; R. R. HOLGATE; R. C. MIRANDA. *Texas A&M Univ., Texas A&M Hlth. Sci. Ctr.*

11:00 Y5 **154.04** Acute alcohol exposure in developing rodent brain causes apoptosis-dependent transient activation of microglia which in turn clear the apoptotic neurons by phagocytosis. K. AHLERS*; B. KARACAY; D. J. BONTHIUS; M. E. DAILEY. *Univ. of Iowa, Carver Col. of Medicine, Univ. of Iowa.*

8:00 Y6 **154.05** Alterations in nucleus accumbens structure, function, and related behavior after ethanol consumption in adult fetal ethanol-exposed rats. J. P. RICE*; C. W. BIRD; S. DAVIES; D. D. SAVAGE; D. A. HAMILTON. *Univ. New Mexico, Univ. of New Mexico, Univ. of New Mexico, Univ. of New Mexico.*

9:00 Y7 **154.06** Gestational ethanol exposure causes dynamic changes in fast-spiking interneuron to medium spiny neuron synapses of the dorsal striatum in the adult mouse. V. C. CUZON CARLSON*; D. M. LOVINGER. *NIH/ NIAAA, NIH/NIAAA.*

10:00 Y8 **154.07** Strain differences in ethanol-induced cell death examined in BXD embryos and neonates. D. GOLDOWITZ*; J. BOYLE; K. WONG; S. LATTIMER; M. KOBOR; A. LUSSIER; K. HAMRE. *Ctr. for Mol. Med. & Ther., Univ. Tennessee Hlth. Sci. Ctr.*

11:00 Y9 **154.08** Neuroanatomical phenotypes in a CD-1 mouse model of FASD. C. W. ABBOTT*, III; K. J. HUFFMAN. *UCR, Univ. of California Riverside.*

8:00 Y10 **154.09** Altered NMDA receptor subunit expression may contribute to forebrain-dependent learning & memory deficits in a rat model of fetal alcohol spectrum disorder. M. J. GOODFELLOW*; D. H. LINDQUIST. *The Ohio State Univ.*

9:00 Z1 **154.10** Ethanol impairs synaptamide-mediated neural stem cells differentiation. M.; H. KIM. *NIAAA, NIH.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 Z2 **154.11** Neonatal ethanol exposure affects the phosphorylation of the BDNF receptor, TrkB, in wild type and adenylyl cyclase 1/8 knockout mice. L. SUSICK*; J. L. LOWING; S. M. HOOL; A. C. CONTI. *Wayne State Univ. Sch. of Med., John D. Dingell VA Med. Ctr.*

11:00 Z3 **154.12** Binge ethanol exposure during pregnancy reduces Nfia gene expression in the developing fetus. K. JUNG; S. KANG; M. CHOI; K. PARK; H. LEE; Y. CHAI*. *Hanyang Univ.*

8:00 Z4 **154.13** The effects of moderate prenatal ethanol exposure on resting state networks and functional connectivity of the anesthetized rat brain. C. I. RODRIGUEZ*; S. DAVIES; V. CALHOUN; D. D. SAVAGE; D. A. HAMILTON. *The Univ. of New Mexico, The Univ. of New Mexico, The Univ. of New Mexico, The Mind Res. Network.*

9:00 Z5 **154.14** 3rd trimester-equivalent ethanol exposure impairs dopamine d1 receptor and d3 receptor modulation of local gabaergic transmission in the basolateral amygdala. M. R. DIAZ*; R. A. MORTON; C. F. VALENZUELA. *Univ. of New Mexico.*

10:00 Z6 **154.15** ▲ Stereological analyses of cerebellar purkinje cells following vitamin d administration in a rodent model of fetal alcohol spectrum disorders. P. R. SILVA*; J. THOMAS; N. IDRUS. *San Diego State Univ., San Diego State Univ.*

11:00 Z7 **154.16** Chronic, but not acute, choline administration mitigates learning impairments caused by neonatal alcohol exposure. R. D. RISBUD*; K. J. MORANTON; J. P. HAPPER; N. J. MURAWSKI; N. M. IDRUS; J. D. THOMAS. *San Diego State Univ.*

8:00 Z8 **154.17** Male offspring of sires exposed to ethanol demonstrate alterations in ethanol sensitivity and drinking behavior. A. FINEGERSH*; G. E. HOMANICS. *Univ. of Pittsburgh.*

9:00 Z9 **154.18** Locomotor hyperactivity induced by early ethanol exposure depends on the time of the day in which mice are tested. K. ROSA*; D. P. BRANCO; M. J. S. PEREIRA; A. C. MANHAES; Y. A. VILLAÇA; C. C. FILGUEIRAS. *Univ. Do Estado Do Rio De Janeiro.*

10:00 Z10 **154.19** Moderate fetal ethanol exposure alters BDNF mRNA isoform expression in the dentate gyrus. C. W. BIRD*; S. DAVIES; N. PERRONE-BIZZOZERO; D. SAVAGE; D. HAMILTON. *Univ. New Mexico.*

11:00 Z11 **154.20** Prenatal alcohol exposure enhances T-type calcium channel current density in neonatal inferior colliculus neurons. P. N'GOUEMO*; D. M. LOVINGER. *GEORGETOWN UNIVERSITY MEDICAL CENTER, NIAAA.*

8:00 Z12 **154.21** ▲ A novel bioassay predicts cholic acid efficacy against ethanol exposure in the embryonic zebrafish (Danio rerio) fetal alcohol syndrome model. S. A. COLLETON; L. A. BECKER*; J. A. MARRS; C. A. COLLETON; C. LAWRENCE; C. CURTIS; K. MALONEY. *Univ. of Evansville, Indiana University-Purdue Univ. Indianapolis, Bristol-Meyers Squibb Co., Boston Children's Hosp.*

9:00 Z13 **154.22** Effect of binge-like alcohol exposure on nervous system development and behavior in Zebrafish. J. M. FRAZIER; C. ZHANG; A. OLIVERI; J. BAILEY; S. MACKINNON; E. D. LEVIN; G. J. COLE*. *North Carolina Central Univ., Duke Univ.*

POSTER

155. Neurophysiology, Neurochemistry, and Neuroimaging

Theme C: Disorders of the Nervous System

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

8:00 Z14 **155.01** Alcohol breaks down catecholamine balance in the mPFC of rats. T. SHNITKO*; L. KENNERLY; D. ROBINSON. *Univ. of North Carolina At Chapel Hill.*

9:00 Z15 **155.02** Ethanol enhancement of GABA release in the central nucleus of the amygdala is mediated by calcium channels. F. P. VARODAYAN*; M. ROBERTO. *The Scripps Res. Inst.*

10:00 Z16 **155.03** Comparison of the actions of toluene and ethanol on dopaminergic neurons of the ventral tegmental area. S. NIMITVILAI*; D. ARORA; M. MCELVAIN; M. BRODIE; J. WOODWARD. *Med. Univ. of South Carolina, Univ. of Illinois at Chicago.*

11:00 Z17 **155.04** Ethanol-induced Krüppel-like Factor 11 (KLF11) increases pro-apoptotic signaling and cell death in human neuronal cells. J. W. DUNCAN*; S. JOHNSON; S. HARRIS; X. OU. *Univ. of Mississippi Med. Ctr.*

8:00 Z18 **155.05** Structural requirements in the intracellular loop domains of glycine and GABAA receptors for allosteric modulation by ethanol and G-protein. C. F. BURGOS*; P. A. CASTRO; T. MARIQUEO; J. SEPÚLVEDA; J. L. GUZMAN; L. G. AGUAYO. *Univ. of Concepcion.*

9:00 AA1 **155.06** Inhibition of the ethanol-induced potentiation of glycine receptor by small peptides and molecules that interfere with Gβγ binding. L. S. SAN MARTIN*; F. E. CERDA; A. A. SANCHEZ; C. JIN; L. G. AGUAYO; J. L. GUZMAN. *Univ. De Concepcion, Univ. De Concepcion, Res. Triangle Inst.*

10:00 AA2 **155.07** Effects of ethanol on glycinergic currents in C57BL/6J mouse spinal neurons. T. MARIQUEO*; B. MUÑOZ; L. SAN MARTIN; A. AGURTO; C. CORONADO; C. F. BURGOS; A. SANCHEZ; G. E. HOMANICS; L. G. AGUAYO. *Univ. of Concepcion, Univ. of Pittsburgh.*

11:00 AA3 **155.08** Acute effect of ethanol on synaptic transmission in the molecular layer of the rat cerebellum: An intrinsic fluorescence flavoprotein imaging study. K. JOTTY; C. F. VALENZUELA*. *Univ. New Mexico HSC.*

8:00 AA4-DP4 **155.09** ● Fast, high-resolution biosensor measurements of ethanol-induced neurotransmitter dynamics in the rat brain. D. V. AILLON; E. NAYLOR*; B. S. BARRETT; D. V. GWARTNEY; S. GABBERT; D. A. JOHNSON; P. A. PETILLO. *Pinnacle Technol.*

9:00 AA5 **155.10** Activin modulates the effects of alcohol on GABAergic inhibition. J. F. VAN BREDERODE*; F. ZHENG; C. ALZHEIMER. *Univ. Washington, Univ. of Erlangen-Nürnberg.*

10:00 AA6 **155.11** Alterations in ethanol-induced accumbal transmission after acute and long-term zinc depletion. J. E. MORUD*; L. ADERMARK; M. ERICSON; B. SÖDERPALM. *Inst. For Neurosci. and Physiol.*

11:00 AA7 **155.12** Strychnine pretreatment influence the dopamine elevating properties of ethanol, nicotine and THC. M. ERICSON*; S. JONSSON; B. SÖDERPALM. *Neurosci. and Physiol., Neurosci. and Physiol.*

8:00 AA8 **155.13** Ethanol on the firing properties of cerebellar Purkinje Cells: Under urethane anesthesia and in freely moving rats. J. HUANG*; R. X. LEE; Y. ZHUANG; C. YEN; H. TSAO; R. CHEN; C. HUANG; M. TSAI. *Grad. Inst. of Electronics Engin., Inst. of Zoology, Natl. Taiwan Univ., Dept. of Biomechatronic Engineering, Natl. Ilan Univ., Dept. of Life Science, Natl. Taiwan Univ., Univ. of Missouri Kansas-City.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 AA9 **155.14** Quantitative EEG and cognitive performance in health sciences students with hazardous alcohol consumption. L. NUÑEZ-JARAMILLO*; J. V. REYES-LOPEZ; E. SANTIAGO-RODRÍGUEZ; W. V. HERRERA-MORALES; L. RAMÍREZ-LUGO; P. VEGA-PERERA. *División De Ciencias De La Salud. Univ. De Quintana Roo, Inst. Nacional de Psiquiatría, Neuroclin: Diagnóstico, Tratamiento e Investigación Neurológica, S.C., División de Neurociencias. Inst. de Fisiología Celular. UNAM.*

10:00 AA10 **155.15** Diffusion tensor imaging detects callosal fiber integrity change over a 1-year follow-up in chronic alcoholics who maintained sobriety. E. M. MULLER-OEHRING*; A. PFEFFERBAUM; E. V. SULLIVAN; T. ROHLFING; T. SCHULTE. *Stanford Univ. Sch. of Med., SRI Intl.*

11:00 AA11 **155.16** Translational neuroimaging in alcoholism (TRANSALC): Identification of altered brain connectivity and treatment efficacy predictors. W. H. SOMMER*; K. MANN; S. M. DURSUN; P. HYYTIÄ; S. CANALS; M. BROWN; F. DE LA CRUZ; M. DUDEK; A. GREENSHAW; D. HERMANN; M. W. MEINHARDT; A. MORENO; V. PALLARÉS; S. VOLLSTÄDT-KLEIN; W. WEBER-FAHR. *Univ. of Heidelberg, Univ. of Heidelberg, Univ. of Alberta, Univ. of Helsinki, CSIC-UMH, Univ. of Heidelberg.*

8:00 AA12 **155.17** Automatic biases for alcohol cues in alcohol addiction; common and distinct underlying neural mechanisms. C. E. WIERS*; C. STELZEL; H. WALTER; F. BERMPOHL. *Berlin Sch. of Mind and Brain, Humboldt-Universität zu Berlin, Charité – Universitätsmedizin Berlin, Charité – Universitätsmedizin Berlin, Humboldt Univ. Berlin.*

9:00 AA13 **155.18** Structural and functional MRI correlates of problem drinking. C. B. FORTIER*; E. C. LERITZ; E. LINDEMER; J. FONDA; A. L. MAKSIMOVSKIY; W. P. MILBERG; D. H. SALAT; R. E. MCGLINCHEY. *VA Boston Healthcare Syst, Harvard Med. Sch., VA Boston Healthcare Syst. Neuroimaging Res. for Veterans Ctr., The Anthinoula A. Martinos Ctr. For Biomed. Imaging, Brigham & Women's Hosp.*

POSTER

156. Drugs of Abuse: Developmental Effects

Theme C: Disorders of the Nervous System

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

8:00 AA14 **156.01** ▲ Memantine-induced conditioned taste aversion in adolescent and adult rats. S. L. OVIEDO RAMIREZ*; A. ROCHA; K. A. TRUJILLO. *California State Univ. San Marcos.*

9:00 AA15 **156.02** ▲ Adolescent and adult rats differ in methamphetamine-induced ultrasonic vocalizations and locomotor behavior. C. G. GONZALEZ*; V. ESPINOZA; K. A. TRUJILLO. *California State Univ. San Marcos.*

10:00 AA16 **156.03** Sensitization to phencyclidine: Effects of repeated bouts beginning in adolescence. C. Y. HELLER*; M. ESCOBAR-KLUMPH; K. A. TRUJILLO. *California State Univ. San Marcos, Med. Col. of Wisconsin.*

11:00 AA17 **156.04** Methamphetamine-induced ultrasonic vocalizations in rats. A. M. GOCHEZ*; K. A. TRUJILLO. *California State Univ. San Marcos.*

8:00 AA18 **156.05** Effects of adolescent amphetamine exposure on dopamine circuitry and behavior in mice. L. M. REYNOLDS*; S. YOGENDRAN; C. ENG; C. FLORES. *McGill Univ., McGill Univ.*

9:00 BB1 **156.06** Ethanol attenuates cocaine place preferences in adult but not adolescent male rats. A. R. URUENA*; C. L. KIRSTEIN. *Univ. of South Florida, Univ. of South Florida.*

10:00 BB2 **156.07** Effects of prenatal cocaine exposure on rodent brain structure and diffusion properties. M. S. MCMURRAY; I. OGUZ; A. M. RUMPLE; B. PANIAQUA; J. M. LAUDER; M. STYNER; J. M. JOHNS*, Ph.D. *UIC, Univ. North Carolina, Univ. North Carolina, Univ. North Carolina, Univ. North Carolina, Univ. North Carolina.*

11:00 BB3 **156.08** Periconceptional cocaine exposure alters the psychomotor response to cocaine and regulation of the dopamine D1 receptor in adult male offspring. A. SASAKI*; A. CONSTANTINOF; F. KHATTAK; P. PAN; D. A. KUPFERSCHMIDT; P. O. MCGOWAN; S. ERB. *Univ. of Toronto, Univ. of Toronto.*

8:00 BB4 **156.09** Effects of methamphetamine in prenatally buprenorphine-exposed offspring at their adulthood: A behavioral and biochemical study. Y. CHIANG*; I. HO. *China Med. Univ. Hosp., China Med. Univ., Natl. Hlth. Res. Inst.*

9:00 BB5 **156.10** Adolescent caffeine consumption enhances cocaine sensitivity and reward and produces neurobiological alterations in protein expression in the nucleus accumbens. C. E. O'NEILL*; S. C. LEVIS; S. CROSS; K. D. BROWN; R. K. BACHTELL. *Univ. of Colorado, Univ. of Colorado.*

10:00 BB6 **156.11** Differences between adolescent and adult rats in the acute and chronic behavioral effects of dissociatives. A. ROCHA*; K. A. TRUJILLO. *California State Univ. San Marcos.*

11:00 BB7 **156.12** ▲ How does activity-based anorexia affect male rat behavior and hippocampal CA1 pyramidal cells differently than females during adolescence? M. B. RIOS*; A. SHUSTER; T. CHOWDHURY; N. C. BARBARICH-MARSTELLER; C. AOKI. *New York Univ., Col. of Physicians and Surgeons of Columbia Univ., New York State Psychiatric Inst.*

8:00 BB8 **156.13** Locomotor sensitization to a low dose of ketamine that causes locomotor depression. M. CALDERWOOD*; M. L. S. BATES; K. A. TRUJILLO. *California State Univ. San Marcos, Texas A&M Univ.*

9:00 BB9 **156.14** Female adolescent morphine exposure affects morphine reward in subsequent offspring. F. M. VASSOLER*; E. M. BYRNES. *Tufts Univ. Cummings Sch. of Vet. Med.*

10:00 BB10 **156.15** Effects of the designer drug methylenedioxypyrovalerone (MDPV) on the developing brain. A. ADAM*; L. GERECSEI; N. LEPESI; A. CSILLAG. *Semmelweis Univ.*

11:00 BB11 **156.16** Activity-based anorexia impedes normal hippocampal development during adolescence in female rats. T. G. CHOWDHURY*; T. E. CHAN; J. WANG; N. C. BARBARICH-MARSTELLER; C. AOKI. *NYU Ctr. For Neural Sci., Columbia Univ.*

8:00 BB12 **156.17** Adolescent social defeat in male rats and adult self-administration of cocaine. A. R. BURKE*; K. A. MICZEK. *Tufts Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

157. Drugs of Abuse: Toxicity and Structural Plasticity

Theme C: Disorders of the Nervous System

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

8:00 CC1 **157.01** Using Fluoro-Gold *in vivo* to histologically examine damage in meninges and associated vasculature, choroid plexus and cerebral vasculature after neurotoxic doses of amphetamine. J. F. BOWYER*; S. SARKAR; L. C. SCHMUED; J. B. RAYMICK; K. M. TRANTER; J. P. HANIG. *NCTR/FDA, CDER/FDA.*

9:00 CC2 **157.02** Stress in adolescent rats augments MDMA-induced neurotoxicity during adulthood. V. M. CHIU*; G. A. GUDELSKY; B. K. YAMAMOTO. *Univ. of Toledo, Univ. of Cincinnati.*

10:00 CC3 **157.03** Crack cocaine use is associated with less prefrontal cortex activation in women with HIV. V. J. MEYER*; D. M. LITTLE; D. A. FITZGERALD; E. E. SUNDERMANN; L. H. RUBIN; K. M. WEBER; M. H. COHEN, MD; P. M. MAKI. *UIC, VISN 17 Ctr. of Excellence for Res. on Returning War Veterans at the Waco VA, Albert Einstein Col. of Med., Univ. of Illinois at Chicago, CORE Center/Cook County Hlth. and Hosp. Syst.*

11:00 CC4 **157.04** Nitrosylation of GAPDH mediates cerebral ischemic and cocaine neurotoxicity. M. M. HARRAZ*; S. H. SNYDER. *Johns Hopkins Univ.*

8:00 CC5 **157.05** Acute administration of clobenzorex affects the expression of FosB/ΔFosB transcription factor in the nucleus accumbens core and vetromedial striatum in rats. G. S. ROJAS*; V. PALAFOX-SÁNCHEZ; A. PATRICIO; G. RAMÍREZ-GARCÍA; I. D. LIMÓN. *Benemerita Univ. Autonoma De Puebla.*

9:00 CC6-DP3 **157.06** ● Super-resolution evaluation of stimulant-induced changes in VMAT2 subcellular distribution. C. L. GERMAN*; M. V. GUDHETI; G. R. HANSON; E. M. JORGENSEN; A. E. FLECKENSTEIN. *Univ. of Utah, Univ. of Utah, Vutara, Univ. of Utah, Howard Hughes Med. Inst.*

10:00 CC7 **157.07** Striatal glial proliferation following methamphetamine-induced dopamine neurotoxicity. D. M. FRIEND*; C. C. CHAU; F. G. STRATHMANN; K. A. KEEFE. *Univ. of Utah, Univ. of Utah, Univ. of Utah, Univ. of Utah.*

11:00 CC8 **157.08** Effects of 7,8-dihydroxyflavone on methamphetamine-induced dopaminergic neurotoxicity in mice. Q. REN*; J. ZHANG; M. MA; Y. FUJITA; K. HASHIMOTO. *Chiba Univ. Ctr. Forensic Mental Hlth.*

8:00 CC9 **157.09** Long-term effects of Methamphetamine abuse in an *in vivo* model of HIV-associated neurocognitive disorders. M. M. HOEFER*; A. B. SANCHEZ; R. MAUNG; C. M. DE ROZIERES; C. C. DOWLING; I. C. CATALAN; V. E. THANEY; J. PIÑA-CRESPO; D. ZHANG; A. J. ROBERTS; M. KAUL. *Sanford-Burnham Med. Res. Inst., Sanford-Burnham Med. Res. Inst., The Scripps Res. Inst., Univ. of California San Diego.*

9:00 CC10 **157.10** Nicotine administration attenuates the object recognition deficits caused by methamphetamine in rats. P. L. VIEIRA-BROCK*; L. M. MCFADDEN; G. R. HANSON; A. E. FLECKENSTEIN. *Univ. of Utah, Univ. of Utah.*

10:00 CC11 **157.11** Recovery of markers of dopaminergic terminals after a binge regimen of methamphetamine. S. J. O'DELL*; B. A. GALVEZ; A. J. BALL; J. F. MARSHALL. *Univ. of California, Irvine.*

11:00 CC12 **157.12** Methamphetamine causes degeneration of dopamine cell bodies and fibers of the nigrostriatal pathway evidenced by silver staining. N. GRANADO; S. ARES-SANTOS; I. ESPADAS; C. VICARIO-ABEJON*; R. MARTÍNEZ-MURILLO; R. MORATALLA. *Cajal Institute, CSIC.*

8:00 CC13 **157.13** Dopamine D3 receptors and the long-lasting effects of methamphetamine on monoaminergic systems. M. G. BALADI*; A. H. NEWMAN; S. M. NIELSEN; G. R. HANSON; A. E. FLECKENSTEIN. *Univ. of Utah, Natl. Inst. on Drug Abuse, Univ. of Utah.*

9:00 CC14 **157.14** Acute methamphetamine administration activates phasic dopamine signaling disrupted by methamphetamine-induced neurotoxicity. C. D. HOWARD*; D. P. DABERKOW; E. D. PASTUZYN; K. A. KEEFE; P. A. GARRIS. *Illinois State Univ., Eastern Washington Univ., Univ. of Utah, Univ. of Utah.*

10:00 DD1 **157.15** Neurotoxicity of the cathinone-derivative designer drug mephedrone: results from the SH-SY5Y neuroblastoma cell-line. B. DEN HOLLANDER*; S. ROZOV; I. OJANPERÄ; E. KANKURI; E. KORPI. *Univ. of Helsinki, Hjelt Inst.*

11:00 DD2 **157.16** Characterization of the methamphetamine-mediated heat shock protein expression in the striatum: Adrenergic mechanisms. A. S. DARVESH*; W. J. GELDENHUYS; R. J. STANTON, II; R. T. CARROLL; D. E. DLUZEN; T. J. JONES. *Northeast Ohio Med. Univ. (NEOMED).*

8:00 DD3 **157.17** Methamphetamine-induced impairment in phasic dopamine signaling, Arc, and basal ganglia-mediated learning and memory functions. E. D. PASTUZYN*; C. D. HOWARD; P. A. GARRIS; K. A. KEEFE. *Univ. of Utah, Univ. of Utah, Illinois State Univ.*

9:00 DD4 **157.18** Abnormal functional and structural cortico-striatal connectivity associated to reward processing in cocaine dependence. J. RIBA*; L. VAQUERO; J. BOUSO; E. CÁMARA; J. PÉREZ DE LOS COBOS; F. BATLLE; J. FÁBREGAS; J. SALES; M. CERVANTES; X. FERRER; G. LAZCANO; A. RODRÍGUEZ-FORNELLS. *Hosp. De Sant Pau, Cognition and Brain Plasticity Unit, IDIBELL-Bellvitge Biomed. Res. Inst., Addictive Behaviours Unit, Dept. of Psychiatry, Hosp. de Sant Pau, Ctr. d'Investigació i Tractament d'Addicions, CITA, Grup ATRA, Fndn. Hlth. and Community.*

10:00 DD5 **157.19** Ginsenoside Re attenuates methamphetamine-induced dopaminergic toxicity via targeting protein kinase Cδ. E. SHIN*; J. BACH; T. L. NGUYEN; J. LEE; B. YANG; M. WIE; S. KO; H. KIM. *Kangwon Natl. Univ., Chung-Ang Univ., Kangwon Natl. Univ., Semyung Univ.*

11:00 DD6 **157.20** MDMA reduces markers for GABAergic neurons in the hippocampus: Role of 5-HT2 receptor- and cyclooxygenase-dependent glial glutamate release. J. H. ANNEKEN; C. HUFF; J. I. CUNNINGHAM; S. A. COLLINS; R. MORANO; J. P. HERMAN; B. K. YAMAMOTO; G. A. GUDELSKY*. *Univ. of Cincinnati, Univ. of Toledo, Univ. of Cincinnati, James Winkle Col. of Pharm.*

8:00 DD7 **157.21** The effect of early life stress on methamphetamine induced damage in the striatum. E. HENSLEIGH*; K. ABUALI; M. EBY; J. EGAN; A. K. FOWLER; L. M. PRITCHARD. *Univ. of Nevada Las Vegas, Univ. of Nevada Las Vegas.*

9:00 DD8 **157.22** Acute effects of methamphetamine intake on vital signs. F. ZHAO*; M. LI; W. CAI; L. CUI; L. ZENG; J. SHEN; Y. QIAN; J. Z. TSIEN. *Georgia Regents Univ., BanNa Biomed. Res. Inst., Shanghai Key Lab. of Crime Scene Evidence, BanNa SmartCare Technologies Inc.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 DD9 **157.23** Methamphetamine induces neurotoxicity in blood-brain barrier endothelial cells: Protective role of prolactin. H. ROSAS-HERNANDEZ*; E. CUEVAS; S. M. LANTZ; M. G. PAULE; Q. GU; S. Z. IMAM; S. F. ALI; C. GONZALEZ. *Facultad De Ciencias Quimicas, Univ. Autonoma De San Luis Potosi, Natl. Ctr. for Toxicological Research/FDA.*

11:00 DD10 **157.24** Cocaine self-administration causes structural deficits in monkey prefrontal cortex: Longitudinal MR imaging results. C. W. BRADBERRY*; D. TUDORASCU; D. MINHAS; L. SHEU; H. P. JEDEMA; P. J. GIANAROS; J. C. PRICE; H. AIZENSTEIN. *Univ. of Pittsburgh, VA Pittsburgh Hlth. Services, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

8:00 DD11 **157.25** Preliminary Investigation of hippocampal and amygdala volumes with marijuana and affective disorders. A. KETCHERSIDE*; F. M. FILBEY. *UT Dallas and Ctr. For Brainhealth.*

9:00 DD12 **157.26** Synapse density and dendritic complexity are reduced in the medial prefrontal cortex following abstinence from chronic cocaine. G. SADRI-VAKILI*; K. RASAKHAM; H. D. SCHMIDT; M. N. HUIZENGA; N. CALCAGNO; K. KAY; C. PIERCE; T. L. SPIRES-JONES. *Massachusetts Gen Hosp, Univ. of Pennsylvania.*

10:00 DD13 **157.27** Redox regulation of dendritic spine formation and actin cycling in the nucleus accumbens of cocaine sensitized GSTP knockout mice. J. D. UYS*; C. L. BISSETTE; T. ANCRUM; P. J. MULHOLLAND; D. M. TOWNSEND; K. D. TEW. *Med. Univ. South Carolina, Med. Univ. South Carolina, Med. Univ. South Carolina.*

11:00 DD14 **157.28** Altered glial protein expression within the ventromedial and dorsomedial prefrontal cortex following extended access to cocaine self-administration in adult male rats. S. M. WEBB*; M. MCCLOSKEY; M. WROTEN; O. BEN-SHAHAR; K. SZUMLINSKI. *Univ. of California, Santa Barbara.*

POSTER

158. Opioids: Tolerance, Dependence and Withdrawal - Preclinical and Clinical Studies

Theme C: Disorders of the Nervous System

Sun. 8:00 AM – *San Diego Convention Center*, Halls B-H8

:00 DD15 **158.01** Conditioned place aversion to naloxone-precipitated withdrawal following a single microinjection of morphine into the periaqueductal gray of male and female rats. R. A. REID; S. W. KALLIO; M. M. MORGAN*. *Washington State Univ.*

9:00 DD16 **158.02** An NPFF receptor subtype-selective compound attenuates precipitated morphine withdrawal syndrome. D. H. MALIN*; A. P. NEGRETE; P. GOYARZU; W. D. MOON; N. VALJI; M. J. WOODS; S. TINWALA. *Univ. Houston-Clear Lake.*

10:00 DD17 **158.03** Naltrexone targets the basolateral nucleus of the amygdala to induce endogenous opioid withdrawal after peripheral inflammation. J. C. MORALES-MEDINA*; G. CORDER; B. TAYLOR. *Univ. of Kentucky, Univ. of Kentucky.*

11:00 DD18 **158.04** Co-administration of morphine and fentanyl into the PAG protects against tolerance to either opioid. E. N. BOBECK*; S. M. TAFF; M. M. MORGAN. *Washington State Univ., Washington State Univ.*

8:00 EE1 **158.05** Effects of CFA-induced chronic inflammatory pain on opioid self-administration and accumbal dopamine release in heroin dependent rats. L. HIPOLITO*; L. VIRAG; R. WHITTINGTON; S. COMER; J. A. MORON CONCEPCION. *Columbia Univ., Columbia Univ.*

9:00 EE2 **158.06** Anti-opioid microglia-BDNF-NMDA receptor system in morphine analgesic tolerance. Y. MATSUSHITA*; H. UEDA. *Nagasaki Univ.*

10:00 EE3 **158.07** Differential modulation of chemokine and cytokine expression in the rat brain by chronic morphine and withdrawal. L. CAMPBELL*; V. AVDOSHINA; S. ROZZI; I. MOCCHETTI. *Georgetown Univ. Med. Ctr.*

11:00 EE4 **158.08** ● ▲ Analysis of morphine reward, tolerance, and dependence in desensitization-resistant cannabinoid 1 receptor (CB1) mutant mice. M. GONEK; A. J. COOK; A. HUGHES; M. ZEE; K. MACKIE; D. J. MORGAN*. *Indiana Univ., Indiana Univ., Penn State Col. of Med.*

8:00 EE5 **158.09** Pharmacological paradigms of opiate-induced immunodepression does not alter the immunogenic potency profile of highly immunogenic opiate multi-valent vaccines in rodent. S. MARTIÑÓN*; J. HERNÁNDEZ; R. HERNÁNDEZ-MIRAMONTES; E. RAMOS; R. ACEVEDO; L. LÓPEZ-PEÑA; E. GARCÍA; I. MADERA; A. C. MARTÍNEZ-JUÁREZ; J. SALOMÓN; E. BONILLA-REYES; J. CALVA-NIEVES; S. A. MORENO-MENDIETA; S. BARBOSA; A. SALAZAR; P. PENTEL; B. ANTÓN. *Inst. Nacional De Psiquiatría Ramón De La Fuente, Minneapolis Med. research Fndn., Minneapolis Med. Res. Fndn.*

9:00 EE6 **158.10** The impact and predictive potential of stress and trauma intake assessments on medication assisted treatment (MAT) outcomes in opioid dependence recovery. K. M. JAREMKO*; R. S. STERLING. *Thomas Jefferson University, Farber Inst. for Neurosciences, Thomas Jefferson Univ.*

10:00 EE7 **158.11** Pain medication profile for severely burned military service members in Operations Iraqi Freedom and Enduring Freedom. M. M. SALAS*; J. A. JONES; M. FOWLER; D. R. LOYD; L. N. PETZ; E. M. RENZ; C. V. MAANI; T. H. GARZA; M. SUELTENFUSS; J. A. ORMAN; J. L. CLIFFORD. *United States Army Inst. of Surgical Res.*

11:00 EE8 **158.12** Immunological synergism on immunogenic and immunoneutralization of morphine and heroine analgesic overdosing potency profiles by the combinatory formulation and use in active immunization of different structural multivalent opiate vaccines in rodent. E. E. GARCIA-VENCES*; A. SALAZAR; J. HERNÁNDEZ; R. HERNÁNDEZ-MIRAMONTES; S. BARBOSA; J. SALOMÓN; E. BONILLA-REYES; E. RAMOS; R. ACEVEDO; L. LÓPEZ-PEÑA; S. MARTIÑÓN; I. K. MADERA-SALCEDO; J. CALVA-NIEVES; S. A. MORENO-MENDIETA; P. PENTEL; B. ANTÓN. *Proyecto Camina AC, Inst. Nacional De Psiquiatría Ramón De La Fuente, Minneapolis Med. Res. Fndn.*

8:00 EE9 **158.13** ● Morphine dependence causes tolerance to the acute effects of morphine on delay discounting. C. HARVEY-LEWIS*; K. B. J. FRANKLIN. *McGill Univ.*

9:00 EE10 **158.14** Cannabidiol increases the expression of locomotor sensitization induced by morphine in mice. R. FILEV*; D. ENGELKE; E. LIMA; D. X. SILVEIRA; L. E. MELLO; J. G. SANTOS-JÚNIOR. *UNIFESP, FCMSCSP.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

159. Taste

Theme D: Sensory and Motor Systems

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

8:00 EE11 **159.01** Monosodium glutamate elicits dynamic cortical responses in the awake rat. E. E. REID; M. A. BAEZ*; D. B. KATZ. *Brandeis Univ.*

9:00 EE12 **159.02** Noradrenergic modulation of solitary tract-evoked activity in the rostral nucleus of the solitary tract. Z. CHEN; J. BREZA; Y. YANAGAWA; J. ZHU; A. CHO; S. P. TRAVERS; J. B. TRAVERS*. *Ohio State Univ., Gunma Univ. Grad. Sch. of Med.*

10:00 EE13 **159.03** Neurons in the gustatory portion of the insular cortex respond to expectation of specific tastes. M. P. GARDNER*; A. FONTANINI. *SUNY At Stony Brook, Stony Brook Univ.*

11:00 EE14 **159.04** Tasting light: A *C. elegans* gustatory neuron senses the hydrogen peroxide produced by light to directly relax pharyngeal muscle. N. BHATLA*; H. R. HORVITZ. *MIT, HHMI, Dept. Biology, MIT.*

8:00 EE15 **159.05** Associations between depressive symptoms and reward processing: nutritive versus non-nutritive sweeteners. E. MCINTOSH*; A. JACOBSON; E. GREEN; L. GRAVES; S. OLESON; C. MURPHY. *San Diego State Univ., Univ. of California San Diego.*

9:00 EE16 **159.06** Pattern of innervation of taste buds revealed by brainbow labeling. V. J. CICCHINI; D. KAUFMAN; K. M. RICHMOND; F. N. ZAIDI; M. C. WHITEHEAD*. *Univ. California San Diego, Washington Univ. in St. Louis.*

10:00 EE17 **159.07** Anterior cingulate activation is correlated with subjective pleasantness ratings for saccharin in individuals with metabolic syndrome. S. OLESON*; E. GREEN; A. JACOBSON; E. MCINTOSH; L. GRAVES. *San Diego State Univ., SDSU-UCSD Joint Doctoral Program in Clin. Psychology.*

11:00 EE18 **159.08** Dynamics of spontaneous and evoked activity in the gustatory cortex of alert rats. L. MAZZUCATO*; A. FONTANINI; G. LA CAMERA. *Stony Brook Univ.*

8:00 FF1 **159.09** Receptors and transduction mechanisms for detection of l-amino acids. S. PAL CHOUDHURI*; R. J. DELAY; E. R. DELAY. *The Univ. of Vermont, The Univ. of Vermont.*

9:00 FF2 **159.10** Unconditioned oral-motor taste reactivity elicited by sucrose and quinine is unaffected by extensive bilateral damage to the gustatory zone of the insular cortex in rats. C. T. KING*; K. HASHIMOTO; G. BLONDE; A. C. SPECTOR. *Stetson Univ., Kumamoto Univ., Florida State Univ.*

10:00 FF3 **159.11** ● Gustatory delayed-match to sample task: a novel task to study neuronal representation of gustatory working memory in freely moving rats. M. Á. VILLAVICENCIO CAMARILLO*; I. O. PEREZ; S. A. SIMON; R. GUTIERREZ. *Ctr. De Investigación Y Estudios Avanzados, Duke Univ. Med. Ctr., Ctr. de Investigación y Estudios Avanzados.*

11:00 FF4 **159.12** Use of Principal Component Analysis to detect and characterize neuronal ensembles across multiple brain regions during different behavioral transitions. A. LUNA*; I. PEREZ; D. ELIAS-VIÑAS; R. GUTIERREZ. *CINVESTAV, CINVESTAV.*

8:00 FF5 **159.13** Distinct neuronal ensembles from the orbitofrontal and motor cortex are modulated either by feeding or slow wave sleep. I. O. PEREZ-MARTINEZ*; L. E. PRADO; S. A. SIMON; R. GUTIERREZ. *CINVESTAV del IPN, Duke Univ. Med. Ctr.*

9:00 FF6 **159.14** Speed and accuracy of taste identification and palatability: Impact of learning, reward expectancy and consummatory licking. R. GUTIERREZ*; I. O. PEREZ; M. VILLAVICENCIO; S. A. SIMON. *CINVESTAV - IPN, Duke Univ. Med. Ctr.*

10:00 FF7 **159.15** PBN neuroanatomical maps and taste reactivity behavior in response to bitter, sweet and umami taste stimuli in the mouse. J. SAPUTRA*; M. E. C. FITZGERALD; J. D. BOUGHTER, Jr. *Univ. of Tennessee Hlth. Sci. Ctr. Memphis, Christian Brothers Univ.*

11:00 FF8 **159.16** Functional mapping of excitatory synaptic inputs in the agranular insular cortex. K. YAMAMOTO*; N. KOSHIKAWA; M. KOBAYASHI. *Dept. of Pharmacology, Nihon Univ. Sch. of Dent.*

8:00 FF9 **159.17** Midbrain modulation of taste information processing in the parabrachial nuclei. C. LI; Y. K. CHO*. *Southern Illinois Univ., Gangneung-Wonju Natl. Univ.*

9:00 FF10 **159.18** Trait anxiety and its relationship to gustatory and reward processing. A. D. JACOBSON*; E. R. GREEN; E. MCINTOSH; L. GRAVES; S. OLESON; P. ANGUIANO; C. MURPHY. *San Diego State Univ., SDSU/UCSD Joint Doctoral Program, San Diego State Univ., San Diego State Univ.*

10:00 GG1 **159.19** A computational model of convergence and short term synaptic plasticity in the rostral nucleus of the solitary tract. A. J. BOXWELL*; M. E. FRANK; J. B. TRAVERS. *The Ohio State Univ., Univ. of Connecticut Hlth. Ctr., The Ohio State Univ.*

11:00 GG2 **159.20** Gut neuronal circuit revealed by viral neurotracing. D. V. BOHORQUEZ*; F. WANG; R. A. LIDDLE. *Duke Univ. Med. Ctr., Duke Univ. Med. Ctr.*

8:00 GG3 **159.21** Development of VGluT2 positive glutamatergic terminals in orosensory rostral NTS. G. BOCHORISHVILI; C. YANG; A. FU; A. ERISIR*. *Univ. of Virginia, Univ. of Virginia, Univ. of Virginia.*

9:00 GG4 **159.22** Temporal dynamics of taste quality discrimination in head-restrained mice. D. M. GRAHAM*; D. HILL. *Univ. of Virginia.*

10:00 GG5 **159.23** Stimulation of the gustatory cortex in conscious rats increases ingestive and aversive taste reactivity behaviors and Fos-immunoreactive neurons in the gustatory brainstem. M. S. KING*; G. S. ROWE. *Stetson Univ.*

11:00 GG6 **159.24** Olfactory stimuli can enhance or attenuate information conveyed about taste quality in the nucleus of the solitary tract in awake, freely licking rats. O. D. ESCANILLA; J. D. VICTOR; P. M. DI LORENZO*. *Binghamton Univ., Weill Cornell Med. Col.*

8:00 GG7 **159.25** Analysis of neural network in *Aplysia* central nervous system concerning with taste recognition by voltage sensitive dye imaging. Y. MIYAKE*; R. KIMURA; Y. YOSHIMI; T. NAGAHAMA. *Dept. Appl. Chem., Shibaura Inst. Technol., Fac. Pha. Sci., Toho Univ.*

9:00 GG8 **159.26** Neurochemical subgrouping of chorda tympani neurons in the geniculate ganglion. M. WANG*; R. M. BRADLEY. *Univ. of Michigan, Univ. of Michigan.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

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POSTER

160. Striate Cortex: Neural Coding I

Theme D: Sensory and Motor Systems

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

8:00 GG9 **160.01** Visual navigation without visual cortex - Unexpected roles for mouse V1 in visual processing. M. N. HAVENITH*; H. LANGESLAG; M. HAUSSER. *Univ. Col. London.*

9:00 GG10 **160.02** Simulations of the statistics of firing activity of neuronal populations in the entire mouse brain. N. CAIN; T. FLISS; V. MENON; R. IYER*; C. KOCH; S. MIHALAS. *Allen Inst. For Brain Sci.*

10:00 GG11 **160.03** Coincidence detection in layer 5 pyramidal neurons of mouse V1. A. SHAI*; C. ANASSTASIOU; M. LARKUM; C. KOCH. *Caltech, Caltech, The Allen Inst. for Brain Sci., Humboldt Univ.*

11:00 GG12 **160.04** The brain as social network: Self-organization and the statistics of neural connectivity. M. A. BUICE; N. CAIN; M. HAWRYLYCZ; S. MIHALAS*. *Allen Inst. For Brain Sci.*

8:00 GG13 **160.05** Laminar and regional development of the visual cortex of prenatal human and mouse revealed with gene expression patterns. S. DING*; J. J. ROYALL; A. M. HENRY; R. DALLEY; E. S. LEIN; J. G. HOHMANN. *Allen Inst. For Brain Sci.*

9:00 GG14 **160.06** Electrophysiological characterization of mouse cortical neuron subtypes. J. BERG*; L. LI; C. KOCH; H. ZENG. *Allen Inst. For Brain Sci., Allen Inst. for Brain Sci.*

10:00 GG15-DP5 **160.07** State-dependent impact of distinct interneuron types on spontaneous and stimulus-evoked population activity. U. KNOBLICH*; J. CARDIN. *Yale Univ.*

11:00 GG16 **160.08** Narrowband gamma oscillations in the primary visual cortex of the behaving mouse. M. KRUMIN*; E. DIAMANTI; K. D. HARRIS; M. CARANDINI. *Univ. Col. London.*

8:00 GG17 **160.09** Effects of anesthesia on ensemble patterns of Ca^{2+} activity in mouse visual cortex: A reduction in direction selectivity that is not attributable to increased correlations in ongoing cellular activity. C. M. PENNARTZ*; J. MONTIJN; P. M. GOLTSTEIN. *Univ. of Amsterdam, Univ. of Amsterdam.*

9:00 GG18 **160.10** Population coupling differs across cortical neurons and predicts their pairwise correlations. M. OKUN*; S. SAKATA; M. CARANDINI; K. D. HARRIS. *UCL, Univ. of Strathclyde.*

10:00 HH1 **160.11** Decoding visual motion and locomotion in the mouse primary visual cortex. A. B. SALEEM*; A. AYAZ; K. J. JEFFERY; K. D. HARRIS; M. CARANDINI. *Univ. Col. London.*

11:00 HH2 **160.12** Multi-neuronal activity related to visual completion in rat visual cortex. T. YOSHIDA*; K. OZAWA; S. ITOHARA; H. CÂTEAU. *RIKEN Brain Sci. Inst., RIKEN Brain Sci. Inst., Univ. of Tsukuba.*

8:00 HH3 **160.13** Optogenetic stimulation in behaving mice shows that cortical populations can act as near-perfect linear integrators of input. M. H. HISTED*; J. H. R. MAUNSELL. *Harvard Med. Sch.*

9:00 HH4 **160.14** Cellular mechanisms and function of 4 Hz oscillations in the visual cortex of the awake mouse. P. POLACK*; P. GOLSHANI. *Univ. of California - Los Angeles.*

10:00 HH5 **160.15** Feature-specific processing of natural information in mouse primary visual cortex. R. V. RIKHYE*; M. SUR. *MIT.*

11:00 HH6 **160.16** Neural mechanisms underlying competitive stimulus interactions in alert primate visual cortex. J. J. NASSI*; A. H. CETIN; A. W. ROE; J. H. REYNOLDS. *Salk Inst. For Biol. Studies, Vanderbilt Univ.*

8:00 HH7 **160.17** Rate and temporal coding of briefly presented images in macaque V1. M. MULAS*; S. POJOGA; V. DRAGOI. *The Univ. of Texas Hlth. Sci. Ctr. At Houston.*

POSTER

161. Binocular Vision, Depth, and Stereo

Theme D: Sensory and Motor Systems

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

8:00 HH8 **161.01** Measuring perception without introspection. G. LUO-LI; D. ALAIS; A. W. FREEMAN*. *Univ. of Sydney, Univ. of Sydney.*

9:00 HH9 **161.02** Finite-size effects in binocular rivalry. H. A. SOULA*; C. C. CHOW. *INRIA, NIH/NIDDK.*

10:00 HH10 **161.03** The impact of social associative learning on conscious visual awareness during binocular rivalry. M. LEE; H. KIM; C. KIM*. *Dept. of Psychology, Korea Univ.*

11:00 HH11 **161.04** Estimating the time-varying SSVEP envelope during binocular rivalry: A simultaneous EEG-fMRI study. K. JAMISON*; A. ROY; S. HE; S. ENGEL; B. HE. *Univ. of Minnesota, Univ. of Minnesota.*

8:00 HH12 **161.05** Neurophysiological investigation of interocular interaction using dichoptic stimuli with different temporal frequencies. S. CHO*; S. HE. *Univ. of Minnesota, Univ. of Minnesota.*

9:00 HH13 **161.06** Cyclopean perception with two eyes: binocular integration in early visual cortex. ; B. ROKERS; S. O. DUMOULIN. *Utrecht Univ., Univ. of Wisconsin-Madison.*

10:00 HH14 **161.07** Binocular integration in the mouse lateral geniculate nuclei. T. BROWN*; M. HOWARTH; L. WALMSLEY. *Univ. of Manchester.*

11:00 HH15 **161.08** The effects of reversible inactivation of the Caudal Intraparietal area on the cortical network involved in the analysis of depth structure studied with awake monkey fMRI. I. C. VAN DROMME*; W. VANDUFFEL; P. JANSSEN. *Kuleuven, Athinoula A Martinos Ctr. Biomed Imaging, MGH, Harvard Univ.*

8:00 HH16 **161.09** A blind spot in *Drosophila* motion vision specific for contrast polarity. A. BAHL*; A. BORST. *Max Planck Inst. of Neurobio.*

9:00 HH17 **161.10** Steady-state electroencephalography studies of cyclopean stereomotion-in-depth processing in humans. C. J. AURA*; E. P. LEWIS; K. Q. CHANG; M. K. WARD; T. P. GAWNE; M. S. BOLDING; P. D. GAMLIN. *UAB.*

10:00 HH18 **161.11** Saccadic suppression is not determined by the physical speed of the stimulated eye. J. KNÖLL*; P. HOLL; F. BREMMER. *Phphilipps-University Marburg, Philipps-University Marburg.*

11:00 II1 **161.12** A comparison of models integrating binocular disparity and motion selectivity. P. M. BAKER*; W. BAIR. *Univ. of Washington.*

8:00 II2 **161.13** Neural correlates of size constancy in three-dimensional space. P. WANG; Q. CHEN*. *Sch. of Psychology, South China Normal University, Guangzhou 510631, P.r.China.*

9:00 II3 **161.14** Interocular inversion of suppressive tuning from the surround in human and monkey. B. LANKOW*; W. M. USREY. *UC Davis.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 II4 **161.15** ● Combination of stereopsis and background music facilitates visual ventral processing stream. T. TAGUCHI*; Y. ONO; A. ENDO; M. KOSAKA; T. FUJII; T. ICHIKAWA. *Meiji Univ., OLYMPUS MEMORY WORKS CORP.*

11:00 II5 **161.16** Impaired 3D perception in patients with posterior cortical atrophy: behavioral and neuroimaging evidence. C. R. GILLEBERT*; J. T. TODD; C. BASTIN; M. VANDENBULCKE; S. SUNAERT; J. VERSIJPT; E. SALMON; G. A. ORBAN; R. VANDENBERGHE. *Univ. of Oxford, KU Leuven, The Ohio State Univ., Univ. of Liege, Univ. Hosp. Leuven, Univ. Hosp. Leuven, Univ. Hosp. Brussels, Univ. of Parma, Univ. Hosp. Leuven.*

8:00 II6 **161.17** V1 complex cells pool multiple disparity detectors tuned to different spatial frequencies. M. BABA; K. S. SASAKI; I. OHZAWA*. *Osaka Univ., Ctr. for Information and Neural Networks.*

POSTER

162. Visually-Guided Reaching: Physiology and Anatomy

Theme D: Sensory and Motor Systems

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

8:00 II7 **162.01** ▲ The impact of kinematics on the interpretation of movement studies in fMRI. E. SHEYGAL*; J. MARTIN; M. HIMMELBACH. *Ctr. For Neurology, Univ. of Tuebingen.*

9:00 II8 **162.02** Functional facilitation of visual inputs during visual guidance of arm movements: A visual evoked potential study. J. BLOUIN*; N. LEBAR; P. BERNIER; A. GUILLAUME; L. MOUCHNINO. *CNRS, Aix-Marseille Univ., Univ. of Sherbooke.*

10:00 II9 **162.03** Subcortical afferences to the medial PPC in macaque monkey. M. GAMBERINI*; L. PASSARELLI; S. BAKOLA; P. FATTORI; C. GALLETTI. *Univ. of Bologna, Monash Univ.*

11:00 II10 **162.04** TMS over key sites in the occipital-parietal-frontal pathway for visually-guided reach: Time-dependent effects on visuospatial memory versus motor planning. D. C. CAPPADOCIA*; K. GHARAVI; J. C. DESSING; M. VESIA; J. D. CRAWFORD. *York Univ., Queen's Univ. Belfast, Toronto Western Res. Institute, Univ. of Toronto.*

8:00 II11 **162.05** Paired associative cortico-cortical stimulation changes overall network dynamics in a grasping-related network. V. M. JOHNEN*; F. X. NEUBERT; R. B. MARS; M. F. S. RUSHWORTH. *Univ. of Oxford.*

9:00 II12 **162.06** Neural correlates of visuo-proprioceptive integration for online movement control. P. BERNIER*; D. GAUDREAU; F. THÉNAULT; M. GAGNÉ; A. MARCHESE; K. WHITTINGSTALL. *Univ. De Sherbrooke, Univ. de Sherbrooke, Univ. de Sherbrooke.*

10:00 II13 **162.07** Timing of movement onset is continuously controlled by modulation of subcortical motor circuit. T. IJIRI*; M. SHINYA; K. NAKAZAWA. *The Univ. of Tokyo, The Univ. of Tokyo.*

11:00 II14 **162.08** Combined encoding of target and hand position in the medial posterior parietal cortex of macaque monkeys during reaches in 3D space. F. BERTOZZI; K. HADJIDIMITRAKIS; R. BREVEGLIERI; G. DAL BÒ; A. BOSCO; C. GALLETTI; P. FATTORI*. *Universita' di Bologna, Monash Univ.*

8:00 II15 **162.09** EEG correlates and behavioral responses to visuo-motor conflicts of varying magnitude. A. SOBOLEWSKI*; R. CHAVARRIAGA; J. D. R. MILLÁN. *École Polytechnique Fédérale De Lausanne (EPFL).*

9:00 II16 **162.10** The influence of object distinctiveness on reach-to-grasp signals at the human anterior intraparietal sulcus. J. A. MARTIN*; E. SHEYGAL; M. HIMMELBACH. *Univ. Hosp. Tuebingen,, Ctr. for Neurol.*

10:00 II17 **162.11** Object-centered representations in monkey parietal reach region and dorsal premotor cortex. B. TAGHIZADEH SARSHOURI*; A. GAIL. *German Primate Ctr., Bernstein Ctr. for Computat. Neurosci.*

11:00 II18 **162.12** Different evolutionary origins for the Reach and Grasp: A potential explanation for dual sensorimotor channels in primate parietofrontal cortex. J. M. KARL; I. Q. WHISHAW*. *Univ. of Lethbridge, Univ. Lethbridge.*

8:00 JJ1 **162.13** Frequency-selective functional cortico-cortical interactions between monkey parietal reach region and dorsal premotor cortex in memory guided reaching movements. P. MARTINEZ-VAZQUEZ*; B. TAGHIZADEH; A. WITT; A. GAIL. *Deutsches Primatenzentrum (DPZ), Max Planck Inst., Bernstein Ctr. for Computat. Neurosci. (BCCN).*

9:00 JJ2 **162.14** Latent variable analysis of motor cortical population activity in a tracing task. S. B. SUWAY*; G. W. FRASER; M. VELLISTE; A. B. SCHWARTZ. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh and Carnegie Mellon Univ.*

10:00 JJ3 **162.15** Hand manipulation and mirror neurons in the inferior parietal lobule respond to the visual image of one's own hand movement. K. MAEDA*; K. NAKAJIMA; M. INASE; H. ISHIDA; A. MURATA. *Dept. of Physiology, Grad. Sch. of Med., Kinki Univ., JSPS Res. Fellow, Dept. of Physiology, Facult. of Med., Kinki Univ., Italian Inst. of Technology, Brain Ctr. for Motor and Social Cognition.*

11:00 JJ4 **162.16** Reach and grasp movements are similarily altered after corticospinal tract lesions vs. the removal of visual feedback: Could the direct corticospinal pathway have evolved as the terminal output of the dorsal stream for visual control of reach-to-grasp movements in primates? J. M. KARL*; I. Q. WHISHAW. *Univ. of Lethbridge, Univ. of Lethbridge.*

8:00 JJ5 **162.17** Simultaneous decoding of reach intention and eye position in premotor areas. N. FRIEDMAN*; R. G. STACEY; S. MUSALLAM. *McGill Univ., McGill Univ., McGill Univ.*

9:00 JJ6 **162.18** Modulation of band-specific macaque EEG rhythms during observation of human reaching/grasping actions. S. G. THORPE*; G. COUDE; F. FESTANTE; M. BIMBI; R. VANDERWERT; P. FERRARI; N. FOX. *Univ. of Maryland Child Develop. Lab., Univ. of Parma, Boston Children's Hospital, Harvard Med. Sch.*

10:00 JJ7 **162.19** Reach and grasp domains identified in parietal and frontal cortex with intrinsic optical imaging in behaving monkeys. O. A. GHARBAWIE*; R. M. FRIEDMAN; A. W. ROE. *Vanderbilt Univ.*

11:00 JJ8 **162.20** Integrating contextual rules and visual information for reaching: hierarchical motor goal processing in the frontoparietal reach network? C. BUDZISZEWSKI; A. LINDNER*; A. GAIL. *Hertie Inst., German Primate Ctr., Bernstein Ctr. for Computat. Neurosci.*

8:00 JJ9 **162.21** Low frequency modulation of the beta rhythm during movement coordination in posterior parietal cortex. D. J. HAWELLEK*; Y. T. WONG; B. PESARAN. *New York Univ.*

9:00 JJ10 **162.22** Coherent neural activity coordinates movement decisions across the posterior parietal cortex. B. PESARAN*; M. FABISZAK; N. DAW; Y. T. WONG. *New York Univ., Cornell Univ.*

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POSTER

163. Visually-Guided Reaching: Behavior and Modeling

Theme D: Sensory and Motor Systems

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

8:00 JJ11 **163.01** Dynamic reach plan updating in the medial intraparietal sulcus and dorsal premotor cortex. R. G. STACEY*; R. RAJALINGHAM; S. MUSALLAM. *McGill University, Montreal, McGill.*

9:00 JJ12 **163.02** Effect of response alternatives on rapid on-line manual adjustments with different eye-hand coordination. N. ABEKAWA*; T. INUI; H. GOMI. *NTT Communication Sci. Labs., Grad. Sch. of Informatics, Kyoto univ.*

10:00 JJ13 **163.03** Proprioceptive recalibration and reach adaptation after training with altered terminal feedback of the hand. V. A. BARKLEY*; D. SALOMONCZYK; E. K. CRESSMAN; D. Y. P. HENRIQUES. *York Univ., Univ. of Ottawa.*

11:00 JJ14 **163.04** Encoding spatiotemporal patterns in artificial neural networks applied to visual sensorimotor processing. S. L. MORELHAO*; Z. AMIRKHANYAN; C. MICHELINI. *Univ. of Sao Paulo - Inst. of Physics.*

8:00 JJ15 **163.05** Repetition suppression effects for eye, hand and foot movement planning: Effector-dependent versus effector-independent representations. T. HEED*; F. T. M. LEONE; I. TONI; W. P. MEDENDORP. *Univ. of Hamburg, Donders Inst. for Brain, Cognition and Behaviour, Donders Inst. for Brain, Cognition and Behaviour.*

9:00 JJ16 **163.06** Judging endpoint bias: Evidence for a sweet spot? L. TREMBLAY*; S. HANSEN; V. CRAINIC; T. N. WELSH. *Univ. of Toronto, Nipissing Univ.*

10:00 JJ17 **163.07** Proprioceptive position sense changes when skin stretch around the elbow is non-invasively manipulated. I. A. KULING*; E. BRENNER; J. B. J. SMEETS. *VU Univ. Amsterdam.*

11:00 JJ18 **163.08** The influence of bottom-up visual salience decays linearly in a compelled reaching paradigm. D. K. WOOD*; C. S. CHAPMAN; J. P. GALLIVAN; J. L. MILNE; J. C. CULHAM; M. A. GOODALE. *Univ. of Western Ontario, Univ. of Alberta, Queen's Univ., Univ. of Western Ontario.*

8:00 KK1 **163.09** Spatial control of manual interception. J. C. DESSING*; S. A. REID. *Queen's Univ. Belfast.*

9:00 KK2 **163.10** Cross-modal performance benefits in goal-directed bimanual movements. F. A. KAGERER*. *Michigan State Univ.*

10:00 KK3 **163.11** Partial visual feedback of the hand is sufficient to reduce gaze-dependent reaching errors. I. SCHUETZ*; M. KLINGHAMMER; K. FIEHLER. *Justus-Liebig-University Giessen.*

11:00 KK4 **163.12** From laboratory to iPad: Contrasting the effects of visuomotor tasks. C. BEDORE*; H. LEHMANN; L. E. BROWN. *Trent Univ.*

8:00 KK5 **163.13** ▲ Retention of proprioceptive recalibration following visuomotor adaptation. N. NOUROUZPOUR*; D. SALOMONCZYK; R. KAMRAN-DISFANI; E. K. CRESSMAN; D. Y. P. HENRIQUES. *York Univ., York Univ., York Univ., York Univ., Univ. of Ottawa.*

9:00 KK6 **163.14** Reach planning in ambiguous situations. H. M. GERTZ*; K. FIEHLER. *Justus-Liebig Univ. Giessen, Exptl. Psychology.*

10:00 KK7 **163.15** The difference in spatial accuracy of target jump response in elderly and young individuals. D. KIMURA*; K. KADOTA; Y. HIRAMATSU; H. JINNOUCHI; H. KINOSHITA. *Osaka Univ.*

11:00 KK8 **163.16** Influence of gaze direction, target location, and target orientation on memory-guided reach and grasp errors. ; J. C. DESSING; X. YAN; J. D. CRAWFORD. *York Univ., Queen's Univ. Belfast, York Univ., York Univ.*

8:00 LL1 **163.17** Uncertainty in the limits of visual depth perception. R. A. SCHEIDT*. *Marquette Univ.*

9:00 LL2 **163.18** Eye-hand coordination during the manual interception of moving targets. Y. LI*; H. CUI. *Georgia Regents Univ., Georgia Regents Univ.*

10:00 LL3 **163.19** Estimating dynamics of motor parameters in the mirror drawing task. J. D. CADENA-VALENCIA*. *Inst. De Neurobía.*

11:00 LL4 **163.20** Dealing with delay while playing pong-simultaneity and state representation. G. AVRAHAM*; F. A. MUSSA-IVALDI; A. KARNIEL. *Ben-Gurion Univ. of the Negev, Rehabil. Inst. of Chicago.*

POSTER

164. Vestibular System: Central Physiology and Anatomy

Theme D: Sensory and Motor Systems

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

8:00 LL5 **164.01** An irrigation device for bi-thermic caloric vestibular stimulation during functional MRI. S. M. FRANK*; M. W. GREENLEE. *Dartmouth Col., Univ. of Regensburg.*

9:00 LL6 **164.02** Semicircular canal contributions to somatosensory cortical processing: A high-density EEG study in humans. C. PFEIFFER*; M. VAN ELK; O. BLANKE. *Lab. of Cognitive Neurosci., Univ. of Amsterdam, Ecole Polytechnique Federale de Lausanne.*

10:00 LL7 **164.03** Tone burst-evoked responses in the vestibular nuclei of rats. H. ZHU*; X. TANG; J. HUANG; W. MUSTAIN; L. HOUSE; W. ZHOU. *Dept Otolaryngology, Univ. Mississippi Med. Ctr., Univ. Mississippi Med. Ctr.*

11:00 LL8 **164.04** Mechanistic basis and spatio-temporal specificity of galvanic vestibular stimulation in Xenopus laevis. A. KAUFMANN; K. GENSBERGER; H. DIETRICH; F. BRANONER; R. BANCHI; B. P. CHAGNAUD; H. STRAKA*. *LMU Munich - Biocenter Martinsried.*

8:00 LL9 **164.05** Trans-synaptic viral tracing of vestibulospinal circuitry. A. J. MURRAY*; T. BELTON; T. AKAY; N. ZAMPIERI; T. M. JESSELL. *Columbia Univ., Columbia Univ.*

9:00 LL10 **164.06** Hindlimb motion alters caudal vestibular nucleus neuronal activity in decerebrate cats. A. A. MCCALL, MD; M. S. ARSHIAN; S. R. PUTERBAUGH; C. E. HOBSON; L. A. COTTER; B. J. YATES*. *Univ. Pittsburgh.*

10:00 LL11 **164.07** Modeling the spatiotemporal responses of vestibular neurons to translational motion at multiple stages along the vestibular pathways. R. CHAN*; S. LUI; X. YU; A. CHEN; G. C. DEANGELIS; D. E. ANGELAKI. *Baylor Col. of Med., East China Normal Univ., Univ. of Rochester.*

11:00 LL12 **164.08** Investigation of the role of rostral fastigial neurons in encoding a body-centered representation of translation in three-dimensions. C. MARTIN*; J. X. BROOKS; A. M. GREEN. *Univ. de Montréal.*

8:00 MM1 **164.09** Inactivation of GABA-B receptors in the cerebellar nodulus and uvula changes vestibular responses of Purkinje cells. T. A. YAKUSHEVA*; D. E. ANGELAKI; P. M. BLAZQUEZ. *Washington Univ., Baylor Col. of Med.*

9:00 MM2 **164.10** GABAergic transmission in the critical period impacts on the thalamic spatial map and navigation behavior. Y. CHAN*; W. Q. CHEN; C. W. MA; W. SHI; F. P. BOTELHO; C. H. LAI; D. K. Y. SHUM. *Univ. Hong Kong Fac Med., Univ. Hong Kong Fac Med.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 MM3 **164.11** Cerebellar Purkinje cells exhibit rapid plasticity during motor learning. H. L. PAYNE*; M. S. GOLDMAN; J. L. RAYMOND. *Stanford Univ., Univ. of California at Davis, Stanford Univ.*

11:00 MM4 **164.12** Gating of error signals in the cerebellum. R. R. KIMPO*; J. M. RINALDI; C. K. KIM; J. L. RAYMOND. *Stanford Univ., Stanford Univ.*

8:00 MM5 **164.13** A mixture of unsupervised and supervised learning allows improvement in space updating. I. MACKROUS*; M. SIMONEAU. *Univ. Laval.*

9:00 MM6 **164.14** ▲ Frequency dependent VOR motor learning in normal and cerebellectomized goldfish. S. MIKI; M. MATSUYAMA; A. ITAI; R. G. BAKER; Y. HIRATA*. *Chubu Univ. Col. of Engin., New York Univ. Sch. of Med.*

10:00 MM7 **164.15** Vestibular ocular response in Casp3 deficient mice. T. MAKISHIMA*; R. COOK; M. MOLINE; K. KUSTER; P. ARMSTRONG; A. PERACHIO; S. WOOD. *Univ. of Texas Med. Br., NASA Johnson Space Ctr.*

POSTER

165. Trigeminal Processing

Theme D: Sensory and Motor Systems

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

8:00 MM8 **165.01** Physiological stimulation of eye blink electromyographic activity in a rat model for dry eye. M. M. RAHMAN*; K. OKAMOTO; A. KATAGIRI; R. THOMPSON; D. A. BEREITER. *Univ. of Minnesota Sch. of Dent.*

9:00 MM9 **165.02** Evidence for central sensitization in a rat model of Dry Eye. A. KATAGIRI*; R. THOMPSON; K. OKAMOTO; M. M. RAHMAN; D. A. BEREITER. *Univ. of Minnesota Sch. of Dent.*

10:00 MM10 **165.03** Estrogen acts through mGluR1 to modulate TMJ-evoked activity of trigeminal subnucleus caudalis neurons in female rats. A. TASHIRO*; R. TAMURA; Y. NISHIDA. *Natl. Def. Med. Col.*

11:00 NN1 **165.04** Capsaicin and ATP sensitivities in electrically-classified trigeminal ganglion neurons of mice. K. ONO*; Y. YE; B. L. SCHMIDT. *New York Univ. Col. of Dent.*

8:00 NN2 **165.05** *In vivo* monitoring of chemically evoked activity patterns in the trigeminal ganglion. M. LUBBERT*; J. KYEREME; M. ROTHERMEL; K. HOFFMANN; C. H. WETZEL; H. HATT. *Ruhr Univ. Bochum, The Brain Inst., Ruhr Univ. Bochum, Mol. Neurosciences.*

9:00 NN3 **165.06** Prolonged sensitization of trigeminal nociceptive neurons caused by neck muscle inflammation and REM sleep deprivation: Implications for migraine and TMD pathology. P. L. DURHAM*; J. L. HAWKINS; J. E. DENSON; B. N. THURMAN. *Missouri State Univ.*

10:00 NN4 **165.07** Transient triptan exposure enhances susceptibility to cortical spreading depression and trigeminal sensitization. M. H. OSSIPOV*; A. L. GREEN; P. GU; M. DE FELICE; D. W. DODICK; F. PORRECA. *Univ. of Arizona Col. Med., Mayo Clin. Arizona.*

11:00 NN5 **165.08** Correlation between algogenic effects of calcitonin-gene-related peptide and activation of trigeminal-vascular system, in an *in vivo* experimental model of nitroglycerin-induced sensitization. G. TRINGALI*; M. C. GRECO; G. POZZOLI; P. NAVARRA; A. CAPUANO. *Catholic Univ. Sch. Med., Dept. of Neuroscience, Bambino Gesù Children's Hospital, IRCCS.*

8:00 NN6 **165.09** Nitroglycerin induces thermal and mechanical hypersensitivity in an operant model of pain-related behavior in mouse. A. H. AHN*; J. L. HOLT; A. CURTA; J. K. NEUBERT; R. M. CAUDLE. *Univ. of Florida Col. of Med., Univ. of Florida Col. of Med., Univ. of Florida Col. of Dent.*

9:00 NN7 **165.10** Nitric oxide signaling contributes ectopic orofacial neuropathic pain. M. SHINODA*; T. SUGIYAMA; K. HONDA; K. KAJI; K. URATA; T. TAMAGAWA; A. SUZUKI; K. IWATA. *Nihon Univ. Sch. of Dent.*

10:00 NN8 **165.11** Diet-induced obesity potentiates sensitivity to light and trigeminal stimulation in mice. H. L. ROSSI*; A. S. K. LUU; O. LARA; A. RECOBER. *Univ. of Iowa.*

11:00 NN9 **165.12** Dynamic regulation of the CGRP gene in trigeminal ganglia. A. RADDANT*; A. F. RUSSO. *Univ. of Iowa.*

8:00 NN10 **165.13** The role of androgen receptor in transcriptional modulation of cannabinoid 1 receptor (CB1) gene in trigeminal ganglia. J. ASGAR*; K. LEE; Y. ZHANG; M. CHUNG; J. Y. RO. *Univ. of Maryland Sch. of Dent.*

9:00 NN11 **165.14** Activation of central terminal 5-HT3A receptors of primary afferents mediates descending facilitation and maintains excitatory synaptic input underlying persistent neuropathic pain. Y. CHU; M. LI; W. GUO; S. ZOU; K. REN; R. DUBNER; F. WEI*. *Dent. Sch, & Prog. Neurosci. Univ. Maryland, Tongji Hospital, Tongji Med. College, Huazhong Univ. of Sci. and Technol.*

10:00 NN12 **165.15** Small physiological temperature shifts drive glutamate release and action potentials in Lamina I/IIo trigeminal nucleus caudalis *in vitro.* T. M. LARGENT-MILNES*; S. A. AICHER; M. C. ANDRESEN. *Oregon Hlth. and Sci. Univ.*

11:00 NN13 **165.16** ● Ultrastructural analysis of central connectivity of TRPA1-expressing primary afferent terminals in the rat trigeminal sensory nuclei. Y. CHO; E. YANG; J. BAE; Y. KIM; Y. BAE*. *Sch. of Dentistry, Kyungpook Natl. Univ.*

8:00 NN14 **165.17** Animal model for investigating the features related with orthodontic treatment-induced pain. A. SASAKI*; K. TAKAHASHI; M. MANO; N. SUDA; O. AMANO; H. SAKAGAMI; K. ADACHI. *Meikai Univ., Meikai Univ. Sch. of Dent., Meikai Univ., Meikai Univ. Sch. of Dent., Nihon Univ. Sch. of Dent., RIKEN.*

9:00 NN15 **165.18** Reduction of matrix metalloprotease expression in the trigeminal ganglion and orofacial nociception after low level laser therapy in rats with temporomandibular joint inflammation. C. R. LEITE-PANISSI*; A. C. DESIDERÁ; G. C. NASCIMENTO; R. F. GERLACH. *Ribeirao Preto Dent. Sch. - USP.*

10:00 NN16 **165.19** Trigeminal odor sensation involves activation of several TRP channels. J. KYEREME*; M. LÜBBERT; H. HATT. *Ruhr Univ. Bochum.*

POSTER

166. Mechanisms of Neuropathic Pain: Inflammatory Mediators

Theme D: Sensory and Motor Systems

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

8:00 NN17 **166.01** ● Inhibiting inflammation with CCR2/5 antagonist reverses mechanical and cold allodynia in painful diabetic neuropathy rats. S. LEE*; J. MOON; X. Q. SHI; S. PADI; H. HUANG; C. B. PERT; M. R. RUFF; J. ZHANG. *McGill Univ., Rapid Pharmaceut. Inc.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 NN18 **166.02** Chemokine signaling mediates the excitability of DRG neurons in painful diabetic neuropathy. B. BHATTACHARYYA*; D. M. MENICHELLA; D. REN; R. J. MILLER. *Northwestern Univ., Feinberg Sch. of Medicine, Northwestern Univ.*

10:00 OO1 **166.03** Blood-nerve barrier dysfunction contributes to the generation of neuropathic pain and allows targeting of injured nerves for pain relief. T. LIM*; X. Q. SHI; H. C. MARTIN; H. HUANG; J. ZHANG. *McGill Univ., Mem. Univ. of Newfoundland.*

11:00 OO2 **166.04** Leukotriene enhances NMDA induced inward currents in dorsal horn neurons of rat spinal cord after peripheral nerve injury. Y. KIYOYUKI*; H. YAMANAKA; K. KOBAYASHI; M. OKUBO; K. NOGUCHI; W. TANIGUCHI; N. NISHIO; T. NAKATSUKA. *Hyogo Col. Of Med., Kansai Univ. of Hlth. Sci., Kansai Univ. of Hlth. Sci.*

8:00 OO3 **166.05** TNF soluble receptor mediated by HSV vector suppressed the painful behavior, TNFα, CXCR4 and SDF1, MAPkinases in an HIV gp120 pain model in rats. S. HAO*; W. ZHENG; W. HUANG; S. LIU; H. YI; R. C. LEVITT; K. A. CANDIOTTI; M. MATA; D. J. FINK. *Univ. Miami, Univ. of Michigan.*

9:00 OO4 **166.06** Behavioral and immune studies of neuropathic pain from infancy to adolescence. G. A. BARR*; S. WANG; J. CHENG; K. BASS; C. L. WEISSHAAR; B. A. WINKELSTEIN. *Children's Hosp. of Philadelphia, Perelman Sch. of Medicine, Univ. of Pennsylvania, Univ. of Pennsylvania.*

10:00 OO5 **166.07** The effect of IκB kinase (IKKβ) inhibition on lumbar vertebral disc herniation in rat. I. TETSUHIRO*; M. MIYAGI; N. HIROSAWA; H. KAMODA; S. OHTORI; K. TAKAHASHI. *Sanmu Med. Ctr., Grad. Sch. of Medicine, Chiba Univ.*

11:00 OO6 **166.08** Bradykinin sensitizes the transientreceptor potential vanilloid 4 (TRPV4) to cause nociception in mice: Influence on paclitaxel-induced peripheral neuropathy. R. COSTA*; M. N. MANJAVACHI; M. A. BICCA; J. B. CALIXTO. *Univ. Federal Do Rio De Janeiro, Univ. Federal de Santa Catarina.*

8:00 OO7 **166.09** Effects of dextromethorphan and oxycodone on treatment of neuropathic pain in mice. P. YANG; G. YEH; P. LAW; H. LOH; P. TAO*. *Taipei Med. Univ., Natl. Def. Med. Ctr., Univ. of Minnesota, Minneapolis, Natl. Hlth. Res. Inst.*

9:00 OO8 **166.10** Spinal microglia mediate the modulation in the GABAA receptor antagonist induced allodynia. M. YOSHIDA; O. NAKANISHI*; K. ISHIKAWA; D. MIURA; H. SASAKI; S. YASUDA; Y. IDA; Y. IWANAGA; S. WATANABE; T. ISHIKAWA. *Yamaguchi Univ. Grad. Sch. of Med., Kyushu Dent. Univ., Supporting Ctr. of Dent., Sapporo Med. Univ., Fukuoka Tokushukai Hosp., Yamaguchi Prefecture Med. center.*

10:00 OO9 **166.11** The role of CCL2 and TNF-alpha in modulation of spinal cord synaptic transmission in naïve and neuropathic rats. D. SPICAROVA*; V. NERANDZIC; P. MROZKOVA; P. ADAMEK; J. PALECEK. *Acad. of Sci. of the Czech Republic, Inst. of Physiol.*

11:00 OO10 **166.12** The role of leukocyte accumulation and diminished spinal IL-10 expression in chronic neuropathy. N. LAM; W. ORNATOWSKI; L. B. ALBERTI; J. L. WILKERSON; D. MOEZZI; M. S. SUN; S. D. CONTRI; B. N. BOWMAN; J. A. WALLACE; T. ANDERSON; J. P. NORENBERG; E. D. MILLIGAN*. *Univ. New Mexico HSC, Univ. New Mexico HSC, Univ. New Mexico HSC, Univ. New Mexico HSC.*

8:00 OO11 **166.13** Interleukin-33/ST2 receptor signaling mediates chronic constriction injury-induced neuropathic pain in mice. W. A. VERRI*; F. C. RODRIGUES; T. T. CARVALHO; G. R. SOUZA; R. CASAGRANDE; S. H. FERREIRA; J. C. ALVES-FILHO; F. Y. LIEW; T. M. CUNHA; F. Q. CUNHA; A. C. ZARPELON. *Univ. Estadual De Londrina, Univ. Estadual de Londrina, Univ. de São Paulo, Univ. of Glasgow.*

9:00 OO12 **166.14** The role of dorsal root ganglion ATF3 in persistent neuropathic pain and arthritic pain models. Q. XU*; S. SUN; T. YAKSH. *UCSD.*

10:00 OO13 **166.15** Proteolyzed myelin basic protein (MBP) peptides initiate neuropathic pain. H. LIU; A. V. CHERNOV; S. A. SHIRYAEV; A. G. REMACLE; J. DOLKAS; I. SHUBAYEV; Y. KIM; V. S. GOLUBKOV; A. Y. STRONGIN; V. SHUBAYEV*. *UCSD, VA San Diego Healthcare Syst., Sanford-Burnham Med. Res. Inst.*

POSTER

167. Somatosensory Coding: Animal Models

Theme D: Sensory and Motor Systems

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

8:00 OO14 **167.01** Large-scale cortical dynamics underlying texture discrimination in head-fixed mice. D. J. MARGOLIS*; J. L. CHEN; F. HELMCHEN. *Rutgers Univ., Univ. of Zurich.*

9:00 OO15 **167.02** Serial flow of cortical activity underlying a tactile decision in mice. N. LI*; Z. V. GUO; D. HUBER; E. OPHIR; D. GUTNISKY; J. T. TING; G. FENG; K. SVOBODA. *Janelia Farm Res. Campus, HHMI, Univ. of Geneva, MIT.*

10:00 OO16 **167.03** Spatial organization of neurons coding for complex multi-whisker features in S1bf. J. LEGER*; L. ESTEBANEZ; J. BERTHERAT; D. E. SHULZ; L. BOURDIEU. *CNRS- Ecole Normale Superieure, CNRS.*

11:00 OO17 **167.04** Striatal contribution to tactile processing in the awake rat. C. STUBBENDORFF*; A. M. J. YOUNG; T. V. GERDJIKOV. *Univ. of Leicester.*

8:00 OO18 **167.05** Source localization of somatosensory-motor circuit in mice. C. LEE; D. SIN; S. LEE; E. HWANG; B. KIM; J. CHOI*. *Korea Inst. of Sci. and Tech. (KIST), Korea Inst. of Sci. and Tech. (KIST), Korea Inst. of Sci. and Tech. (KIST).*

9:00 PP1 **167.06** An excitatory, disynaptic sensorimotor feedback circuit controls the vibrissal reflex. D. W. MATTHEWS*; T. FURUTA; M. DESCHÊNES; F. WANG; H. J. KARTEN; D. KLEINFELD. *UCSD, Kyoto Univ., Univ. Laval Robert-Giffard, Duke Univ., UCSD, UCSD.*

10:00 PP2 **167.07** Origin of cortical projections to rat brainstem whisker nuclei. S. CHAKRABARTI*; C. SCHWARZ. *Werner Reichardt Ctr. For Integrative Neurosci., Hertie Inst. for Clin. Brain Research, Univ. of Tübingen.*

11:00 PP3 **167.08** Rat whisking development is correlated with differential neuronal activation in the barrel cortex and superior colliculus. M. LERICHE*; K. ARKLEY; B. O'CONNOR; P. REDGRAVE; T. PRESCOTT. *The Univ. of Sheffield.*

8:00 PP4 **167.09** Efferent modulation in the mechanosensory lateral line of the larval zebrafish. I. ODSTRCIL*; I. H. BIANCO; F. ENGERT. *Harvard Biol. Labs.*

9:00 PP5 **167.10** Roles of proprioception in pectoral fin locomotion. R. WILLIAMS, IV; M. E. HALE*. *Univ. Chicago.*

10:00 PP6 **167.11** Spinoreticular tract neurons: the srt as a component of an ascending-descending control loop. Z. HUMA*; D. J. MAXWELL. *Univ. of Glasgow, university of Glasgow.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 PP7 **167.12** Optogenetic modulation of vibrissal somatosensory cortex via motor and thalamic inputs. E. K. PURCELL*; J. M. DALY; A. MOHEBI; M. ZORATTI; K. OWEISS. *Michigan State Univ.*

POSTER

168. Spinal Cord I

Theme D: Sensory and Motor Systems

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

8:00 PP8 **168.01** A combination of peripheral nerve grafts, aFGF, and Chondroitinase ABC promotes regeneration and improvements in bladder function after chronic contusive thoracic spinal cord injury in adult rats. M. DEPAUL; C. LIN; K. PARK; J. SILVER; Y. LEE*. *Case Western Reserve Univ., Cleveland Clin.*

9:00 PP9 **168.02** Electrophysiological characterization of spinal cord in C4/C5 hemisected common marmosets. T. SEKIGUCHI*; T. KONDO; K. YOSHINO-SAITO; Y. YOSHIHARA; A. KOSUGI; M. NAKAMURA; H. J. OKANO; J. USHIBA; Y. NISHIMURA; H. OKANO; T. ISA. *Keio University, Grad. Sch. of Sci. and Technol., Keio Univ. Sch. of Med., Keio Univ. Sch. of Med., Jikei Univ. Sch. of Med., Keio Univ. Fac. of Sci. and Technol., Natl. Inst. for Physiological Sci.*

10:00 PP10 **168.03** AAV10 based gene therapy to neutralize inhibitory action of NG2 and deliver neurotrophin NT-3, improves function following thoracic contusion and hemisection lesion spinal cord injuries. H. A. PETROSYAN*; A. S. HUNANYAN; V. ALESSI; S. SANDLER; J. M. LEVINE; V. L. ARVANIAN. *Stony Brook Univ., VA Med. Ctr.*

11:00 PP11 **168.04** Comparing the efficacy and specificity of epidural, subdural and intraspinal stimulation of the cervical enlargement. A. SHARPE; A. JACKSON*. *Inst. of Neurosci., Newcastle Univ.*

8:00 PP12 **168.05** A propriospinal relay bridges brainstem reticular commands around a cervical incomplete spinal cord injury. A. ENGMANN*; L. FILLI; L. BACHMANN; B. ZÖRNER; O. WEINMANN; M. GULLO; R. SCHNEIDER; M. E. SCHWAB. *Univ. Zürich, Brain Res. Inst., Univ. Hosp. Zürich.*

9:00 PP13 **168.06** Intrathecal acetyl-l-carnitine protects tissue and improves function after a mild contusive spinal cord injury in rats. E. E. EWAN*; T. HAGG. *Univ. of Louisville.*

10:00 PP14 **168.07** Inhibition of NADPH oxidase activation by apocynin reduces spinal cord white matter damage and behavioral deficits in a murine MOG-induced multiple sclerosis model. B. CHOI*; J. KIM; H. KIM; J. YOO; M. SOHN; S. SUH. *Hallym University, Col. of Med., Inha Univ.*

11:00 PP15 **168.08** Development and characterization of a novel spinal cord contusion model in non-human primates. E. A. SALEGIO*; W. CAMISA; E. S. ROSENZWEIG; S. C. STRAND; R. MOSEANKO; S. HAWBECKER; Y. S. NOUT; X. MA; A. R. FERGUSON; C. J. SPARREY; H. TAM; J. LEASURE; J. M. BUCKLEY; V. R. EDGERTON; M. H. TUSZYNSKI; M. S. BEATTIE; J. C. BRESNAHAN. *UCSF, Brain and Spinal Injury Ctr., Taylor Collaboration, UCSD, California Natl. Primate Res. Center, UCDavis, California State Polytechnic Univ., Simon Fraser Univ., Univ. of Delaware, UCLA.*

8:00 PP16 **168.09** Three dimensional motion analysis of food retrieval movement in common marmosets with cervical hemisection. M. TAKEMI*; T. KONDO; K. YOSHINO-SAITO; T. SEKIGUCHI; A. KOSUGI; H. J. OKANO; H. OKANO; J. USHIBA. *Keio Univ. Grad. Sch. of Sci. and Technol., Keio Univ. Sch. of Med., JSPS Res. Fellow, Jikei Univ. Sch. of Med., Keio Univ. Fac. of Sci. and Technol.*

9:00 PP17 **168.10** Spinal electro-magnetic stimulation improves synaptic plasticity in contusive spinal cord in an activity-dependent manner. H. A. PETROSYAN; A. S. HUNANYAN; V. ALESSI; S. SANDLER; J. M. LEVINE; V. L. ARVANIAN*. *VA Med. Ctr., Stony Brook Univ.*

10:00 PP18 **168.11** ▲ Effect of transplant the bone marrow stromal cells over axonal regeneration and locomotor recovery in adult rats with transection and chronic spinal cord injury. V. BUZOIANU ANGUIANO*; S. OROZCO SUAREZ; S. CABALLERO CHACÓN; I. GRIJALVA OTERO. *HOME, INSTITUTO MEXICANO DEL SEGURO SOCIAL HOSPITAL DE ESPECIALIDADES CMN SIGLO XXI, INSTITUTO MEXICANO DEL SEGURO SOCIAL HOPITAL DE ESPECIALIDADES CMN SIGLO XXI, UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO FACULTAD DE MEDICINA VETERINARIA Y ZOOTECNIA, INSTITUTO MEXICANO DEL SEGURO SOCIAL CMN SIGLO XXI HOSPITAL DE ESPECIALIDADES.*

11:00 PP19 **168.12** Conditional deletion of PTEN after a spinal cord injury enhances CST axon regeneration and motor function recovery in mice. C. A. DANILOV*; O. STEWARD. *Univ. of California Irvine.*

8:00 PP20 **168.13** ▲ Human neural stem cells expressing VEGF in rat spinal cord injury model. J. AN*; S. S. CHOI; I. J. LIM; S. W. PARK; H. J. LEE; S. U. KIM. *Chung-Ang Univ., Chung-Ang Univ., Chung-Ang Univ., Chung-Ang Univ., Univ. of British Columbia.*

9:00 PP21 **168.14** Monkey corticospinal tract (CST) originating from somatosensory cortex is key to recovery following spinal cord injury. C. J. DARIAN-SMITH*; A. LILAK; J. GARNER; K. IRVINE. *Stanford Univ. Sch. of Med.*

10:00 PP22 **168.15** Morphine self-administration is reduced in the acute, but not chronic phase of SCI. S. A. WOLLER*; J. MALIK; M. ACEVES; M. A. HOOK. *Texas A&M Univ.*

11:00 PP23 **168.16** Plasticity of VGLUT 1 positive synapses within the spinal cord following dorsal root reimplantation with fibrin sealant associated with bone marrow mononuclear cells. S. U. BENITEZ; R. BARBIZAN; R. S. FERREIRA, Jr.; B. BARRAVIERA; A. M. GOES; A. L. OLIVEIRA*. *Univ. of Campinas - Lab. of Nerve Regeneration, CEVAP - Unesp, UFMG.*

8:00 PP24 **168.17** Analysis of descending raphespinal 5-HT fibers/terminals following chronic hemisection of the non-human primate spinal cord. E. J. ARROYO*; K. L. LANKFORD; M. SASAKI; X. WANG; S. STRITTMATER; J. D. KOCSIS. *VA CT Healthcare Syst., Yale Univ. Sch. of Med., Sapporo Med. Univ. Sch. of Med.*

9:00 QQ1 **168.18** Functional outcome measures correlate with larger cortical activity in individuals with incomplete spinal cord injury. K. SHARP*; R. GRAMER; S. KIM; S. PAGE; S. CRAMER. *UCI, Univ. of California, Univ. of California, Ohio State Univ., Univ. of California.*

10:00 QQ2 **168.19** Neuroprotective effects of mesenchymal stem cells on spinal motoneurons following proximal axotomy. A. B. SPEJO*; J. L. CARVALHO; A. M. GOES; A. L. R. OLIVEIRA. *Univ. of Campinas, UFMG.*

11:00 QQ3 **168.20** the transplantation of neural stem cells overexpressing arginine decarboxylase alleviate tissue damage and improve locomotor activity incontused mouse compression spinal cord injury model. Y. PARK; K. BOKARA; K. PARK; J. LEE; W. LEE*. *Yonsei Univ. Col. of Med.*

8:00 QQ4 **168.21** Recoveries from dorsal column lesions of the spinal cord may be mediated by other spinal cord pathways. C. LIAO*; O. GHARBAWIE; H. QI; J. KAAS. *Vanderbilt Univ., Vanderbilt Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 QQ5 **168.22** Corticospinal tract plasticity contributes to functional motor recovery after C4/5 lateral hemisection in common marmosets. T. KONDO*; K. YOSHINO-SAITO; M. TAKEMI; T. SEKIGUCHI; A. KOSUGI; Y. YOSHIHARA; Y. NISHIMURA; T. ISA; H. J. OKANO; M. NAKAMURA; J. USHIBA; H. OKANO. *Dept. of Physiol. Keio University, Sch. of Med., Dept. of Physiol., Keio Univ. Sch. of Med., Tokyo, Japan JSPS Res. Fellow, Keio Univ. Grad. Sch. of Sci. and Technol., Dept. of Physiology, Natl. Inst. for Physiological Sci., Div. of Regenerative Medicine, Jikei Univ. Sch. of Med., Dept. of Orthopedics Surgery Keio University, Sch. of Med., Keio Univ. Fac. of Sci. and Technol.*

10:00 QQ6 **168.23** Synaptic structural plasticity in motor cortex during recovery from spinal cord injury. R. J. KAST*; M. G. FRANTZ; J. I. PARK; H. M. DORTON; K. S. CHAPMAN; A. W. MCGEE. *Saban Res. Institute, Children's Hosp. Los Angeles, Keck Sch. of Meicine, USC.*

11:00 QQ7 **168.24** VGLUT2 expression in the dorsal column nuclei of the brainstem is altered after dorsal column section in primates. H. X. QI*; C. LIAO; J. L. REED; J. H. KAAS. *Vanderbilt Univ.*

8:00 QQ8 **168.25** Tamoxifen promotes neuroprotective effects and locomotion recovery after partial spinal cord injury in adults cats. B. DE LA TORRE*; N. E. FRANCO; J. R. LÓPEZ; I. JIMÉNEZ; J. BANUELOS; L. P. OSUNA; M. J. DUENAS; S. H. DUENAS. *UNIVERSIDAD DE GUADALAJARA, UNIVERSIDAD DE GUADALAJARA, CINVESTAV IPN, CUCBA, UNIVERSIDAD DE GUADALAJARA.*

9:00 QQ9 **168.26** Effect of the combined lithium and noggin treatment on the responses of neural progenitor cells and functional recovery after chronic spinal cord injury in adult mice. Y. DAI*; Y. PAN; H. K. F. YIP. *The Univ. of Hong Kong, The State Key Lab. of Brain and Cognitive Sci., Res. Ctr. of Heart, Brain, Hormone & Healthy Aging.*

10:00 QQ10 **168.27** Neuron response properties in area 3b are nearly normal after behavioral recovery from dorsal column lesions of the spinal cord in monkeys. J. L. REED*; H. QI; O. A. GHARBAWIE; C. LIAO; J. H. KAAS. *Vanderbilt Univ.*

11:00 QQ11 **168.28** NG2 cells contribute to the astroglial scar after contusive spinal cord injury. D. LEE*; A. HACKETT; A. DAWOOD; P. TSOULFAS; K. PARK; J. LEE. *Univ. of Miami Miller School/ Miami Project.*

POSTER

169. Motor Pattern Generation: Invertebrate Models I

Theme D: Sensory and Motor Systems

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

8:00 QQ12 **169.01** Homologues of interneurons in two different species have distinct functions in the generation of similar rhythmic motor patterns. A. SAKURAI*; P. S. KATZ. *Georgia State Univ.*

9:00 QQ13 **169.02** Three central pattern generators containing homologous neurons use different mechanisms to produce analogous behaviors. C. A. GUNARATNE*; A. SAKURAI; P. S. KATZ. *Neurosci. Institute, Georgia State Univ.*

10:00 QQ14 **169.03** Spiking induces widespread increases in $[Ca^{2+}]i$ that are correlated with synaptic short term facilitation. B. C. LUDWAR*; E. C. CROPPER. *Mount Sinai Sch. of Med.*

11:00 QQ15 **169.04** Gastropod interneurons: Thirty-seven years of Helisoma buccal interneurons. A. MURPHY*. *Univ. Illinois, Chicago.*

8:00 QQ16 **169.05** ▲ Identified aminergic neurons in Biomphalaria glabrata, an intermediate host for human intestinal schistosomiasis. L. O. VAASJO; N. DELGADO; M. W. MILLER*. *Inst. Neurobio., Univ. of Puerto Rico Sch. of Med.*

9:00 QQ17 **169.06** VSD imaging and cluster analysis reveal a novel population of putative multifunctional neurons. E. S. HILL*; J. WANG; D. MARUYAMA; M. ZOCHOWSKI; W. N. FROST. *Rosalind Franklin Univ., Univ. of Michigan.*

10:00 QQ18 **169.07** Intrinsic oscillatory mechanisms and their operant learning-induced plasticity in buccal motor pattern-initiating neurons of *Aplysia.* A. BÉDÉCARRATS*; Q. LADE; J. SIMMERS; R. NARGEOT. *Univ. Bordeaux, CNRS UMR 5287, INCIA, Univ. Paris Diderot, CNRS UMR 7219.*

11:00 QQ19 **169.08** Cellular mechanisms of behavioral switching in the feeding system of Lymnaea. M. CROSSLEY*; K. STARAS; G. KEMENES. *The Univ. of Sussex.*

8:00 QQ20 **169.09** Mechanistic analysis of CPG models for legged robotic control. M. KLEIN; A. J. HUNT; R. D. QUINN*. *Case Western Reserve Univ.*

9:00 QQ21 **169.10** Analysis of an inter-segmental MN-CPG network model with n-CPGs and its application to multi-legged locomotion. M. J. GRABOWSKA*; T. I. TÓTH; S. DAUN-GRUHN. *Univ. of Cologne.*

10:00 QQ22-DP6 **169.11** A robotic leg modeled after Blaberus discoidalis controlled by a neural simulation produces adaptive walking and stable transitions. M. A. KLEIN*; N. S. SZCZECINSKI; R. E. RITZMANN; R. D. QUINN. *Case Western Reserve Univ., Case Western Reserve Univ.*

11:00 QQ23 **169.12** Coordination of flexible arms in the crawling behavior of the octopus. G. LEVY; B. HOCHNER*. *Hebrew Univ.*

8:00 QQ24 **169.13** Bursting-to-silence transitions are suppressed in half-center oscillator motif. W. H. BARNETT*; A. GOMEZ-LUGO; G. CYMBALYUK. *Georgia State Univ.*

9:00 QQ25 **169.14** Physical therapy in an invertebrate model facilitates locomotor recovery after nerve cord injury. C. M. HARLEY; M. REILLY; C. SCHLEGEL; S. M. A. J. HAIDER; K. A. MESCE*. *Univ. Minnesota, Univ. Minnesota.*

10:00 QQ26 **169.15** Praying mantises track moving prey with body turns mediated by proprioceptive and visual input. N. S. SZCZECINSKI; J. P. MARTIN; A. G. VARGA; R. E. RITZMANN*. *Case Western Reserve Univ., Case Western Reserve Univ.*

11:00 RR1 **169.16** Central complex control of locomotion in the freely-walking cockroach. J. P. MARTIN*; P. GUO; A. J. POLLACK; R. E. RITZMANN. *Case Western Reserve Univ., Case Western Reserve Univ.*

8:00 RR2 **169.17** Is the ellipsoid body controlling the temporal structure of spontaneous yaw turning behavior in *Drosophila?* S. RAJA*; B. BREMBS. *FU Berlin- Neurobio., Univ. Regensburg,.*

9:00 RR3 **169.18** A neuro-mechanical model for *Drosophila* larval locomotion. C. PEHLEVAN*; P. PAOLETTI; L. MAHADEVAN. *Harvard Univ., Univ. of Liverpool.*

10:00 RR4 **169.19** Pharmacological properties and permeability characterization of *Aplysia* bag cell neuron electrical synapses. Z. DARGAEI*; N. S. MAGOSKI. *Queen's Univ.*

11:00 RR5 **169.20** Genetic dissection of octopamine action in reward-related behavior and motor control in *Drosophila.* C. DAMRAU*; B. BREMBS; J. COLOMB. *Freie Univ. Berlin, Univ. Regensburg.*

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POSTER

170. Basal Ganglia: Neurotransmitters and Neuromodulation

Theme D: Sensory and Motor Systems

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

8:00 RR6 **170.01** Dopamine agonists pramipexole and ropinirole are more potent at altering motivated motor behavior than reducing motor deficits associated with Parkinson's disease. S. TEDFORD*; A. PERSONS; T. C. NAPIER. *Dept. of Pharm., and Ctr. for Compulsive Behavior and Addiction, RUSH Univ., Dept. of Pharm., and Ctr. for Compulsive Behavior and Addiction, RUSH Univ.*

9:00 RR7 **170.02** Immunocytochemical characterization of the subthalamic nucleus in humans. A. ALKEMADE*; R. BALESAR; B. U. FORSTMANN. *Univ. of Amsterdam.*

10:00 RR8 **170.03** Traumatic brain injury: Utilizing deep brain stimulation to enhance recovery. H. KATNANI*; J. YANG; J. P. ARONSON; E. N. ESKANDAR. *Massachusetts Gen. Hosp.*

11:00 RR9 **170.04** Studying the Ras-ERK pathway through a new experimental approach based on single-cell analysis in adult striatal slices. I. MORELLA*; R. BRAMBILLA. *Ospedale San Raffaele.*

8:00 RR10 **170.05** CaMKII-D3 interaction in striato-nigral pathway. S. LOYA*; M. RODRÍGUEZ; S. ALBARRÁN; D. ERLIJ; C. VELÁZQUEZ; J. ACEVES; B. FLORÁN. *Ctr. De Investigación Y Estudios Avanzados Del Inst. Politécnico Nacional, Ctr. de Investigación y Estudios Avanzados del Inst. Politécnico Nacional, Ctr. de Investigación y Estudios Avanzados del Inst. Politécnico Nacional, Sunny Downstate Med. Ctr.*

9:00 RR11 **170.06** Acetylcholine exerts a volumic and synaptic influence on pallidal neurons and their afferent connections in primates. L. EID*; A. PARENT; M. PARENT. *Univ. Laval.*

10:00 RR12 **170.07** Role of tetorahydrobiopterin in the developmental augmentation of dopamine content and tyrosine hydroxylase protein level in the brain. D. HOMMA*; S. KATOH; H. ICHINOSE. *Dept. of Life Science, Tokyo Inst. of Technol., Sch. of Dentistry, Meikai Univ.*

11:00 RR13 **170.08** Effect of D3 dopamine receptor tolerance property on locomotor activity. S. R. COTE; E. V. KUZHIKANDATHIL*. *UMDNJ -New Jersey Med. Sch., UMDNJ -New Jersey Med. Sch.*

8:00 RR14 **170.09** Iron gradients in the subthalamic nucleus in the *in-vivo* and postmortem brain. B. U. FORSTMANN*; M. KEUKEN; P. BAZIN; G. DE HOLLANDER; M. WEISS; J. NEUMANN; K. REIMANN; M. WAEHNERT; R. TURNER; A. SCHAEFER. *Univ. of Amsterdam, Max Planck Inst. for Human Cognitive and Brain Sci., Max Planck Inst. for Human Cognitive and Brain Sci.*

9:00 RR15 **170.10** Behavioral effects of dopamine receptor inactivation in the adolescent rat: Role of the dorsal striatum. J. M. VALENTINE; D. E. HUMPHREY; A. E. GONZALEZ; C. B. WIDARMA; S. A. MCDOUGALL*. *California State Univ.*

POSTER

171. Finger and Grasp Control: Age, Pathology, and Physiology

Theme D: Sensory and Motor Systems

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

8:00 RR16 **171.01** Patterns of inhibition and facilitation between dominant and non-dominant hemispheres of both right and left handed individuals. L. HOLLAND; B. A. MURPHY*; J. BAARBÉ; R. CHUNG; P. YIELDER. *Univ. of Ontario Inst. of Technol.*

9:00 RR17 **171.02** Low frequency oscillations in force control: Chronic stroke versus age-matched controls. J. H. CAURAUGH*; N. LODHA; G. MISRA; S. A. COOMBES; E. A. CHRISTOU. *Univ. of Florida.*

10:00 RR18 **171.03** Age-related differences in low frequency oscillations of the FDI muscle. T. L. ONUSHKO*; O. GOMEZ; E. CHRISTOU. *Univ. of Florida.*

11:00 RR19 **171.04** Age-related changes in grasping to use and grasping to move common objects: A kinematic analysis. E. AMBRON*; A. CICERALE; A. LINGNAU; R. RUMIATI. *SISSA, CIMeC, Univ. of Trento.*

8:00 RR20 **171.05** Characterizing transient activation hypertonia during a handgrip force tracking task in cervical myelopathy. N. AU YONG*; S. I. LEE; R. GETACHEW; J. KIMBALL; M. SARRAFZADEH; D. C. LU. *David Geffen Sch. of Med. At UCLA, Univ. of California Los Angeles, David Geffen Sch. of Med. At UCLA.*

9:00 RR21 **171.06** Recovery from learned nonuse is similar after unilateral lesions to motor and sensorimotor areas of the brain in Macaca mulatta. W. G. DARLING*; M. A. PIZZIMENTI; D. L. ROTELLA; J. GE; K. S. MORECRAFT; R. J. MORECRAFT. *Univ. Iowa, Univ. Iowa, Univ. of Iowa, Univ. of South Dakota.*

10:00 RR22 **171.07** Effects of thumb and index finger fatigue on the biomechanics and synergies of a prehension task reflect a complex control strategy. T. SINGH*; V. ZATSIORSKY; M. LATASH. *Cleveland Clin., The Pennsylvania State Univ.*

11:00 RR23 **171.08** Age-related differences in bimanual coordination are based on less stable coordination patterns and longer correction times. S. VIELUF*; B. GODDE; E. REUTER; C. VOELCKER-REHAGE. *Saarland Univ., Jacobs Univ. Bremen.*

8:00 RR24 **171.09** Beta-band intermuscular coherence in amyotrophic lateral sclerosis/motor neuron disease. M. R. BAKER*; S. R. JAISER; S. N. BAKER; T. L. WILLIAMS. *Newcastle Univ., Newcastle upon Tyne Hosp. NHS Trust, Newcastle upon Tyne Hosp. NHS Trust.*

9:00 RR25 **171.10** Monosynaptic group Ia excitation in first dorsal interossei (FDI) muscles during various manipulation tasks in man. K. SEKI*; T. NAKAJIMA; G. KIM. *Natl.inst. Neurosci., Natl. Inst. for Physiological Sci., Japan Sci. and Technol. Agency JST, Kyorin Univ. Sch. of Med.*

10:00 RR26 **171.11** The influence of age and stroke on startle elicited hand extension: Implications for therapy and neural control. C. F. HONEYCUTT*; U. A. TRESCH; E. J. PERREAULT. *Rehabil. Inst. of Chicago, Inst. of Biomechanics, ETH, Northwestern Univ.*

11:00 SS1 **171.12** Neural mechanisms of bimanual grasping revealed by a partially acallosal patient. A. LE*; M. NIEMEIER. *Univ. of Toronto Scarborough, Univ. of Toronto Scarborough.*

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8:00 SS2 **171.13** The age-associated exacerbation of force variability with high-gain visual feedback is not due to perceptual speed. C. KIM*; L. JECK; R. AHEARN; S. STEPHENSON; E. CHRISTOU. *Univ. of Florida.*

9:00 SS3 **171.14** Joint kinematic and EEG features of a haptic reaching task incorporating online perturbation. X. CHEN; J. SNIDER*; Z. J. WANG; M. J. MCKEOWN; H. POIZNER. *Univ. of British Columbia, UCSD.*

POSTER

172. Reaching Control: Action and Sensation

Theme D: Sensory and Motor Systems

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

8:00 SS4 **172.01** Optimal use of fingertip tactile information during movement. P. BARADUC*; P. MOREL; J. PIERRE. *Cognitive Neurosci. Centre, CNRS / U.Lyon UMR 5229, Cognitive Neurosci. Ctr.*

9:00 SS5 **172.02** An internal copy of spinal premotor activity conveyed by V2a propriospinal interneurons updates reaching movements. E. AZIM*; J. JIANG; B. ALSTERMARK; T. M. JESSELL. *Depts. of Neurosci. and Biochem. and Mol. Biophys., Columbia Univ., Dept. of Integrative Med. Biology, Section of Physiology, Umeå Univ.*

10:00 SS6 **172.03** Effects of postural conditions on preferential hand use by common marmosets. Y. YAMAZAKI*; T. HASHIMOTO; A. IRIKI. *Keio Univ., RIKEN Brain Sci. Inst.*

11:00 SS7 **172.04** Short-latency torque response to external perturbation during complex arm reaching movements. L. ZHANG; T. EGGERT; A. STRAUBE; U. R. BUTTNER*. *Dept. of Neurology, LMU Munich, Univ. Munchen.*

8:00 SS8 **172.05** ▲ Effects of menstrual cycle phase on upper limb position sense in young women. M. B. AARON; A. L. BERY; K. L. KERN; S. H. BROWN*. *Univ. of Michigan.*

9:00 SS9 **172.06** How do motor and social characteristics of individuals affect interpersonal organization on goal-directed joint actions? M. O. ABE*; K. WATANABE. *The Univ. of Tokyo / Res. Ctr. For Advanced Sci. and Technol., Japan Sci. and Technol. Agency.*

10:00 SS10 **172.07** Inter-limb transfer of information induces a visual representation of a purely kinaesthetic task only if target and hand cannot be compared directly in joint space. M. TAGLIABUE*; J. MCINTYRE. *Univ. Paris Descartes.*

11:00 SS11 **172.08** Can a frequency band approach induce noise during simultaneous agonist/antagonist tendon vibration at the elbow joint? T. I. GONZALES*; D. GOBLE. *San Diego State Univ.*

8:00 SS12 **172.09** The representation of sensorimotor uncertainty in motor and dorsal premotor cortex of non-human primates. P. A. WANDA*; B. M. DEKLEVA; K. P. KOERDING; L. E. MILLER. *Northwestern Univ., Northwestern Univ., Rehabil. Inst. of Chicago.*

9:00 TT1 **172.10** Alteration of predicted state modulates fast force responses to perturbations: Evidence for optimal feedback control in the motor system. T. HAYASHI*; A. YOKOI; M. HIRASHIMA; D. NOZAKI. *Grad Sch. Educ.*

10:00 TT2 **172.11** Saccade direction influences reaching movements in eye-hand coordination. Y. NAKASHIMA*; K. FUKUZAWA. *Waseda University, Psychology Dept.*

11:00 TT3 **172.12** Acceleration time differs when pointing to remembered targets in darkness. C. SOEBBING; A. FRENCH; J. M. HONDZINSKI*. *Louisiana State Univ.*

8:00 TT4 **172.13** The influence of threat on movement control under risk. M. K. O'BRIEN*; A. A. AHMED. *Univ. of Colorado Boulder, Univ. of Colorado Boulder.*

9:00 TT5 **172.14** Impacts of delayed visual feedback and visual collision on perception of resistive force applied during reaching movements. S. TAKAMUKU*; H. GOMI. *NTT Communication Sci. Labs., JST, CREST.*

10:00 TT6 **172.15** Preferred joint control strategy during redundant 3d arm movements. W. WANG*; N. DOUNSKAIA. *Arizona State Univ.*

11:00 TT7 **172.16** The role of gravity in joint control during 3D Arm Movements. A. W. VAN GEMMERT*; W. WANG; N. DOUNSKAIA. *Louisiana State Univ., Arizona State Univ.*

8:00 TT8 **172.17** Inter-segmental dynamics shape control of catching movement in typically developing children but not in children with Developmental Coordination Disorder. N. DOUNSKAIA*; M. J. ASMUSSEN; E. P. PRZYSUCHA. *Arizona State Univ., McMaster Univ., Lakehead Univ.*

9:00 TT9 **172.18** The value of effort: A neuroeconomic study of metabolic cost in movement decision making. E. M. SUMMERSIDE; M. K. O'BRIEN; A. A. AHMED*. *Univ. Colorado.*

10:00 TT10 **172.19** State estimation model explains perceived fatigue modulation by preceding and delayed visual feedback. S. ITO*; T. KIMURA; H. GOMI. *NTT Communication Sci. Labs.*

POSTER

173. Evolution and Comparative Anatomy I

Theme D: Sensory and Motor Systems

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

8:00 TT11 **173.01** Visual processing in the medicinal leech: More than meets the eye. C. M. HARLEY*; K. A. MESCE. *Univ. of Minnesota.*

9:00 TT12 **173.02** Neurochemically distinct regions within the forebrain of the elephant shark (Callorhinchus milii) suggest evolutionary conservation. L. L. BRUCE*; C. R. DEVRIES; E. GARZA-GISHOLT; S. P. COLLIN. *Creighton Univ., The Univ. of Western Australia.*

10:00 UU1 **173.03** Ascending general visceral sensory pathways from the commissural nucleus of Cajal in goldfish. S. UEZONO; Y. YAMADA; H. ABE*; N. YAMAMOTO. *Nagoya Univ.*

11:00 UU2 **173.04** Brain atlas of goldfish. R. OU; T. KATO; N. YAMAMOTO*. *Lab. Fish Biol, Grad Sch. Bioagr Sci, Nagoya Univ.*

8:00 UU3 **173.05** Immunohistochemical localization of cocaine- and amphetamine-regulated transcript peptide in the brain of the pigeon (Columba livia) and zebra finch (Taeniopygia guttata). C. GUTIERREZ-IBANEZ*; M. JENSEN; A. N. IWANIUK; D. R. WYLIE. *Univ. Alberta, Univ. of Lethbridge, Univ. Alberta.*

9:00 UU4 **173.06** B10K Project: A plan to sequence the genome of nearly all 10,000 bird species and development of a database for interrogating trait evolution including neurobehavioral traits. C. PARENT*; E. D. JARVIS; G. GRAVES; C. RABEK; F. LEIFM; J. T. HOWARD; T. GILBERT; G. ZHANG. *Duke Univ. Med. Ctr., Duke Univ., Smithsonian, Univ. of Copenhagen, Chinese Acad. of Sci., Univ. of Copenhagen, Natural History Museum of Denmark, BGI.*

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10:00 UU5 **173.07** Subcortical connections of the superior colliculus and VGLUT2 staining in short-tailed opossums (Monodelphis domestica). M. K. BALDWIN*; H. NGUYEN; D. SEKIZAKI; L. A. KRUBITZER. *Univ. of California Davis, Univ. of California Davis.*

11:00 UU6 **173.08** Modular organization of sensory neocortex in the nine-banded armadillo (Dasypus novemcinctus). J. RYLEE*; J. FLETCHER; J. PADBERG. *Univ. of Central Arkansas.*

8:00 UU7 **173.09** Afferent and efferent cortical connections of the rostral forelimb area in rat. E. T. URBAN, III; M. NISHIBE; H. S. BARBAY; D. J. GUGGENMOS; R. J. NUDO*. *Univ. Kansas Med. Ctr., Univ. of Osaka, Univ. Kansas Med. Ctr.*

9:00 UU8 **173.10** Strength in numbers: Behavioral specialization, neuron number, and neuron density in three carnivore species. B. M. ARSZNOV*; S. T. SAKAI. *Michigan State Univ., Michigan State Univ.*

10:00 UU9 **173.11** Out of the den and into the pack: A computed tomography study of brain development in Canis lupus. B. A. WHITT*; B. M. ARSZNOV; B. L. LUNDRIGAN; S. T. SAKAI. *Michigan State Univ., Michigan State Univ., Michigan State Univ.*

11:00 UU10 **173.12** The promising puddles of the claustrum. J. I. JOHNSON*; B. A. FENSKE. *Michigan State Univ.*

8:00 UU11 **173.13** An analysis of von Economo neurons in the cerebral cortex of cetaceans, artiodactyls, and perissodactyls: Emerging evidence for a phylogenetically ancient neuron type. M. RAGHANTI*; L. B. SPURLOCK; F. R. TREICHLER; N. T. HEINRICHS; J. C. GEORGE; R. STIMMELMAYR; C. BUTTI; J. G. M. THEWISSEN; P. R. HOF. *Kent State Univ., Kent State Univ., Kent State Univ., North Slope Borough, Icahn Sch. of Med. at Mount Sinai, Northeast Ohio Med. Univ.*

9:00 UU12 **173.14** The two great species peaks in brain mass on our planet, sperm whales and killer whales, show extreme differences in cerebellar quotient. S. H. RIDGWAY*; A. C. HANSON. *Natl. Marine Mammal Fndn.*

10:00 UU13 **173.15** Somatosensory specializations in the central nervous system of rock hyraxes (Procavia capensis). D. K. SARKO*; R. L. REEP. *Edward Via Col. of Osteo. Med., Univ. of Florida.*

11:00 UU14 **173.16** Neocortical architecture of manatees (Trichechus manatus). L. D. REYES*; T. HARLAND; C. C. SHERWOOD; B. JACOBS; R. L. REEP. *The George Washington Univ., Colorado Col., The George Washington Univ., Univ. of Florida.*

POSTER

174. Parental Behavior

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

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

8:00 UU15 **174.01** Maternal behavior and postpartum mood in vasopressin 1b knockout mice. S. K. WITCHEY*; M. E. RICH; H. K. CALDWELL. *Kent State Univ., Kent State Univ.*

9:00 UU16 **174.02** Phenotypic characterization of GABAergic neurons in the lateral septum, cingulate cortex and medial preoptic area of the mouse brain. C. ZHAO*; B. EISINGER; S. GAMMIE. *Univ. of Wisconsin-Madison.*

10:00 UU17 **174.03** ● Vasopressin V1b receptor mediate maternal care and maternal aggression in opposing directions. D. BAYERL*; S. M. KLAMPFL; O. J. BOSCH. *Univ. of Regensburg / Dept. of Behavioural and Mol. Neurobio.*

11:00 UU18 **174.04** Altered BOLD fMRI response to noxious and hedonic stimuli in the early postpartum maternal rat. M. K. CAFFREY*; C. F. FERRIS. *Northeastern Univ., Northeastern Univ.*

8:00 UU19 **174.05** Characterization of the transition to fatherhood in 'non-paternal' mice: Investigations into the roles of oxytocin and vasopressin. S. WILLIAMS*; W. S. YOUNG. *NIMH, Natl. Institue of Mental Hlth.*

9:00 UU20 **174.06** Differential hypothalamic expression of gonadotropin inhibitory hormone (GnIH) in response to parental initiation in birds and mammals. R. M. CALISI*; A. GERAGHTY; J. WINGFIELD; D. KAUFER; G. BENTLEY. *Univ. of California, Berkeley, Univ. of California, Davis, Univ. of California, Berkeley, Univ. of California, Berkeley.*

10:00 UU21 **174.07** The central vasopressin system facilitates maternal aggression in lactating and pup sensitized nulliparous rats. S. L. MEDDLE*; V. R. BISHOP. *The Roslin Institute, The Univ. of Edinburgh, The Roslin Institute, The Univ. of Edinburgh.*

11:00 UU22 **174.08** Effects of gestational stress on postpartum mood, maternal care and nucleus accumbens structural plasticity. A. HAIM; M. SHERER; B. LEUNER*. *The Ohio State Univ., The Ohio State Univ.*

8:00 UU23 **174.09** Pup recognition in the rat (Rattus norvegicus). A. FRANSSEN*; A. J. HAUVER; J. M. MILLS; C. L. FRANSSEN. *Longwood Univ.*

9:00 UU24 **174.10** Interactions between maternal experience and hypocretin neurotransmission affect depressive-like behavior in lactating mice. A. S. KOWALCZYK*; K. D'ANNA-HERNANDEZ. *CSU San Marcos.*

10:00 UU25 **174.11** Paternal transmission of chronic food restriction in C57BL/6 mice. R. MASHOODH*; K. M. GUDSNUK; I. B. HABRYLO; B. FRANKS; F. A. CHAMPAGNE. *Columbia Univ.*

11:00 UU26 **174.12** Effects of early rearing on later reactivity to chronic social stress in the prairie vole (Microtus ochrogaster). A. M. PERKEYBILE*; K. L. BALES. *Univ. of California-Davis.*

8:00 VV1 **174.13** Sex differences in parental behavior in mice depends on feminization of female brains, in addition to defeminization of male brains. G. MAJDIC*; N. GRGUREVIC; S. A. TOBET. *Univ. of Ljubljana, Vet. Fac., Univ. of Ljubljana, Vet. Fac., Colorado state Univ.*

9:00 VV2 **174.14** ▲ Differential effects of environmental enrichment, social housing and isolation on maternal care and juvenile offspring behavior. E. J. CONNORS; A. T. M. KONKLE; A. C. KENTNER*. *Massachusetts Col. of Pharm. & Hlth. Sci., Univ. of Ottawa.*

10:00 VV3 **174.15** Stress differentially affects hippocampal neurogenesis in virgin and pregnant female rats. J. PAWLUSKI*; H. STEINBUSCH; D. VAN DEN HOVE. *Univ. of Liege, Maastricht Univ., Univ. of Wuerzburg.*

11:00 VV4-DP7 **174.16** The effects of prenatal music on maternal behavior and offspring behavior. N. KUBOTA*; Y. TAKANO; S. YANAGITA; T. MATSUZAWA; K. TAKEDA. *Tokyo Univ. of Sci., Tokyo Univ. of Sci., Tokyo Univ. of Sci.*

8:00 VV5 **174.17** Maternal behavior differences after a mild stressor between lactating dams and sensitized virgins. M. K. MCCREARY*; K. D'ANNA-HERNANDEZ. *CSUSM.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 VV6 **174.18** Paternal attentiveness can be affected by behavioral phenotype of dam. H. KOH*; H. KIM. *Korea Inst. of Sci. & Technol., Univ. of Sci. & Technol. (UST).*

10:00 VV7 **174.19** Abnormal maternal behavior in mice lacking Phospholipase Cβ1. H. KIM*, ESQ; H. KOH. *Korea Institue of Sci. and Technol., Univ. of Sci. and Technol.*

11:00 VV8 **174.20** Nucleus accumbal dopamine signaling is involved in paternal behaviors in male prairie voles. K. LEI*; A. S. SMITH; Y. LIU; Z. WANG. *Florida State Univ.*

8:00 VV9 **174.21** Oxytocin in the medial prefrontal cortex of postpartum females modulates anxiety, maternal care and maternal aggression. S. SABIHI*; S. DONG; B. LEUNER. *The Ohio State Univ., The Ohio State Univ.*

9:00 VV10 **174.22** ● Pup ultrasonic vocalizations (USVs) has a individual signature and can trigger retrieving behavior dependently on social experience and gonadal hormones. S. OKABE*; C. TSUKAMOTO; M. NAGASAWA; M. KATO; N. KOSHIDA; K. MOGI; T. KIKUSUI. *Azabu Univ., Kato Acoustics Consalting Office, Divisiion of Electoronic and Information Engineering, Tokyo Univ. of Agr. and Technol.*

10:00 VV11 **174.23** Animal models of postpartum depression: Relationship of dopamine to depressive-like motivational symptoms and parenting dysfunction. M. PEREIRA*; S. ALSELEHDAR; M. W. SHIFLETT; A. M. FARRAR; J. I. MORRELL; J. D. SALAMONE. *Rutgers, The State Univ. of New Jersey, Rutgers, The State Univ. of New Jersey, Univ. of Connecticut.*

POSTER

175. Cellular Actions of Stress

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

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

8:00 VV12 **175.01** NMDA receptor activation mediates chronic stress-induced damage to blood-brain barrier structure and function. N. A. NORTHROP*; A. D. FERNG; R. NATARAJAN; B. K. YAMAMOTO. *Univ. of Toledo Col. of Med.*

9:00 VV13 **175.02** Chronic unpredictable stress induced loss of serotonin cells in the interfascicular region of the dorsal raphe nucleus disrupts thermoregulation. R. NATARAJAN*; N. NORTHROP; K. MUGFORD; B. YAMAMOTO. *Univ. of Toledo.*

10:00 VV14 **175.03** Vagal nerve stimulation prevents stress-induced interleukin-6-dependent cortical hyperexcitability. F. GARCIA-OSCOS; D. PEÑA; M. HOUSINI; D. CHENG; H. SALGADO; S. D'MELLO; S. ROSE-JOHN; M. P. KILGARD; M. ATZORI*. *Univ. of Texas at Dallas, Univ. Autonoma de Yucatan, Univ. of Texas at Dallas, Christian Albrecht Univ., Univ. Autónoma De San Luis Potosí.*

11:00 VV15 **175.04** ▲ Does restraint stress induce cerebral DNA repair? K. L. FORSBERG*; N. AALLING; G. WORTWEIN; S. LOFT; P. MOLLER; J. HAU; I. HAGEMAN; M. BALSLEV JOERGENSEN; A. JOERGENSEN. *Neuropsykiatrisk Lab. Psykiatrisk Ctr. Rigshospitalet, Lab. of Neuropsychiatry, Section of Envrn. Helath, Fac. of Hlth. and Med. Sci., Psychiatric Ctr. Copenhagen, Fac. of Hlth. and Med. Sci.*

8:00 VV16 **175.05** Selective serotonin reuptake inhibitors increase serotonin, but also increase norepinephrine in a predator-exposure rodent model of PTSD. B. WILSON; L. D. MCLAUGHLIN*; P. J. EBENEZER; A. NAIR; R. DANGE; D. DIAMOND; J. FRANCIS. *Louisiana State Univ. Sch. of Vet. Med., Louisiana State Univ. Sch. of Vet. Med., Univ. of South Florida, Tampa Veteran's Admin.*

9:00 VV17 **175.06** Gene expression profiling of CA3 neurons after acute and chronic stress using translating ribosomal affinity purification (TRAP). J. D. GRAY*; T. G. RUBIN; E. F. SCHMIDT; N. HEINTZ; B. S. MCEWEN. *The Rockefeller Univ., The Rockefeller Univ.*

10:00 VV18 **175.07** Stress and corticosterone regulate rat hippocampal mitochondrial chromosome gene expression via the glucocorticoid receptor. R. G. HUNTER*; M. SELIGSOHN; T. RUBIN; N. A. DATSON; D. W. PFAFF; B. S. MCEWEN. *Univ. of Massachusetts, Boston, The Rockefeller Univ., The Rockefeller Univ., The Rockefeller Univ., Leiden Univ. Med. Ctr.*

11:00 VV19 **175.08** Repeated social defeat-induced glucocorticoid resistance in CD11b+ splenocytes is associated with epigenetic modification. S. H. JUNG*; Y. WANG; A. TARR; B. F. READER; J. F. SHERIDAN. *Inst. for Behavioral Med. Research, the Wexner Med. Ctr., the Ohio State Univ.*

8:00 VV20 **175.09** Carboxypeptidase E protects hippocampal neurons during stress in male mice by up-regulating pro-survival BCL2 protein expression. Y. LOH*; E. THOUENNON; I. J. MERCHENTHALER; S. R. K. MURTHY. *NICHD, NIH, Univ. of Maryland at Baltimore, Sch. of Med.*

9:00 VV21 **175.10** Effects of serotonin on erythropoietin expression in mouse hippocampus. M. CHOI; S. WANG; H. SON*. *Hanyang Univ. Col. Med.*

10:00 VV22 **175.11** ▲ Chronic environmental noise inhibits cell proliferation in dentate gyrus of aged rats. G. CHIPRES-TINAJERO; S. LUQUIN; R. RAMOS-ZUÑIGA; P. HERNANDEZ-CARRILLO; R. GONZALES-CASTAÑEDA; A. FERIA-VELASCO; J. GARCIA-ESTRADA; J. H. FERNANDO*. *Univ. de Guadalajara, Univ. de Guadalajara, Inst. Mexicano del Seguro social.*

11:00 WW1 **175.12** Acute psychological stress induces rapid changes in both oxidative and nitrosative status. H. CHEN*; J. G. SPIERS; C. SERNIA; N. A. LAVIDIS. *The Univ. of Queensland.*

8:00 WW2 **175.13** ● Exposure to a combination of plant-derived odors reduces endocrine and oxidative indicators of psychological stress. J. G. SPIERS*; H. CHEN; C. SERNIA; N. A. LAVIDIS. *The Univ. of Queensland.*

9:00 WW3 **175.14** Stress-induced oligodendrogenesis in the adult rat hippocampus. A. R. FRIEDMAN*; S. CHETTY; D. KAUFER. *UC Berkeley, Harvard Univ., UC Berkeley, Univ. of California, Berkeley.*

10:00 WW4 **175.15** Chronic stress increases the inhibitory tone of the medial prefrontal cortex. J. M. MCKLVEEN*; J. R. SCHEIMANN; R. L. MORANO; S. N. CASSELLA; M. L. BACCEI; J. P. HERMAN. *Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Cincinnati.*

11:00 WW5 **175.16** Involvement of vascular endothelial growth factor in the medial prefrontal cortex in regulating resilience to stress. G. KELLY*; J. PEARSON-LEARY; A. SENGUPTA; B. NICHOLAS; W. HEYDENDAEL; S. LUZ; S. BHATNAGAR. *The Children's Hosp. of Philadelphia, The Children's Hosp. of Philadelphia and Univ. of Pennsylvania.*

8:00 WW6 **175.17** Western blot analysis of glucocorticoid receptor responses to repeated restraint in adult male and female rats. L. INNALA*; N. GOEL; V. VIAU. *Univ. of British Columbia.*

9:00 WW7 **175.18** Differentiation of nitric oxide synthase activation in the dorsal raphe nucleus of acute restraint stressed rats. I. S. NICHOLS*; M. I. SMITH; C. O. OKERE. *Clark Atlanta Univ., Clark Atlanta Univ.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

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10:00 WW8 **175.19** NMDA receptor activation and calpain contribute to disruption of dendritic spines by the stress neuropeptide CRH. A. L. ANDRES*; L. REGEV; L. PHI; R. SEESE; Y. NOAM; Y. CHEN; C. M. GALL; T. Z. BARAM. *Univ. of California-Irvine, Univ. of California-Irvine.*

11:00 WW9 **175.20** Electrophysiological properties and synaptic responses of pyramidal cells in a model of NPY-induced stress resilience. H. SILVEIRA VILLARROEL; J. P. MACKAY; J. H. URBAN; W. F. COLMERS*. *Fac. of Med. and Dentistry, Univ. of Alberta, Fac. of Med. and Dent. Univ. of Alberta, Chicago Med. School, Rosalind Franklin Univ., Univ. Alberta.*

POSTER

176. Stress and Cognition

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

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

8:00 WW10 **176.01** Controllable versus uncontrollable stressors bi-directionally modulate drug cue extinction. M. B. POMRENZE*; M. V. BARATTA; S. NAKAMURA; S. D. DOLZANI; D. C. COOPER. *Univ. of Colorado Boulder.*

9:00 WW11 **176.02** The protective effects of controllable stress require prelimbic activity in a temporally specific manner. M. V. BARATTA*; S. NAKAMURA; K. H. KUBALA; R. M. ALEKSEJEV; S. F. MAIER; D. C. COOPER. *Univ. of Colorado Boulder, Univ. of Colorado Boulder.*

10:00 WW12 **176.03** Postraumatic stress disorder (ptsd) by movement restriction: Clinical evidences. J. VAZQUEZ RAMIREZ*; P. ZARATE-GONZALEZ; D. SOLTERO DE LA ROSA; A. RUIZ-GARCIA; I. ROSEMBERG; H. SANCHEZ-CASTILLO. *Clave Consultora Para La Ciudadania, Univ. Nacional Autonoma de Mexico.*

11:00 WW13 **176.04** Neuropsychological implications of trauma:The origins of postraumatic stress disorder (ptsd) and complex trauma. P. ZARATE GONZALEZ*; J. VAZQUEZ-RAMIREZ; I. A. CASTILLO; H. SANCHEZ CASTILLO. *Asociacion Mexicana De Psicotraumatologia, Univ. Nacional Autonoma de Mexico.*

8:00 WW14 **176.05** Evaluating human comfort using electrophysiological responses in different indoor thermal environments. T. OKAMOTO*; S. TANAKA; T. FUTAEDA. *Kyushu Univ., Anny Group.*

9:00 WW15 **176.06** Evidence of increased blood-brain barrier permeability in soldiers during combat training. C. H. WILDER-SMITH*; X. LI; M. E. KAN; J. LU; R. WONG. *Brain-Gut Res. Group, Natl. Univ. Singapore, Combat Care Laboratory, DSO Natl. Labs.*

10:00 WW16 **176.07** DRR1 as a new molecular link between stress, synaptic plasticity and behavior. M. MASANA*; Y. SU; J. DINE; S. WESTERHOLZ; C. LIEBL; K. V. WAGNER; M. V. SCHMIDT; M. EDER; T. REIN; M. B. MÜLLER. *Max Planck Inst. of Psychiatry, Inst. of Mental Hlth.*

11:00 WW17 **176.08** Salivary amylase activity is a useful biomarker of acute and chronic stresses during rat experiments. T. MATSUURA*; R. TAKIMURA; M. YAMAGUCHI; M. ICHINOSE. *Fac Engin, Iwate Univ.*

8:00 WW18 **176.09** Preferential loss of dorsal hippocampal synapses underlies memory impairment provoked by short, multi-modal stress. Y. CHEN*; P. M. MARAS; J. MOLET; T. Z. BARAM. *Univ. Cal Irvine, UC-Irvine.*

9:00 WW19 **176.10** The hormonal correlates of posttraumatic stress disorder in female veterans. M. PIERCE*; A. KOENIG; C. ZEVALLOS; J. EGAN; M. ORLEWICZ; T. SCHUMACHER; E. HENSLEIGH; L. PRITCHARD. *Univ. of Nevada, Las Vegas.*

10:00 WW20 **176.11** Conditioning slowed respiratory rate for stress reduction in the rat. D. NOBLE*; W. N. GOOLSBY; S. HOCHMAN. *Emory Univ., Emory Univ.*

11:00 WW21 **176.12** Hippocampal dysfunctions in tumor-bearing mice. M. YANG*; J. KIM; S. KIM; J. KIM; M. KANG; T. SHIN; H. WANG; C. MOON. *Michigan State Univ., Chonnam Natl. Univ., Dongnam institute of Radiological & Med. Sci. (DIRAMS), Chonnam Natl. Univ., Jeju Natl. Univ.*

8:00 WW22 **176.13** ▲ Age, stress and coping style influence the engagement of the medial prefrontal cortex and performance during a cognitive flexibility task. M. BARRY; K. SNYDER; S. BHATNAGAR; R. J. VALENTINO*. *Children's Hosp Philadelphia.*

9:00 XX1 **176.14** Chronic social defeat in female rats produces different long-term effects on social anxiety-like behaviors depending on age. S. M. LUZ*; G. KELLY; R. VALENTINO; S. BHATNAGAR. *Children's Hosp. of Philadelphia, Children's Hosp. of Philadelphia, Children's Hosp. of Philadelphia, Univ. of Pennsylvania.*

10:00 XX2 **176.15** Downregulating hippocampal BDNF levels blocks recovery from chronic stress-induced spatial memory deficits in adult male rats. J. B. ORTIZ*; C. M. MATHEWSON; A. N. HOFFMAN; P. D. HANAVAN; N. G. LORSON; E. TERWILLIGER; C. D. CONRAD. *Arizona State Univ., Arizona State Univ., Beth Israel Deaconess Med. Ctr. and Harvard Med. Sch.*

11:00 XX3 **176.16** Humor associated mirthful laughter enhances short term memory in the elderly. G. S. BAINS*; L. BERK; N. DAHER; P. DESHPANDE; E. LOHMAN; J. PETROFSKY; E. SCHWAB. *Loma Linda Univ.*

8:00 XX4 **176.17** Stress-induced suppression of learning in females: Dissociating the contribution of prelimbic and infralimbic cortices. L. Y. MAENG*; T. J. SHORS. *Rutgers, The State Univ. of New Jersey.*

9:00 XX5 **176.18** Menstrual phase is associated with differences in brain activity during psychosocial stress. K. ALBERT*; J. PRUESSNER; T. RABINOWITZ; P. A. NEWHOUSE. *Univ. of Vermont, Ctr. for Cognitive Medicine, Vanderbilt Univ., McGill Univ. Ctr. for Studies in Aging, Univ. of Vermont Col. of Med.*

10:00 XX6 **176.19** Adaptation to chronic unpredictable threat yields resilience under testing conditions that match previous exposure to threat. M. L. JACOBSON*; R. CLOUS; M. KIM; B. CARNEY; D. KIM; P. S. COBURN-LITVAK; B. J. ANDERSON. *Stony Brook Univ., Andrew Univ.*

11:00 XX7 **176.20** Impairment of place preference conditioning by chronic stress is associated with D2 receptors over-expression. P. MORGADO*; C. R. LIMA; F. MARQUES; N. SOUSA; J. J. CERQUEIRA. *Life and Hlth. Sci. Res. Inst. (ICVS), Univ. of Minho.*

8:00 XX8 **176.21** Stress habituation and resistance to anxiety. H. E. W. DAY; C. V. MASINI; T. J. NYHUIS; R. NEWSOM; J. A. BABB; S. CAMPEAU*. *Univ. Colorado Boulder, Univ. Colorado Boulder.*

9:00 XX9 **176.22** Chronic exposure to environmental noise during development decreases in long-term the working memory. Y. RUVALCABA DELGADILLO*; G. YAÑEZ; P. HERNANDEZ; T. MORALES; F. JAUREGUI-HUERTA; F. JAUREGUI-HUERTA; J. GARCIA-ESTRADA; S. LUQUIN. *Univ. De Guadalajara, Ctr. de Investigacion Biomedica de Occidente, Univ. de Guadalajara.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

177. Thirst and Water Balance

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

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

8:00 XX10 **177.01** Characterization of a sodium-activated potassium current in acutely isolated rat supraoptic neurons. V. BANSAL; T. E. FISHER*. *Univ. Saskatchewan, Univ. Saskatchewan.*

9:00 XX11 **177.02** Hindbrain and forebrain sites contribute to the anti-dipsogenic effects of glucagon-like peptide-1. N. J. MCKAY*; D. L. AMEROSO; D. DANIELS. *Univ. At Buffalo, SUNY.*

10:00 XX12 **177.03** Estradiol treatment affects hydromineral parameters, but does not alter oxytocin (OT) secretion and oxytocinergic neuronal activation in water-deprived rats. T. VILHENA-FRANCO*; A. S. MECAWI; L. L. K. ELIAS; J. ANTUNES-RODRIGUES. *Univ. of Sao Paulo.*

11:00 YY1 **177.04** Activity of vasopressinergic and oxytocinergic cells in the hypothalamus of rats treated with carbachol combined with hydrogen peroxide into the medial septal area. M. D. R. MELO; J. V. MENANI; D. S. COLOMBARI*; E. COLOMBARI. *UNESP Sch. of Dent., UNIFESP, UNESP.*

8:00 YY2 **177.05** Effects of muscimol injections into the central nucleus of the amygdala on sucrose and meal-associated water intake. G. M. F. ANDRADE-FRANZÉ; C. A. ANDRADE*; P. M. DE PAULA; D. S. A. COLOMBARI; L. A. DE LUCA JR; J. V. MENANI. *Sch. of Dent. - FOAr - UNESP.*

9:00 YY3 **177.06** ▲ Spontaneous salt intake enhancement occurs even in the absence of hypertonic sodium chloride solution throughout a history of water deprivation. A. M. RIVERA; J. CONSTANCIO; R. C. VENDRAMINI; D. PEREIRA-DERDERIAN. *Wayland Baptist Univ., São Paulo State Univ., São Paulo State Univ.*

10:00 YY4 **177.07** Expression of c-Fos protein in medullary cells precedes the paradoxical NaCl intake of hyperosmotic rats. R. B. DAVID*; C. F. RONCARI; M. R. LAUAR; R. C. VENDRAMINI; J. ANTUNES-RODRIGUES; J. V. MENANI; L. A. DE LUCA JR. *UNESP, UNESP, USP.*

11:00 YY5 **177.08** Renal responses to chronic infusion of aldosterone into 4th ventricle. S. GASPARINI*; M. BASSI; G. M. F. ANDRADE-FRANZÉ; M. R. MELLO; J. V. MENANI; E. COLOMBARI. *Sao Paulo State University. Dep. of Physiol. and Pathology.*

8:00 YY6 **177.09** TRPA1 acts as a chemoreceptor in the rat kidney. M. MA*; Y. CHEN; H. HUANG. *Fu Jen Catholic Univ., Natl. Taiwan Univ. Hosp., Natl. Taiwan Univ. Hosp.*

9:00 YY7 **177.10** ● Dipsogenic and orexigenic effects of somatostatin analogues and cortistatin in rats. H. KARASAWA*; S. YAKABI; L. WANG; J. RIVIER; Y. TACHÉ. *UCLA, Salk Inst.*

10:00 YY8 **177.11** A role for orexin neurons in water and sodium intake. S. HURLEY*; H. A. ARSETH; R. F. JOHNSON; A. K. JOHNSON. *Univ. of Iowa, Univ. of Iowa.*

11:00 YY9 **177.12** Involvement of central angiotensinergic mechanisms on water and sodium intake by hyperosmotic rats treated with moxonidine into the lateral parabrachial nucleus. C. F. RONCARI*; R. B. DAVID; P. M. DE PAULA; D. S. A. COLOMBARI; L. A. DE LUCA JR.; E. COLOMBARI; J. V. MENANI. *UNESP.*

8:00 YY10 **177.13** Effects of salt loading during pregnancy and lactation on neuroendocrine responses in adult offspring. M. SANTOS DA SILVA*; F. LÚCIO-OLIVEIRA; S. GRACIELA RUGINSK; L. LEICO KAGOHARA ELIAS; J. ANTUNES-RODRIGUES. *Ribeirão Preto Sch. of Med. - Univ. of São Paulo.*

9:00 YY11 **177.14** Age-related changes in fluid intake and blood pressure in response to aldosterone-dexamethasone combination in rats. R. L. THUNHORST*; B. XUE; T. B. BELTZ; A. K. JOHNSON. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, Univ. of Iowa.*

POSTER

178. Stress and Feeding

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

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

8:00 YY12 **178.01** The melanocortin and the BDNF/TrkB systems mediate the anorexigenic effect of PACAP into the central nucleus of the amygdala. A. IEMOLO*; P. COTTONE; V. SABINO. *Boston Univ. Sch. of Med.*

9:00 ZZ1 **178.02** Corticotrophin-releasing factor receptor 2 mediates the enhanced activation of satiety-related responses through OT neurons in the PVN after adrenalectomy. E. T. UCHOA*; S. G. RUGINSK; R. C. RORATO; B. C. BORGES; J. ANTUNES-RODRIGUES; L. L. K. ELIAS. *Univ. of Sao Paulo (USP).*

10:00 ZZ2 **178.03** Proteomic analysis of the brain hypothalamus in a mouse tumor model reveals link to melanocortin signaling and changes in glucose metabolism in cancer-induced anorexia-cachexia. A. G. BLOMQVIST*; R. IHNATKO; C. POST. *Fac. Hlth. Sci.*

11:00 ZZ3 **178.04** Ghrelin protects against stress by promoting the consumption of carbohydrates. T. RODRIGUES*; Z. PATTERSON; A. ABIZAID. *Carleton University, Abizaid Lab., Carleton Univ.*

8:00 ZZ4 **178.05** ● Role of CRH 2 receptors in feeding behavior and metabolic markers of adrenalectomized rats. M. RITO*; V. LÓPEZ ALONSO; K. REYES SANTOS; G. AMBROCIO SEGUNDO; K. CRUZ GARCÍA; J. MANCILLA DÍAZ. *Univ. Nacional Autonoma De México.*

9:00 ZZ5 **178.06** Effect of prenatal stress and early-postnatal food-restriction schedule on TRH and CRH limbic expression and feeding motivation in adult male rats. C. GARCÍA LUNA*; P. DE GORTARI. *Inst. Nacional De Psiquiatría.*

10:00 ZZ6 **178.07** Neuropeptide W induced hypophagia is mediated a CRH neurons. F. TAKENOYA; S. HIRAKO; E. OTA; N. WADA; H. KAGEYAMA; T. RYUSH; S. SHIODA*. *Showa Univ. Sch. Med., Hoshi Univ., kiryu univ, Daito Univ.*

11:00 ZZ7 **178.08** Characterizing adaptive and maladaptive molecular responses to stress. D. J. GUARNIERI*; H. GRAHAM; A. KIM; J. GOLDSTEIN; J. R. TRINKO; M. BANASR; R. J. DILEONE. *Colgate Univ., Yale Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

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POSTER

179. Obesity

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

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

8:00 ZZ8 **179.01** ● ▲ Consumption of a high-fat diet increases impulsivity in rats: Implications for obesity. J. SUSSMAN*; W. K. ADAMS; S. KAUR; C. A. WINSTANLEY. *Dept. of Psychology, Univ. of British Columbia, Univ. of British Columbia.*

9:00 ZZ9 **179.02** Loss of Lymphoid cell kinase (Lck) induces late-onset obesity in mice and deregulates leptin receptor signaling in hypothalamic neurons. J. K. NESS*; A. OLARU; A. SKILES; S. ZHENG; G. ARGYROPOULOS; N. TAPINOS. *Weis Ctr. For Research, Geisinger Clin., Neurosci. Inst.*

10:00 ZZ10 **179.03** Region-specific differences in brain melanocortin receptors identified using laser capture microdissection (LCM) in lean vs. obesity-prone rats. C. SHUKLA*; L. G. KOCH; S. L. BRITTON; C. M. NOVAK. *Kent State Univ., Univ. of Michigan.*

11:00 ZZ11 **179.04** A role for vitamin D in diet-induced obesity and dopamine-related behaviors. J. R. TRINKO*; B. B. LAND; W. B. SOLECKI; R. J. WICKHAM; L. A. TELLEZ; I. E. DE ARAUJO; N. A. ADDY; R. J. DILEONE. *Yale Univ.*

8:00 ZZ12 **179.05** Obesity is associated with decreased μ-opioid receptor availability but unaltered dopamine D2 receptor availability in the brain: a PET study. H. K. KARLSSON; L. TUOMINEN; J. J. TUULARI; J. HIRVONEN; P. NUUTILA; L. NUMMENMAA*. *Turku PET Ctr., Univ. of Turku, Aalto Univ., Turku PET Cetnre.*

9:00 ZZ13 **179.06** Reduced dopamine D2 receptor activity promotes obesity through energetic thrift not increased consumption. J. A. BEELER*; S. TURKSON; X. ZHUANG. *The Univ. of Chicago.*

10:00 ZZ14 **179.07** Mice lacking central serotonin are protected from high-fat diet-induced obesity. V. MOSIENKO*; V. NUNES-SOUZA; L. RABELO; M. BADER; N. ALENINA. *Max-Delbrück-Center For Mol. Med., Laboratório de Reatividade Cardiovasc. (LRC), Setor de Fisiologia e Farmacologia, ICBS/UFAL, Natl. Inst. of Sci. and Technol. in NanoBiopharmaceutics (N-BIOFAR).*

11:00 ZZ15 **179.08** ▲ A potencial molecular basis of obesity onset: The expression of MAP-in hippocampus and nucleus accumbens of rats subjected to first selection in a cafeteria diet experiment. A. SARRO-RAMIREZ*; A. B. TEJEDA-PADRÓN; D. SÁNCHEZ-LÓPEZ; E. PACHECO-PANTOJA; E. MURILLO-RODRÍGUEZ. *Univ. Anahuac Mayab, Univ. Anahuac Mayab.*

8:00 ZZ16 **179.09** Neuronal nitric oxide synthase activity is necessary for diet-induced obesity. N. BELLEFONTAINE*; E. CARON; J. PARKASH; C. VANACKER; S. G. BOURET; V. PREVOT. *Univ. of Michigan, INSERM U837, Univ. Lille 2, Neurobese, USC.*

9:00 ZZ17 **179.10** Resistance to diet-induced obesity is associated to selective epigenetic regulation of hypothalamic neuropeptides gene expression. M. V. MICIONI DI BONAVENTURA; M. PUCCI; M. MACCARRONE; V. CUOMO; R. CICCOCIOPPO; S. GAETANI; C. D'ADDARIO; C. CIFANI*. *Univ. of Camerino, Sch. of Pharm., Univ. of Teramo, Campus Bio-Medico Univ. of Rome, Univ. of Rome La Sapienza.*

10:00 ZZ18 **179.11** Cholinergic modulation of circuits involved in food intake. C. A. CALARCO*; M. V. BURKE; I. TEZAPSIDIS; Y. S. MINEUR; M. R. PICCIOTTO. *Yale Univ. Sch. of Med.*

11:00 ZZ19 **179.12** Neuronal connections of the central amygdaloid nucleus with refeeding-activated brain areas. B. VIDA; G. ZSÉLI; R. M. LECHAN; C. FEKETE*. *Inst. of Exptl. Medicine, Hungarian Acad. of Sci., Tufts Med. Ctr., Tufts Univ. Sch. of Med.*

8:00 ZZ20 **179.13** Orexin/hypocretin regulates glutamate and acetylcholine release and inhibition of parvalbumin neurons in the rat insular cortex: Effects of aging. J. M. HAGAR; V. MACHT; S. P. WILSON; J. R. FADEL*. *Univ. of South Carolina Sch. of Med., Univ. of South Carolina Sch. of Med.*

9:00 ZZ21 **179.14** Impact of maternal infection on hypothalamic feeding circuit development. N. S. MATTAN-HUNG*; R. SIMERLY. *Childrens Hosp. Los Angeles/Saban Res. Inst., Childrens Hosp. Los Angeles/Saban Res. Institute/USC.*

10:00 ZZ22 **179.15** Unilateral activation of the medial ventral pallidum using NMDA induces feeding and Fos expression in the lateral hypothalamus. I. RIVERO-COVELO*; D. WIRTSHAFTER; T. R. STRATFORD. *Univ. Illinois Chicago.*

11:00 ZZ23 **179.16** Development of a viral vector to activate brainstem catecholamine neurons. J. S. NASSE*; J. B. TRAVERS. *Ohio State Univ.*

POSTER

180. Binge Eating

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

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

8:00 ZZ24 **180.01** ▲ Effects of binge eating upon breaking points of progressive ratio schedules for different sucrose and fat concentrations in rats. Y. RAMÍREZ*, JR; W. A. ZEPEDA; D. VELAZQUEZ-MARTINEZ. *UNAM, Univ. Nacional Autonoma de Mexico, Univ. Nacional Autonoma de Mexico.*

9:00 ZZ25 **180.02** The uncompetitive NMDA receptor antagonist memantine blocks compulsive eating of palatable food. K. L. SMITH*; R. R. RAO; M. VALENZA; V. SABINO; P. COTTONE. *Boston Univ. Sch. of Med.*

10:00 ZZ26 **180.03** **Withdrawn.**

11:00 AAA1 **180.04** Galanin-expressing leptin receptor neurons control orexin neurons and modulate sucrose vs. Intralipid preference. A. LAQUE*; K. REZAI-ZADEH; C. SWARTZENBURG; K. BUI; C. MORRISON; B. RICHARDS; C. J. RHODES; H. MÜNZBERG. *Pennington Biomed. Res. Ctr., Pennington Biomed. Res. Ctr., Pennington Biomed. Res. Ctr., Medicine/Biological Sci. Univ. of Chicago.*

8:00 AAA2 **180.05** Sex differences in anticipatory negative contrast and binge-like eating behaviors in mice. D. M. OPLAND*; T. UDO; R. J. DILEONE. *Yale Univ.*

9:00 AAA3 **180.06** Rimonabant precipitates anxiety in rats withdrawn from palatable food: Role of the central amygdala. A. BLASIO*; A. IEMOLO; V. SABINO; S. PETROSINO; L. STEARDO; K. C. RICE; P. ORLANDO; F. IANNOTTI; V. DI MARZO; E. P. ZORRILLA; P. COTTONE. *Boston Univ. Sch. of Med., Inst. of Biomolecular Chemistry, Natl. Res. Council, Sapienza Univ. of Rome, Natl. Inst. on Drug Abuse and Natl. Inst. on Alcohol and Alcoholism, Inst. of Protein Biochemistry, Natl. Res. Council, The Scripps Res. Inst.*

10:00 AAA4 **180.07** The inverse agonist of CB1 receptor SR141716 blocks compulsive eating of palatable food. P. COTTONE*; R. DORE; M. VALENZA; X. WANG; K. C. RICE; V. SABINO. *Boston Univ. Sch. of Med., NIH.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 AAA5 **180.08** Bupropion suppresses binge-like eating. S. BARBUCCI*; K. L. SMITH; R. R. RAO; V. SABINO; P. COTTONE. *Boston Univ. Sch. of Med.*

8:00 AAA6 **180.09** Medial prefrontal D1 dopamine receptor neurons drive food intake. B. B. LAND*; N. S. NARAYANAN; R. LIU; C. A. GIANESSI; K. DEISSEROTH; G. K. AGHAJANIAN; R. J. DILEONE. *Yale Univ., Univ. of Iowa, Stanford Univ.*

9:00 AAA7 **180.10** Activation of membrane-associated estrogen receptors in the medial preoptic area (mPOA) decreases ingestive behavior in female rats. J. SANTOLLO*; A. MARSHALL; D. DANIELS. *Univ. at Buffalo, SUNY.*

10:00 AAA8 **180.11** Temporal resolution of the critical period for leptin mediated neurotrophic action. A. K. KAMITAKAHARA*; K. BOUYER; C. WANG; R. SIMERLY. *USC, Saban Res. Inst.*

11:00 AAA9 **180.12** Voluntary wheel access and highly palatable diet regulate gene expression and behavior in the central reward system. T. M. REYES*; J. CARLIN; Z. YING; A. VERMA; F. GOMEZ-PINILLA. *Univ. Pennsylvania, Sch. of Med., Univ. of California Los Angeles.*

POSTER

181. Human Learning and Feedback

Theme F: Cognition and Behavior

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

8:00 AAA10 **181.01** Motivational influences on striatal responses to performance-related feedback. S. D. SWANSON*; E. TRICOMI. *Rutgers Univ., Rutgers Newark.*

9:00 AAA11 **181.02** Experimental manipulation of prefrontal recruitment has differential effects on amygdala reactivity in children and adolescents. D. G. GEE*; B. GOFF; L. GABARD-DURNAM; J. FLANNERY; N. TOTTENHAM. *UCLA, UCLA.*

10:00 AAA12 **181.03** Neural representation of expected value in the adolescent brain. E. BARKLEY-LEVENSON*; A. GALVÁN. *UCLA.*

11:00 AAA13 **181.04** The error-related negativity (ERN) and post-error slowing in adolescents in an affective flanker task. R. K. REED*; R. MIGLIACCIO; J. GROSE-FIFER. *The Grad. Center, CUNY and John Jay College, CUNY, John Jay College, CUNY.*

8:00 AAA14 **181.05** You do the math: Coding of bets and wins in the feedback-related negativity and P300. J. PETERBURS*; B. SUCHAN; C. BELLEBAUM. *Univ. of Muenster, Ruhr-University Bochum.*

9:00 AAA15 **181.06** How feedback timing modulates learning in adolescence. J. Y. DAVIDOW*; K. FOERDE; A. GALVÁN; D. SHOHAMY. *Columbia Univ., UCLA.*

10:00 AAA16 **181.07** The emergence of adolescent high-risk behavior and the mechanism that causes drug-cue associations to endure into adulthood. S. L. ANDERSEN*; H. BRENHOUSE; N. FREUND; B. THOMPSON; K. SONNTAG. *McLean Hosp, Harvard Med. Sch., Northeastern Univ., McLean Hospital/Harvard Med. Sch., McLean Hosp.*

11:00 AAA17 **181.08** Neurobiological correlates of inspiration, a social emotional state of profound intrinsic motivation. M. IMMORDINO-YANG*; X. YANG. *USC.*

8:00 AAA18 **181.09** "You deceived me… Please be my friend!" Neurobiological evidence for violation of social expectations in adolescents. K. S. BREINER*; A. GALVÁN. *UCLA, UCLA.*

9:00 AAA19 **181.10** Emotional face-processing in depressed and anxious adolescents: A longitudinal fMRI study investigating time and treatment related changes in brain activation. B. G. VAN DEN BULK*; J. COUSIJN; N. D. J. VAN LANG; N. J. A. VAN DER WEE; S. A. R. B. ROMBOUTS; E. A. CRONE; R. R. J. M. VERMEIREN. *Curium-Lumc, Leiden Univ. Med. Ctr., Inst. of Psychology, Brain and Develop. lab, Leiden Univ., Leiden Inst. for Brain and Cognition, Dept. of Psychiatry, Leiden Univ. Med. Ctr., Dept. of Radiology, Leiden Univ. Med. Ctr.*

10:00 AAA20-DP8 **181.11** Development of self-regulatory skills. An fMRI investigation on the neural mechanisms that trigger study behavior in adolescents. L. FALBO*; A. DE BRUIN; T. A. J. M. VAN GOG; P. STIERS. *Maastricht Univ., Fac. of Psychology and Neuroscience, Maastricht Univ., Fac. of Health, Medicine, & Life Sciences, Maastricht Univ., Inst. of Psychology, Erasmus Univ. Rotterdam.*

11:00 AAA21 **181.12** Being rejected and taking revenge: Neural correlates of punishing initiators of social exclusion in adolescence. G. WILL*; P. A. C. VAN LIER; E. A. CRONE; B. GÜROğLU. *Leiden Univ., Leiden Inst. for Brain and Cognition (LIBC), VU Univ., Univ. of Amsterdam.*

8:00 AAA22 **181.13** Isolating feedback signals in a perceptual decision-making task using a partial-trial design. F. ZOU*; S. M. NELSON; F. NAAZ; K. B. MCDERMOTT. *Washington Univ. in St. Louis.*

9:00 AAA23 **181.14** A role for sex steroid hormones in adolescence in the modulation of paravalbumin and glutamate decarboxylase 67 expression in the hippocampus and frontal cortex of adult male and female C57Bl/6 mice. C. WU*; R. HILL; M. VAN DEN BUUSE. *The Florey Inst. of Neurosci. and Mental Hlth., The Univ. of Melbourne.*

10:00 AAA24 **181.15** A Neurofeedback protocol using a sophisticated interactive video game to improve social responsiveness in children with ASD. E. V. FRIEDRICH*; N. SUTTIE; A. SIVANATHAN; T. LIM; S. LOUCHART; J. A. PINEDA. *UCSD, Heriot-Watt Univ., Heriot-Watt Univ.*

11:00 AAA25 **181.16** Neural correlates of expected risks and returns in risky choice across development. A. C. VAN DUIJVENVOORDE*; H. M. HUIZENGA; L. H. SOMERVILLE; A. POWERS; W. D. WEEDA; M. DELGADO; B. CASEY; E. U. WEBER; B. FIGNER. *Brain and Develop. Lab, Leiden Univ., Univ. of Amsterdam, Harvard Univ., Sackler Inst. for Developmental Psychobiology, Rutgers Univ., Columbia Univ., Radboud Univ.*

8:00 AAA26 **181.17** Dopamine modulation of episodic memory for feedback events in Parkinson's disease. K. E. FOERDE*; E. K. BRAUN; D. SHOHAMY. *Columbia Univ.*

9:00 BBB1 **181.18** Feedback triggers cortical sensitivity to motor costs. A. KEISLER*; E. WASSERMANN. *NIH.*

10:00 BBB2 **181.19** Comparison of instantaneous and delayed feedback on an anticipation timing task. B. ETNYRE*; A. JANKE; K. MCKENNEY; A. TRENARY; A. PANDISCIO; B. PRESSLEY; R. PRENGLE; N. CARLSON. *Rice Univ.*

11:00 BBB3 **181.20** Dopamine transporter 3'-UTR VNTR polymorphism modulates learning from positive and negative feedback. I. T. MUGHRABI*; J. Y. NATSHEH; J. R. SIMON; H. M. DARWISH; M. M. HERZALLAH; M. A. GLUCK. *Al-Quds Univ., Al-Quds Univ., Rutgers Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

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8:00 BBB4 **181.21** Dopaminergic medications differentially affect the long term memory for associations learned from positive and negative feedback. J. GROGAN; R. BOGACZ; D. TSIVOS; A. WHONE; E. J. COULTHARD*. *Univ. of Bristol, Univ. of Bristol, Frenchay Hospital, North Bristol NHS Trust, Frenchay Hospital, North Bristol NHS Trust, Frenchay Hospital, North Bristol NHS Trust.*

9:00 BBB5 **181.22** Quick training of mental strategies for response suppression via real-time feedback of motor evoked potentials. A. MAJID*; M. AGUILAR; A. R. ARON. *UCSD.*

10:00 BBB6 **181.23** Putamen's response to negative feedback is associated with repetition of error. J. KIM*; E. KANG. *Kangwon Natl. Univ.*

11:00 BBB7 **181.24** ● The neural basis of excessive habit formation in OCD. C. M. GILLAN*; A. M. APERGIS-SCHOUTE; S. MOREIN-ZAMIR; G. P. URCELAY; N. A. FINERBERG; E. FERNANDEZ-EGEA; A. SULE; B. J. SAHAKIAN; T. W. ROBBINS. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Cambridge, Univ. of Cambridge, Univ. of Hertfordshire, Queen Elizabeth II Hosp., Biggleswade Hosp.*

8:00 BBB8 **181.25** Learn to take risks: Reinforcement history alters humans' decision-making under risk. M. CHEN*; C. N. WHITE; A. J. ELUMN; S. PARIKH; S. WRIGHT; W. T. MADDOX; R. A. POLDRACK. *The Univ. of Texas At Austin, The Univ. of Texas at Austin, The Univ. of Texas at Austin, The Univ. of Texas at Austin.*

9:00 BBB9 **181.26** The behavioral and neural mechanisms underlying the tracking of expertise. E. D. BOORMAN*; J. O'DOHERTY; R. ADOLPHS; A. RANGEL. *Univ. of Oxford, Caltech.*

POSTER

182. Human Memory: Relational and Context-Based

Theme F: Cognition and Behavior

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

8:00 BBB10 **182.01** ● Hippocampal activity tracks eye-movement replay without conscious awareness. A. J. RYALS*; J. L. VOSS. *Northwestern Univ. Feinberg Sch. of Med.*

9:00 BBB11 **182.02** Relating hippocampus to relational memory processing across domains and delays. J. M. MONTI*; G. COOKE; P. D. WATSON; A. F. KRAMER; N. J. COHEN. *Univ. of Illinois.*

10:00 BBB12 **182.03** Development of prefrontal-hippocampal contributions to context-dependent reinforcement learning. J. O'NEIL*; L. S. WAKSCHLAG; E. J. ZOBEL; M. J. BRIGGS-GOWAN; J. VOSS. *Northwestern Univ. Feinberg Sch. of Med., Univ. of Connecticut.*

11:00 BBB13 **182.04** Distinct prefrontal contributions to context-dependent association learning identified using theta-burst repetitive TMS. E. Z. GROSS*; H. SCHWARB; A. J. RYALS; L. M. ROGERS; M. DOKUCU; N. J. COHEN; J. L. VOSS. *Northwestern Univ. Feinberg Sch. of Med., Northwestern Univ. Feinberg Sch. of Med., Univ. of Illinois Urbana-Champaign, Rehabil. Inst. of Chicago, Northwestern Univ. Feinberg Sch. of Med.*

8:00 BBB14 **182.05** Retrieval-mediated learning enhances binding across time. D. J. BRIDGE*; J. L. VOSS. *Northwestern Univ. Feinberg Sch. of Med.*

9:00 BBB15 **182.06** Age-related changes in a simple learning strategy linked to medial prefrontal cortex and hippocampus. K. BRANDSTATT*; J. L. VOSS. *Northwestern Univ.*

10:00 BBB16 **182.07** Brain networks for time-evolving strategies that guide exploration and learning. J. X. WANG*; J. L. VOSS. *Northwestern Univ.*

11:00 BBB17 **182.08** Competing representations in context-guided relational memory: An eye tracking study. H. SCHWARB*; P. D. WATSON; K. CAMPBELL; J. X. WANG; J. L. VOSS; N. J. COHEN. *Beckman Inst. For Advanced Sci. and Technology, Univ. of Illinois Ur, Psychology, Univ. of Illinois Urbana-Champaign, Dept. of Med. Social Sci. and Interdepartmental Neurosci. Program, Northwestern Univ. Feinberg Sch. of Med.*

8:00 BBB18 **182.09** Characterizing common and dissociable involvement of medial temporal lobe regions during episodic source memory retrieval and analogical reasoning. A. J. WESTPHAL*; N. REGGENTE; K. ITO; W. H. FORTUNA; Y. NAWABI; M. MILSTEIN; J. RISSMAN. *UCLA.*

9:00 BBB19 **182.10** The hippocampus and prefrontal cortex support retrieval of overlapping contextual associations. J. E. COHEN*; R. S. ROSS; C. E. STERN. *Boston Univ.*

10:00 BBB20 **182.11** Prefrontal and hippocampal interactions support rule shifts and flexibility in context-dependent memory retrieval. T. I. BROWN*; I. ASELCIOGLU; C. E. STERN. *Stanford Univ., Boston Univ., Massachusetts Gen. Hosp.*

11:00 BBB21 **182.12** Neural sources of delay and trace fear conditioning recorded with magnetoencephalography. N. L. BALDERSTON*; F. J. HELMSTETTER; C. TALLON-BAUDRY. *Univ. Wisconsin-Milwaukee, École Normale Supérieure, Med. Col. of Wisconsin.*

8:00 BBB22 **182.13** Anterior thalamus contributions to long-term consolidation of contextual memory. S. TU*; L. MILLER; M. HORNBERGER. *Neurosci. Res. Australia, Univ. of Sydney.*

9:00 BBB23 **182.14** Aerobic fitness is associated with gray matter volume increases in the entorhinal cortex. A. S. WHITEMAN; C. E. STERN; K. SCHON*. *Boston Univ., Boston Univ. Sch. of Med.*

10:00 BBB24 **182.15** Using eye-tracking to investigate the role of awareness in fear conditioning. L. HOPKINS*; D. H. SCHULTZ; D. E. HANNULA; F. J. HELMSTETTER. *Univ. of Wisconsin-Milwaukee, Univ. of Wisconsin-Milwaukee.*

11:00 BBB25 **182.16** Acquisition and extinction of delay and trace Pavlovian fear conditioning. D. H. SCHULTZ*; N. L. BALDERSTON; L. S. HOPKINS; F. J. HELMSTETTER. *Univ. Wisconsin-Milwaukee, Med. Col. of Wisconsin.*

8:00 BBB26 **182.17** Neural correlates of abstraction and exemplar based category learning. B. SUCHAN*; R. K. LECH. *Ruhr Univ. Bochum.*

9:00 CCC1 **182.18** Hippocampal head and body volumes are related to hippocampal subfield volumes. N. OFEN*; A. M. DAUGHERTY. *Wayne State Univ.*

10:00 CCC2 **182.19** Distributed medial temporal lobe representations reflect disambiguation of overlapping events. J. C. LIANG*; A. M. WATTENBERGER; A. R. PRESTON. *Univ. of Texas at Austin, Univ. of Texas at Austin.*

11:00 CCC3 **182.20** The role of right parahippocampal gyrus in communicative contexts-based vocabulary learning: An fMRI study. H. JEONG*; M. SUGIURA; S. YOKOYAMA; H. HASHIZUME; K. TAKAHASHI; B. THYREAU; W. SUZUKI; R. KAWASHIMA. *Tohoku Univ., Miyagi Univ. of Educ.*

8:00 CCC4 **182.21** Dissociable profiles of match/mismatch sensitivity in hippocampus during visual associative memory retrieval: A high-resolution fMRI study. N. G. DE SHETLER*; T. A. CLARK; J. RISSMAN. *UCLA, UCLA, UCLA, UCLA.*

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9:00 CCC5 **182.22** Developmental differences in hippocampal dentate gyrus account for improvement in associative memory. A. DAUGHERTY*; N. OFEN. *Inst. of Gerontology, Wayne State Univ., Inst. of Gerontology, Wayne State Univ.*

10:00 CCC6 **182.23** Functional connectivity between medial temporal and lateral prefrontal regions during working memory maintenance. K. SCHON; A. WHITEMAN; C. E. STERN*. *Boston Univ., Boston Univ., Massachusetts Gen. Hosp. and Harvard Med. Sch., Boston Univ. Sch. of Med.*

POSTER

183. Language I

Theme F: Cognition and Behavior

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

8:00 CCC7 **183.01** ● Sensitivity of the visual word form area to reading demands. M. OLIVER*; M. CARREIRAS; P. PAZ-ALONSO. *Basque Ctr. On Cognition, Brain and Language, IKERBASQUE, Basque Fndn. for Sci., Departmento de Lengua Vasca y Comunicación, UPV/EHU.*

9:00 CCC8 **183.02** The effect of concurrent articulation on phonological tasks and the cerebellum's role. C. J. LOPRESTI*; T. ALVAREZ; C. DURISKO; J. FIEZ. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

10:00 CCC9 **183.03** Bilingualism benefit in an oculo-motor task? ERP evidence of a relation between language and motricity. K. HEIDLMAYR*; K. DORÉ-MAZARS; F. ISEL. *Inst. of Psychology - Paris Descartes Univ. - PRES Paris Sorbonne Cité, Lab. d'Excellence 'Empirical Foundations of Linguistics' - PRES Paris Sorbonne Cité.*

11:00 CCC10 **183.04** Neural timecourse of language processing in the brain, revisited: From ultra-rapid automaticity at 50 ms to top-down control at 100+ ms. Y. Y. SHTYROV*; L. J. MACGREGOR. *Med. Res. Council.*

8:00 CCC11 **183.05** Oscillatory power distinguishes different levels of linguistic context. S. R. DAMERA; J. W. DONG; S. K. INATI; A. R. BRAUN; K. A. ZAGHLOUL*. *NIH, New York Univ. Sch. of Med., NIH, Natl. Inst. of Neurolog. Disorders and Stroke, NIH.*

9:00 CCC12 **183.06** Temporal dynamics of speech processing: An EEG decoding study of individual spoken words within and across two languages in bilingual adults. J. M. CORREIA*; B. JANSMA; L. HAUSFELD; E. FORMISANO; M. BONTE. *Maastricht Univ., Maastricht Univ.*

10:00 DDD1 **183.07** Training of ultra-fast speech comprehension affects the visual system in late-blind subjects with low residual vision: A functional resonance imaging (fMRI) study. S. DIETRICH; I. HERTRICH; H. ACKERMANN*. *Univ. of Tuebingen.*

11:00 DDD2 **183.08** Decoding letter position in word reading. O. OSSMY*; M. BEN-SHACHAR; R. MUKAMEL. *Tel Aviv Univ., Tel-Aviv Univ., Tel-Aviv Univ., Bar-Ilan Univ., Bar-Ilan Univ.*

8:00 DDD3 **183.09** Large scale voxel-based lesion-symptom mapping on subacute stroke patients reveals the critical involvement of the left basal ganglia in phonological and semantic verbal fluency. L. CHOUITER*; H. JOSEFINA; A. L. MANUEL; F. COLOMBO; J. ANNONI; L. SPIERER. *Lab. For Cognitive and Neurolog. Sciences, Univ. of Fribourg, Lab. of Cognitive Neurorehabilitation, Dept. of clinical neurosciences, Med. school, Univ. of Geneva, Geneva, Switzerland., Neuropsychology and Neurol. units, Hop. de Fribourg, Switzerland.*

9:00 DDD4 **183.10** fMRI evidence for monitoring and inhibition of inappropriate words in speech production. S. J. HANSEN*; K. L. MCMAHON; G. I. DE ZUBICARAY. *Univ. of Queensland, Univ. of Queensland.*

10:00 DDD5 **183.11** Cortical representation of spectral, articulatory, syntactic and semantic information in natural speech revealed by BOLD responses. W. DE HEER*; A. G. HUTH; T. L. GRIFFITHS; F. E. THEUNISSEN; J. L. GALLANT. *UC Berkeley, UC Berkeley.*

11:00 DDD6 **183.12** Sleep leads to generalization in infant language learners through reduced reliance on indexical information. K. GONZALES*; R. GOMEZ. *Univ. of Arizona.*

8:00 DDD7 **183.13** Spatio-temporal processing of words and nonwords: Hemispheric laterality and acute alcohol intoxication. K. MARINKOVIC*; B. Q. ROSEN; B. COX; D. J. HAGLER, Jr. *UCSD, Massachusetts Gen. Hosp.*

9:00 DDD8 **183.14** Cortical mechanisms of rapid novel word learning and memory trace formation: Neurophysiological evidence. L. KIMPPA*; T. KUJALA; A. LEMINEN; M. VAINIO; Y. SHTYROV. *Cognitive Brain Res. Unit, CICERO Learning, Cognitive Sci., Phonetics and Speech Synthesis Res. Group, Cognition and Brain Sci. Unit.*

10:00 DDD9 **183.15** The impact of second language proficiency on an automatic process of written words: An fMRI study. K. MAKITA*; H. OISHI; T. KINOSHITA; H. C. TANABE; K. SHIMADA; N. SADATO. *Natl. Inst. For Physiological Sci. (NIPS), Gifu Shotoku Gakuen Univ., Nagoya Univ., Natl. Inst. for Physiological Sci.*

11:00 DDD10 **183.16** Neural correlates of energetic and informational masking effects on speech production. S. MEEKINGS*; S. EVANS; N. LAVAN; S. K. SCOTT. *UCL.*

8:00 DDD11 **183.17** Functional interactions in the language network during syntactic sentence production. I. TIMMERS*; J. VAN DEN HURK; E. RUBIO-GOZALBO; B. M. JANSMA. *Maastricht Univ., Maastricht Univ. Med. Ctr.*

9:00 DDD12 **183.18** Electrophysiological differences between the processing of syntactically complex sentences. M. A. GÓMEZ LÓPEZ*; R. TORRES-AGUSTÍN; M. RODRÍGUEZ CAMACHO; J. SILVA PEREYRA; Y. RODRÍGUEZ AGUDELO; A. JAIMES BAUTISTA; F. ROBLES AGUIRRE. *Natl. Autonomous Univ. of Mexico, Natl. Inst. of Neurol. and Neurosurgery, Mexico, Natl. Autonomous Univ. of Mexico, Iztacala Higher Educ. Fac., Autonomous Univ. of Guadalajara, North Campus.*

10:00 EEE1 **183.19** Polarity-dependent effect of tDCS on the left posterior parietal cortex in verbal attentional processing. T. MINAMOTO*; M. AZUMA; K. YAOI; M. OSAKA; T. MIMA; H. FUKUYAMA; N. OSAKA. *Osaka Univ., Kyoto Univ., Kyoto Univ.*

11:00 EEE2 **183.20** Neuroimaging of meaningfulness judgments and individual differences in sentence comprehension: A functional magnetic resonance imaging (fMRI) experiment. J. A. CIAROCHI*; G. FRISHKOFF; K. REVILL; S. PENDL; J. BINDER. *Georgia State Univ., Georgia State Univ., Emory Univ., Med. Col. of Wisconsin.*

8:00 EEE3 **183.21** You talkin' to me? An fMRI study of the interactions between gaze direction and speech perception. S. K. SCOTT*; K. JASMIN; Z. AGNEW; F. EISNER; O. JOSEPHS; R. LAWSON; A. CALDER; M. SPIELMANN; C. MCGETTIGAN. *Univ. Col. London, Univ. Col. London, Max Planck Institite for Psycholinguistics, MRC Cognition and Brain Sci. Unit, Univ. of Leipzig, Royal Holloway Univ. of London.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

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POSTER

184. Emotion I

Theme F: Cognition and Behavior

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

8:00 EEE4 **184.01** Learning to discriminate invisible emotional facial expressions. S. LEE*; M. LEE; C. KIM; J. PEARSON. *Korea Univ., Univ. of New South Wales.*

9:00 EEE5 **184.02** Adaptation to action-related changes in a volatile environment. V. CHAMBON*; E. KOECHLIN. *Ecole Normale Supérieure.*

10:00 EEE6 **184.03** Estrogen and menstrual cycle effects on fear inhibition in women. E. M. GLOVER*; K. B. MERCER; S. D. NORRHOLM; M. DAVIS; E. DUNCAN; K. J. RESSLER; T. JOVANOVIC. *Emory Univ. Sch. of Med.*

11:00 EEE7 **184.04** Training amygdala down-regulation via real-time fmri neurofeedback: a proof-of-concept study. S. SCHERPIET*; U. HERWIG; J. SULZER; P. STÄMPFLI; E. SEIFRITZ; A. B. BRÜHL. *Univ. Hosp. of Psychiatry Zurich, Univ. of Zurich, Univ. of Ulm, Swiss Federal Inst. of Technol. (ETH), Univ. of Zurich, Univ. of Cambridge.*

8:00 EEE8 **184.05** False memories: Effects of manipulating arousal and valence of stimuli after sulpiride administration on healthy young volunteers. R. V. GUARNIERI*; R. L. RIBEIRO; L. M. STEIN; O. F. A. BUENO. *Univ. Federal De São Paulo, Univ. Federal De São Paulo, Pontifícia Univ. Católica do Rio Grande do Sul.*

9:00 EEE9 **184.06** ● Exploring the structure of subjective mood state in daily life environment. K. KATAHIRA*; E. AIBA; H. YANO; S. MATSUURA; K. TOBITANI; N. NAGATA; K. MIYA; S. FURUKAWA. *Grad. Sch. of Sci. and Technology, Kwansei Gakuin Univ., Natl. Inst. of Advanced Industrial Sci. and Technol., Japan Society for the Promotion of Sci., Advanced Technol. R&D Center, Mitsubishi Electric Corp.*

10:00 EEE10 **184.07** High and low road for fear perception in humans. C. MÉNDEZ-BÉRTOLO; S. MORATTI; R. TOLEDANO; R. MARTÍNEZ-ÁLVAREZ; Y. H. MAH; A. GIL-NAGEL; P. VUILLEUMIER; B. A. STRANGE*. *Univ. Politécnica de Madrid, Univ. Complutense de Madrid, Univ. Complutense de Madrid, Hosp. Ruber Internacional, Hosp. Ruber Internacional, Univ. Col. London, Univ. Hosp. and Med. Sch. University University of Geneva, Univ. Politecnica De Madrid.*

11:00 EEE11 **184.08** Emotion-selective single neurons in the human amygdala signal subjective perceived emotion. S. WANG*; O. TUDUSCIUC; A. N. MAMELAK; I. B. ROSS; R. ADOLPHS; U. RUTISHAUSER. *Caltech, Caltech, Cedars-Sinai Med. Ctr., Huntington Mem. Hosp., Caltech.*

8:00 EEE12 **184.09** Medial prefrontal cortex activity during encoding of negatively valenced face-occupation associations is related to impaired subsequent retrieval. R. BERKERS*; F. KLUMPERS; G. VAN WINGEN; G. FERNÁNDEZ. *Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr., Academic Med. Center, Univ. of Amsterdam.*

9:00 EEE13 **184.10** EEG alpha range dynamics for face and voice emotion in human brain. K. HIYOSHI-TANIGUCHI*; M. KAWASAKI; T. YOKOTA; H. BAKARDJIAN; H. FUKUYAMA; F. VIALATTE; A. CICHOCKI. *Kyoto Univ., Tsukuba university, Tokyo institute of technology, Groupe Hospitalier Pitié-Salpétrière, Kyoto univeersity, ESPCI ParisTech, RIKEN Brain Sci. Inst.*

10:00 EEE14 **184.11** Regional specialization of affective processing in the inferotemporal cortex. D. W. FRANK*; T. J. WANGER; D. SABATINELLI. *Univ. of Georgia.*

11:00 EEE15 **184.12** Subcortico-cortical interactions and reactivation of fear memory representations during post-learning awake states. L. D. DE VOOGD*; G. FERNÁNDEZ; E. J. HERMANS. *Radboud Univ. Nijmegen Med. Ctr.*

8:00 EEE16 **184.13** Effects of childhood poverty on the emotional face processing in adulthood. A. JAVANBAKHT*; A. KING; G. EVANS; I. LIBERZON. *Univ. of Michigan/ Department of Psychiatry, Univ. of Michigan, Cornell Univ.*

9:00 EEE17 **184.14** Neural substrates of human anxiety expression and the impact of the 5-HTTLPR polymorphism: Converging results from two independent samples. F. KLUMPERS*; M. C. KROES; I. HEITLAND; S. A. AKKERMANS; R. OOSTING; B. FRANKE; L. KENEMANS; G. A. VAN WINGEN; G. FERNÁNDEZ; J. M. P. BAAS. *Donders Ctr. For Brain Cognition and Behaviour, Radboud Univ. Med. Ctr., Utrecht Univ., Utrecht Univ., Radboud Univ. Med. Ctr., Academic Med. Ctr.*

10:00 EEE18 **184.15** Effects of valence vs. arousal focus on processing of neutral material in affective, default, and visual networks. J. M. ANDREANO*; B. DICKERSON; L. FELDMAN BARRETT. *Massachusetts Gen. Hosp., Massachusetts Gen. Hosp., Harvard Med. Sch., Northeastern Univ.*

11:00 EEE19 **184.16** Reciprocal interaction between medial temporal and lateral temporal lobe in emotion processing: A study combining ecog and granger causality. A. TRONGNETRPUNYA*; F. BARTSCH; A. KEIL; M. DING. *Univ. of Florida, Univ. of Florida, Univ. of Florida.*

8:00 EEE20 **184.17** A test of extinction during reconsolidation with aversive taste. J. CHIKAZOE*; K. TCHALOVA; D. H. LEE; R. M. TODD; A. K. ANDERSON. *The Univ. of Toronto, Cornell Univ.*

9:00 EEE21 **184.18** Brain activity during the presentation of dental treatment sounds: An fMRI study. H. KARIBE*; M. KOEDA; A. TATENO; H. SUZUKI; Y. OKUBO. *Nippon Dent. Univ., Nippon Med. Sch., Nippon Med. Sch.*

10:00 EEE22 **184.19** A role of amygdala in false memory of face in the short-term memory range. T. IIDAKA*; T. HARADA. *Nagoya University, Grad. Sch. of Medicine, Dept. of Psychiatry, Natl. Inst. for Physiological Sci.*

11:00 EEE23 **184.20** How affective information from faces and scenes interacts in the brain. J. VAN DEN STOCK*; M. VANDENBULCKE; R. GOEBEL; B. DE GELDER. *KU Leuven, Maastricht Univ.*

8:00 EEE24 **184.21** Immediate effects of anterior thalamic stimulation on human cognition and emotion. L. SUN; M. POLVIVAARA; M. BRAUSE; K. LEHTIMAKI; J. PELTOLA; K. H. OGAWA*; J. OHMAN; K. M. HARTIKAINEN. *Tampere Univ. Hosp., Tampere Univ. Hosp., St. Mary's Coll.*

9:00 EEE25 **184.22** An emerging member of the neuronal network for emotion regulation: The Cerebellum. Y. HU; I. PUZZO; B. HENNE; T. JOHNSTONE*. *Univ. of Reading, Univ. of Reading.*

POSTER

185. Individual Differences: Personality, Emotion, and Disorders

Theme F: Cognition and Behavior

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

8:00 EEE26 **185.01** Individual differences in temperament measures of reward dependence and novelty seeking relate to white matter integrity in healthy adults. K. H. KARLSGODT*; T. IKUTA; P. DEROSSE; B. D. PETERS; P. R. SZESZKO; A. K. MALHOTRA. *Feinstein Inst. for Med. Res.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 FFF1 **185.02** Personality differences in sensitivity to punishment and medio-dorsal thalamic activity after high-penalty. S. KIM; J. KIM; E. KANG*. *Kangwon Natl. Univ.*

10:00 FFF2 **185.03** Neuroanatomical correlates of general self-efficacy: A voxel-based morphometry study. R. AOKI*; A. SUGIURA; Y. YOMOGIDA; M. MATSUMOTO; K. MURAYAMA; K. IZUMA; K. MATSUMOTO. *Brain Sci. Institute, Tamagawa Univ., Japan Society for the Promotion of Sci., The Univ. of Tokyo, UCLA, Caltech.*

11:00 FFF3 **185.04** Neural signatures of political attitudes. W. AHN*; K. T. KISHIDA; X. GU; T. LOHRENZ; A. H. HARVEY; J. R. HIBBING; P. R. MONTAGUE. *Virginia Tech. Carilion Res. Inst., Wellcome Trust Ctr. for Neuroimaging, Univ. of Nebraska-Lincoln.*

8:00 FFF4 **185.05** Personality moderates the benefits of a daytime nap on the attentional blink. K. A. DUGGAN; N. CELLINI; E. A. MCDEVITT; K. M. ROWE; S. C. MEDNICK*. *Univ. of California, Riverside, Univ. of Padua.*

9:00 FFF5 **185.06** ▲ Embodied cognition and sex differences in single versus combined tasks during visual tracking and emotion recognition. R. GOSAVI*; V. CHANG; R. MCGIVERN; J. PINEDA. *UCSD, San Diego State Univ.*

10:00 FFF6 **185.07** Amygdala task-evoked activity and task-free connectivity independently contribute to feelings of arousal. A. TOUROUTOGLOU*; K. BICKART; M. HOLLENBECK; B. DICKERSON; L. FELDMAN BARRETT. *Athinoula A. Martinos Center, Massachusetts Gen. Hosp., Harvard Med. Sch., Psychiatric Neuroimaging Division, Dept. of Psychiatry, Massachusetts Gen. Hosp. and Harvard Med. Sch., Boston Univ. Sch. of Med., Frontotemporal Disorders Unit, Dept. of Neurology, Massachusetts Gen. Hosp. and Harvard Med. Sch., Northeastern Univ.*

11:00 FFF7 **185.08** Neural and hormonal bases of paternal nurturance. J. S. MASCARO*; P. D. HACKETT; J. K. RILLING. *Emory Univ.*

8:00 FFF8 **185.09** Serotonin gene (SLC6A4) 5-HTTLPR polymorphism associated with personality traits in a Mexican population. V. PERALTA-LEAL*; E. LEAL-UGARTE; V. GRACIA-GONZÁLEZ; L. R. GONZÁLEZ-MEDELLÍN; H. G. TORRES-BENAVIDES; M. GUTIÉRREZ-ANGULO; I. P. DÁVALOS-RODRÍGUEZ; M. P. GALLEGOS-ARREOLA; K. VILLARREAL-SOTELO; S. NAIR; J. DURÁN-GONZÁLEZ. *Univ. Autonoma De Tamaulipas, Univ. de Guadalajara, Univ. de Guadalajara, Ctr. de Investigación Biomédica de Occidente, Univ. Autónoma de Tamaulipas, Univ. of Texas at Brownsville.*

9:00 FFF9 **185.10** ▲ Relationship between depressive symptoms and brain responses to food logos in obese children. A. A. WADOOD; J. M. HENRY; A. R. NESS; J. B. C. CHERRY; W. R. BLACK; J. M. BRUCE; A. M. DAVIS; C. R. SAVAGE; A. S. BRUCE*. *Univ. of Missouri-Kansas City, Univ. of Kansas Med. Ctr., Univ. of Missouri-Kansas City.*

10:00 FFF10 **185.11** Individual differences in brain structure and functional connectivity related to body mass index (BMI) and body fat percentage (BFP). C. R. FIGLEY*; E. L. LEVENBAUM; J. S. A. ASEM; S. M. COURTNEY. *Johns Hopkins Univ.*

11:00 FFF11 **185.12** Fast food commercials differentially engage anterior and posterior regions of the insula in overweight and normal weight adolescents. K. M. RAPUANO*; J. F. HUCKINS; C. ROGERS; J. SARGENT; W. M. KELLEY; T. F. HEATHERTON. *Dartmouth Col., Dartmouth Hitchcock Med. Ctr.*

8:00 FFF12 **185.13** Long-term influence of preterm birth on human functional connectome. C. MENG*; J. BÄUML; C. ZIMMER; V. RIEDL; H. BOECKER; M. DAAMEN; J. JAEKEL; D. WOLKE; P. BARTMANN; A. WOHLSCHLÄGER; C. SORG. *Technische Univ. München, Technische Univ. München, Ludwig-Maximilians-Universität München, Technische Univ. München, Univ. Hosp. Bonn, Univ. of Warwick, Univ. Hosp. Bonn, Technische Univ. München.*

9:00 FFF13 **185.14** Sleep quality, resilience and cortisol reactivity to acute stress. R. WILLIAMSMORRIS*; E. YEPEZ-SANCHEZ; S. KULIK. *Southern Adventist Univ.*

10:00 FFF14 **185.15** 30 years old, a physiological border? Illustrating this point with a differential vulnerability of wakefulness and some cognitive processes under a chronic sleep debt. A. A. RABAT*; L. ROCA-PAIXAO; P. VAN BEERS; P. ARNAL; C. DROGOU; G. DISPERSYN; C. BOUGARD; F. SAUVET; D. LÉGER; M. CHENNAOUI. *French Armed Forces Biomed. Res. Inst., Univ. of Paris Descartes, Univ. of Paris Sud, Univ. of Paris Descartes (APHP).*

11:00 FFF15 **185.16** Neural basis of individual differences for the response against mental stress: A magnetoencephalography study. E. YAMANO; M. TANAKA*; A. ISHII; Y. WATANABE. *Osaka City Univ. Grad Sch. Med., RIKEN Ctr. for Life Sci. Technologies.*

8:00 FFF16 **185.17** Luteal phase women are more sensitive to the subjective effects of naltrexone than men or early follicular phase women. D. J. ROCHE*; L. A. RAY; A. C. KING. *Univ. of California Los Angeles, Univ. of California Los Angeles, Univ. of Chicago.*

9:00 FFF17 **185.18** Long-term psychedelic drug use is associated with modifications in cortical thickness in the anterior and posterior cingulate cortices. D. B. DE ARAUJO*; J. C. BOUSO; F. PALHANO-FONTES; S. RIBEIRO; J. RIBA. *Brain Inst., Hosp. de Sant Pau.*

10:00 FFF18 **185.19** CHRNA5 variants in relation to P3a and P3b ERPs: Main effects and moderation of nicotine facilitation and nicotine withdrawal. D. EVANS*; D. MACQUEEN; K. JENTINK; J. PARK; D. DROBES. *Moffitt Cancer Ctr.*

11:00 FFF19 **185.20** Omitting adolescents' delayed rewards is linked to their neural subjective value representation. S. SCHNEIDER*; J. PETERS; J. PETH; C. BÜCHEL. *Dept. of Systems Neuroscience, Univ. Med. Ctr. Hamburg-Eppendorf, Univ. of California.*

8:00 FFF20 **185.21** Individual differences in sensation seeking co-varies with substance use and prefrontal cortical thinning in healthy young adults. A. J. HOLMES*; M. HOLLINSHEAD; J. L. ROFFMAN; J. W. SMOLLER; R. L. BUCKNER. *Ctr. For Brain Science, Harvard Univ., Massachusetts Gen. Hosp.*

9:00 FFF21 **185.22** Interactions between neural circuits for threat and reward predict problem alcohol use. Y. S. NIKOLOVA*; A. D. MIHIC; A. R. HARIRI. *Duke Univ.*

10:00 FFF22 **185.23** ● Physiological correlates of developmental pathways to delinquent behavior. L. BERNTSEN*; P. WANG; L. BAKER. *USC.*

11:00 FFF23 **185.24** ▲ Sex differences in resting state brain connectivity in bipolar disorder. S. KIMMICH*; L. EYLER. *UNIVERSITY OF CALIFORNIA, SAN DIEGO.*

8:00 FFF24 **185.25** Increased weekly yoga practice leads to more brain gray matter. C. VILLEMURE*; M. CEKO; V. A. COTTON; M. C. BUSHNELL. *NIH, NCCAM, McGill Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

186. Social Cognition: Neural Substrates I

Theme F: Cognition and Behavior

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

8:00 FFF25 **186.01** Gender roles, stereotypes, and the processing of pain. K. A. SCHWARZ*; C. BÜCHEL. *Univ. Med. Ctr. Hamburg-Eppendorf.*

9:00 FFF26 **186.02** Altered functional connectivity during neural processing of social stress in migrants. C. AKDENIZ*; H. TOST; A. SCHAEFER; F. STREIT; L. HADDAD; S. WUEST; M. SCHNEIDER; M. RIETSCHEL; P. KIRSCH; A. MEYER-LINDENBERG. *Central Inst. of Mental Hlth. Univ. of Heidelberg.*

10:00 GGG1 **186.03** Attending to expression or identity of dynamic faces engages different cortical areas. K. DOBS*; J. SCHULTZ; I. BÜLTHOFF; J. L. GARDNER. *Max Planck Inst. for Biol. Cybernetics, Durham Univ., Korea Univ., RIKEN Brain Sci. Inst.*

11:00 GGG2 **186.04** Unconscious perception of own mother's anger face enhances the lateral orbitofrontal cortex activity. J. SHINOZAKI*; T. MURAHARA; H. SAITO; K. HARADA; H. NAGAHAMA; Y. SAKURAI; T. NAGAMINE. *Sapporo Med. Univ. Sch. of Med., Sapporo Med. Univ. Hosp.*

8:00 GGG3 **186.05** Loving kindness meditation leads to differences in default mode network activity and connectivity in meditators and novices. K. A. GARRISON*; D. SCHEINOST; T. A. THORNHILL, IV; J. A. BREWER. *Yale Univ., Yale Univ.*

9:00 GGG4 **186.06** Altered resting state functional connectivity of the default mode network in low-empathy subjects. S. KIM*; H. KIM; J. KIM; K. NAMKOONG; J. KIM. *Konyang Univ. Col. of Med., Konyang Univ. Hosp., Yonsei Univ. Col. of Med.*

10:00 GGG5 **186.07** Oxytocin receptor genetic variation modulates responses to control deprivation in healthy Chinese. M. JIANG*; L. HE; W. HE; S. ZHU; X. HE; D. GAO; X. ZHOU; H. RAO. *Sun Yat-Sen Univ., Ctr. for Functional Neuroimaging.*

11:00 GGG6 **186.08** The relationship between activity of the autonomic nervous system and social anxiety in the gaze detection task. Y. TSUJI*; S. SHIMADA. *Meiji Univ.*

8:00 GGG7 **186.09** The neural activations of social perception related to aspects of emotion and aspects of congruence at virtual social situation. Y. SHIN*; W. KIM; S. CHOI; J. KIM; K. YOON; I. KIM; S. KIM; D. JANG. *Hanynag Univ., Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med., St. Peter's Hosp.*

9:00 GGG8 **186.10** The neural basis of communicative elaboration for developing rapport with dissimilar others. ; M. SUGIURA; Y. AKIMOTO; H. JEONG; Y. KOTOZAKI; Y. SASAKI; S. HANAWA; R. KAWASHIMA. *Inst. of Development, Aging and Cancer, Intl. Res. Inst. of Disaster Science, Tohoku university.*

10:00 GGG9 **186.11** fMRI Hyperscanning - Differentiating real interacting partners from sequentially scanned subjects. E. BILEK*; A. SCHAEFER; M. RUF; C. AKDENIZ; H. TOST; P. KIRSCH; A. MEYER-LINDENBERG. *Central Inst. of Mental Hlth., Central Inst. of Mental Hlth., Central Inst. of Mental Hlth.*

11:00 GGG10-DP10 **186.12** Defeats drive the emergence of social hierarchy representations in the human brain. R. LIGNEUL; R. GIRARD; J. DREHER*. *CNRS UMR 5229.*

8:00 GGG11 **186.13** The value of honesty: Neural evidence for lie-averse preferences. L. ZHU; E. SET; M. HSU; S. BALL; P. H. CHIU; B. KING-CASAS*. *Virginia Tech. Carilion Res. Inst., Univ. of Illinois at Urbana-Champaign, Univ. of California, Berkeley, Virginia Tech., Virginia Tech.*

9:00 GGG12 **186.14** Neural activity associated with self, other, and object-based counterfactual thinking. F. DE BRIGARD*; N. SPRENG; J. MITCHELL; D. SCHACTER. *Harvard Univ., Cornell Univ.*

10:00 GGG13 **186.15** Common brain networks activated by narratives in a movie and its script - an fMRI study. P. TIKKA*; Y. HLUSHCHUK. *Aalto Univ. Sch. of Sci., Aalto Univ. Sch. of Arts, Design and Architecture, Aalto NeuroImaging, Aalto Univ. Sch. of Sci., Brain Res. Unit, O. V. Lounasmaa Laboratory, Aalto Univ. Sch. of Sci.*

11:00 GGG14 **186.16** Fractionating explicit and implicit theory of mind in the human brain. P. E. DUX*; D. SCHNEIDER; V. P. SLAUGHTER; S. BECKER. *The Univ. of Queensland.*

8:00 GGG15 **186.17** An intact cortical network for theory of mind in three patients with bilateral amygdala lesions. R. P. SPUNT*. *Caltech.*

9:00 GGG16 **186.18** Tuning eye-gaze perception by transitory inhibition of the posterior STS. A. SAITOVITCH; T. POPA; H. LEMAITRE; D. GREVENT; R. CALMON; S. MEUNIER; N. CHABANE; F. BRUNELLE; Y. SAMSON*; N. BODDAERT; M. ZILBOVICIUS. *INSERM U1000, ICM, Salpetriere.*

10:00 GGG17 **186.19** The timing of neural activation during Theory of Mind processing. M. AUCOIN-POWER*; E. W. PANG; M. L. SMITH; M. LALANCETTE; M. J. TAYLOR. *Hosp. For Sick Children, Univ. of Toronto, Hosp. For Sick Children, Hosp. For Sick Children, Univ. of Toronto, Hosp. For Sick Children.*

11:00 GGG18 **186.20** Exploring the neural basis of mental state attributions using Frith-Happé animations. C. MOESSNANG*; E. BILEK; P. ROUX; M. PLICHTA; A. SCHAEFER; S. BAUMEISTER; I. WOLF; N. ADAMO; L. POUSTKA; S. HOHMANN; D. BRANDEIS; T. BANASCHEWSKI; A. MEYER-LINDENBERG; H. TOST. *Central Inst. of Mental Health, Mannheim/Heidelberg Univ., Inst. d'Étude de la Cognition, Central Inst. of Mental Health, Mannheim/Heidelberg Univ.*

8:00 GGG19 **186.21** Neural substrates of contingency detection for self and others - an fMRI study. A. T. SASAKI*; Y. OKAMOTO; R. KITADA; N. SADATO. *Natl. Inst. for Physiological Sci., Osaka City Univ. Grad. Sch. of Med., RIKEN Ctr. for Life Sci. Technologies, The Grad. Univ. for Advanced Studies (SOKENDAI), Univ. of Fukui.*

9:00 GGG20 **186.22** The activity of mirror neuron system during action observation and subsequent imitation. S. OHASHI*; S. SHIMADA. *Meiji Univ.*

10:00 GGG21 **186.23** Activity of the mirror neuron system to action-related sounds in a three-dimensional sound reproduction system. T. KOICHIRO*; K. UENO; S. SHIMADA. *Meiji Univ., Japan Sci. and Technol. Agency.*

11:00 GGG22 **186.24** Data-driven investigation of superior temporal sulcus function. B. M. DEEN*; N. KANWISHER; R. SAXE. *MIT.*

8:00 GGG23 **186.25** Observing biological motion is sufficient but not necessary to activate the right posterior superior temporal sulcus. S. LEE; G. MCCARTHY*. *Yale Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

187. Decision Making: Prefrontal Cortex

Theme F: Cognition and Behavior

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

8:00 GGG24 **187.01** Striatal contributions to cognitive set-shifting: Implications for the development of compulsive and inflexible behaviors in drug addiction. B. J. SLEEZER*; T. C. BLANCHARD; B. Y. HAYDEN. *Univ. of Rochester Med. Ctr., Univ. of Rochester.*

9:00 GGG25 **187.02** Behavioral effects of frontopolar cortex lesions in macaque monkeys. M. J. BUCKLEY*; E. A. BOSCHIN; C. PIEKEMA. *Oxford Univ.*

10:00 GGG26 **187.03** Contributions of prefrontal cortical areas during task switching. E. L. DENOVELLIS*; T. J. BUSCHMAN; D. BULLOCK; E. K. MILLER. *Boston Univ., Ctr. of Excellence for Learning in Education, Sci. and Technol., MIT, Princeton Neurosci. Inst., MIT, The Picower Inst. for Learning and Memory.*

11:00 GGG27 **187.04** The orbital frontal cortex and the value of information. T. BLANCHARD*; B. HAYDEN. *Univ. of Rochester.*

8:00 GGG28 **187.05** Neuronal representations underlying value comparison in ventromedial prefrontal cortex. C. E. STRAIT*; T. C. BLANCHARD; B. Y. HAYDEN. *Univ. of Rochester.*

9:00 GGG29 **187.06** Preparatory activity in the frontal eye field related to strategic adjustments during a stop-signal task. H. SOHN*; S. KIM; D. LEE. *Yale Univ. Sch. of Med., Korea Inst. of Sci. and Technol.*

10:00 GGG30 **187.07** Cortical signals for rewarded actions and exploration during a mixed-strategy game. C. H. DONAHUE*; H. SEO; D. LEE. *Yale Univ. Sch. of Med.*

11:00 GGG31 **187.08** High-order strategies and their neural correlates during a biased matching pennies game. H. SEO*; X. CAI; D. LEE. *Yale Univ. Sch. of Med., Washington Univ. Sch. of Med.*

8:00 GGG32 **187.09** Representation of primary and secondary rewards in orbitofrontal cortex. E. L. RICH*; J. D. WALLIS. *UC Berkeley.*

9:00 GGG33 **187.10** Uncertainty and checking for reward: Monkey behaviour and prefrontal neurophysiology. F. M. STOLL*; E. PROCYK. *INSERM U846, Stem Cell and Brain Res. Inst., Univ. de Lyon, UCBL.*

10:00 GGG34 **187.11** Neuronal correlates of value based decision making in primates are informed by information gathering strategies. N. MALALASEKERA*; L. T. HUNT; B. MIRANDA; T. E. BEHRENS; S. F. FARMER; S. W. KENNERLEY. *Sobell Dept. of Motor Neurosci. and Movement Disorders, Wellcome Trust Ctr. for Neuroimaging, Inst. of Neurol.*

11:00 GGG35 **187.12** Flexible control of action selection: Causal dissection with fine temporal resolution of the functional roles of cortical and sub-cortical structures in a ProAnti orienting task. M. M. YARTSEV*; C. D. KOPEC; C. A. DUAN; J. C. ERLICH; C. D. BRODY. *Princeton Neurosci. Inst., Princeton Univ., Howard Hughes Med. Inst.*

8:00 GGG36 **187.13** Temporal accumulation of visual evidence in the rat. J. C. ERLICH*; B. B. SCOTT; T. D. HANKS; C. D. BRODY. *HHMI / Princeton Univ., Princeton Univ., HHMI/ Princeton Univ.*

9:00 GGG37 **187.14** Causal involvement in behavioral inhibition of rat medial prefrontal cortex and superior colliculus during a ProAnti orienting task. C. A. DUAN*; J. C. ERLICH; C. D. BRODY. *HHMI/Princeton Univ., HHMI/ Princeton Univ.*

10:00 GGG38 **187.15** Cortical and subcortical contributions to short-term memory and decision-making. C. D. KOPEC*; B. W. BRUNTON; J. C. ERLICH; K. DEISSEROTH; C. D. BRODY. *Princeton Univ., Univ. of Washington, Howard Hughes Med. Inst., Stanford Univ., Howard Hughes Med. Inst.*

11:00 GGG39 **187.16** Differential roles in decision-making for rat parietal versus prefrontal cortex neurons with firing rates correlated with accumulation of evidence. T. D. HANKS*; C. D. KOPEC; B. W. BRUNTON; C. A. DUAN; J. C. ERLICH; C. D. BRODY. *HHMI, Princeton Univ., Princeton Univ.*

8:00 GGG40 **187.17** Delay-discounting, aging, and vicarious trial and error (VTE) behaviors. Y. BRETON*; K. D. SEELAND; A. D. REDISH. *Univ. of Minnesota, Univ. of Minnesota.*

9:00 GGG41 **187.18** Differences in the covert representation of reward in ventral striatum and orbitofrontal cortex. J. J. STOTT*; A. D. REDISH. *Univ. of Minnesota, Univ. of Minnesota.*

10:00 GGG42 **187.19** Representational changes in anterior dorsolateral and posterior dorsomedial striatum on an automating decision-making task. P. REGIER*; A. D. REDISH. *Univ. of Minnesota.*

11:00 GGG43 **187.20** Spatial and strategic representations in the medial prefrontal cortex of the rat on an intertemporal choice task. N. J. POWELL*; A. D. REDISH. *Univ. of Minnesota.*

8:00 GGG44 **187.21** Induced stochastic behavior in rats involves escape from the dependence on medial prefrontal cortex. D. G. TERVO*; M. PROSKURIN; M. MANAKOV; M. KABRA; A. VOLLMER; K. BRANSON; A. KARPOVA. *Janelia Farm Res. Campus.*

9:00 GGG45 **187.22** Medial prefrontal cortex lesions results in impairments in contingency detection. K. M. MARTENS*; D. R. EUSTON. *Canadian Ctr. for Behavioural Neurosci.*

10:00 GGG46 **187.23** Reducing prefrontal cortical GABA transmission impairs probabilistic reversal learning; comparisons with subchronic ketamine. S. B. FLORESCO*; P. T. PIANTADOSI. *Univ. British Columbia.*

11:00 GGG47 **187.24** Prefrontal GABA receptor modulation of performance of a massed-trials version of the radial arm maze. M. AUGER*; S. B. FLORESCO. *Univ. of British Columbia.*

8:00 GGG48 **187.25** Dissociable contributions of different regions of the medial and orbital prefrontal cortex to probabilistic reversal learning. G. DALTON*; N. WANG; A. G. PHILLIPS; S. B. FLORESCO. *Univ. British Columbia, Univ. British Columbia.*

9:00 HHH1 **187.26** Basolateral amygdala dopamine modulation of risk-based decision making. J. D. LARKIN*; S. B. FLORESCO. *Univ. of British Columbia.*

10:00 HHH2 **187.27** Acute and repeated amphetamine exposure disrupts probabilistic reversal learning. Z. SU*; S. FLORESCO. *Univ. of British Columbia, Univ. of British Columbia.*

11:00 HHH3 **187.28** Knowing what you want and how to get it: Interaction between the orbital prefrontal cortex or prelimbic cortex and the amygdala in goal-directed behavior in rhesus monkeys. E. C. FIUZAT; S. E. V. RHODES; E. A. MURRAY*. *NIMH, NIH.*

8:00 HHH4 **187.29** Correlation structure reshaping during response selection in the rat prefrontal cortex. C. MININNI; S. ZANUTTO; S. E. LEW*. *IBYME-CONICET, Univ. de Buenos Aires.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 HHH5 **187.30** Contribution of the nucleus accumbens core and lateral orbitofrontal cortex to delay and reward magnitude sensitivity. T. M. MOSCHAK*; S. H. MITCHELL. *Oregon Hlth. & Sci. Univ.*

POSTER

188. Fear and Aversive Learning and Memory: Signaling Pathways for Acquisition

Theme F: Cognition and Behavior

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

8:00 HHH6 **188.01** Repeated morphine administration in shock context blocks contextual fear conditioning. J. PERUSINI*; S. MOORE; B. CHIANG; J. AVERSHAL; M. FANSELOW. *UCLA.*

9:00 HHH7 **188.02** Immature and mature dentate granule cells differentially modulate aberrant fear caused by conceptual auditory generalization. V. RODRIGUEZ BARRERA*; H. YEE; K. IWAMOTO; T. NAKASHIBA; S. TONEGAWA; M. S. FANSELOW. *UCLA, UCLA, MIT.*

10:00 HHH8 **188.03** Intrabasolateral amygdala infusions of the gap junction blocker carbenoxolone impairs auditory and contextual fear conditioning. N. A. NOCERA; M. S. FANSELOW*; S. BISSIERE. *UCLA, Monash Univ.*

11:00 HHH9 **188.04** ● Within-subjects comparison of incubation of recent and remote fear memory. S. J. HERSMAN*; M. S. FANSELOW. *UCLA.*

8:00 HHH10 **188.05** Molecular mechanisms behind inflammation-induced aversion. M. FRITZ*; A. M. KLAWONN; D. BJÖRK-WILHELMS; M. LAZARUS; U. ÖRTEGREN; M. JAAROLA; D. A. RIDDER; J. RODRIGUEZ PARKITNA; M. SCHWANNINGER; C. B. SAPER; A. BLOMQVIST; D. ENGBLOM. *Linköping Univ., Osaka Biosci. Inst., Lübeck Univ., Inst. of Pharmacol. of the Polish Acad. of Sci., Harvard Med. Sch.*

9:00 HHH11 **188.06** Interactions between the mammalian target of rapamycin (mTOR) signaling pathway and the extracellular signal-regulated kinase (ERK) in the basolateral amygdala during fear memory consolidation. N. FERRARA*; M. R. GILMARTIN; B. L. CALLIF; F. J. HELMSTETTER. *Univ. of Wisconsin--Milwaukee.*

10:00 HHH12 **188.07** Divergent intracellular signaling in the amygdala supporting trace and delay fear conditioning: Role of protein kinase-A and extracellular-signal regulated protein kinase pathways. M. R. GILMARTIN*; N. C. FERRARA; B. L. CALLIF; E. J. SCHRAUFNAGEL; F. J. HELMSTETTER. *Univ. Wisconsin-Milwaukee.*

11:00 HHH13 **188.08** dmPFC contributions to the blocking and unblocking of fear learning. J. YAU*; G. MCNALLY. *Univ. of New South Wales.*

8:00 HHH14 **188.09** Ionic bases of conditioned inhibition-produced changes in hermissenda type b photoreceptors. J. FARLEY*. *Indiana Univ.*

9:00 HHH15 **188.10** Tracing the auditory circuit underlying auditory fear conditioning in mice and humans using DTI and Classical Tracing. O. P. KEIFER*, JR; D. GUTMAN; S. KEILHOLZ; K. RESSLER. *Emory Univ., Emory Univ., Emory Univ., Emory Univ., Howard Hughes Med. Inst., Yerkes Natl. Primate Res. Ctr.*

10:00 HHH16 **188.11** The cannabinoid 1 receptor (Cb1) and cholecystokinin (CCK) interact to mediate extinction of cued fear. M. BOWERS*; K. J. RESSLER. *Emory Univ., Howard Hughes Med. Inst.*

11:00 HHH17 **188.12** Functional and molecular characterization of CRF neurons within the central amygdala. G. M. GAFFORD*; K. J. RESSLER. *Emory Univ.*

8:00 HHH18 **188.13** Learning induced arc protein expression within subfields of dorsal and ventral hippocampus. C. D. HUDGINS*; F. REE; T. OTTO. *Rutgers Univ.*

9:00 HHH19 **188.14** Rats fed a diet enriched with curcumin exhibited impaired fear memory consolidation and reconsolidation. D. M. GERHARD*; M. S. MONSEY; L. M. BOYLE; G. E. SCHAFE. *Yale Univ., Yale Univ.*

10:00 HHH20 **188.15** Previously acquired structural and functional responses to a conditioned odor stimulus are reversed with extinction training. F. G. MORRISON*; B. G. DIAS; K. J. RESSLER. *Yerkes Natl. Primate Res. Center, Emory Univ., Howard Hughes Med. Inst.*

11:00 HHH21 **188.16** A novel role for miR-9 in regulating learning and memory. J. WIDAGDO*; Q. LIN; C. FLAVELL; Y. SUN; T. BREDY. *Queensland Brain Inst., Univ. of California Los Angeles.*

8:00 HHH22 **188.17** Acute effects of X-irradiation on learning, adult neurogenesis and the accumulation of drebrin. A. PUSPITASARI; N. KOGANEZAWA; N. KOJIMA; T. SHIRAO*. *Gunma Univ. Grad Sch. Med.*

9:00 HHH23 **188.18** The role of protein synthesis in the development of postraumatic stress disorder in mice. K. ANOKHIN*; K. TOROPOVA. *Natl. Res. Ctr. kurchatov Inst., Moscow Inst. of Physics and Technol., Anokhin Inst. of Normal Physiol., Inst. of Higher Nervous Activity and Neurophysiol.*

10:00 HHH24 **188.19** Amnestic effects of 3'-azido-3'-deoxythymidine (AZT) in fear conditioning task in mice. O. I. IVASHKINA*; M. A. ZOTS; K. V. ANOKHIN. *NRC Kurchatov Inst., PK Anokhin Inst. of normal physiology RAMS.*

11:00 HHH25 **188.20** Developmental lead exposure modifies associative learning and memory via epigenetic mechanisms modified by sex, timing, and level of exposure. D. W. ANDERSON*; W. A. METTIL; S. K. KIDD; J. S. SCHNEIDER. *Thomas Jefferson Univ.*

POSTER

189. Fear and Aversive Learning and Memory: Modulation

Theme F: Cognition and Behavior

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

8:00 HHH26 **189.01** ANA-12, a Trk B receptor antagonist, increases submission following social defeat in Syrian hamsters. E. C. JEFFRESS*; K. L. HUHMAN. *Georgia State Univ., Ctr. for Behavioral Neurosci.*

9:00 HHH27 **189.02** Effect of intracranial administration of propranolol on consolidation of conditioned defeat. C. L. GRAY*; K. L. HUHMAN; A. NORVELLE. *Georgia State Univ.*

10:00 HHH28 **189.03** Aging effects in a risky semi-naturalistic foraging environment. M. A. REILLY*; B. PELLMAN; J. J. KIM. *Univ. of Washington, Univ. of Washington.*

11:00 HHH29 **189.04** Entrainment of circadian rhythms by fear. E. S. KIM*; J. KASHIMA; O. MOTCH; H. O. DE LA IGLESIA; J. J. KIM. *Univ. of Washington, Univ. of Washington.*

8:00 HHH30 **189.05** Hippocampal place cells encode a distance gradient of fear in foraging rats. J. J. KIM*; E. KIM; M. PARK; J. CHO. *Univ. of Washington, Korea Inst. of Sci. and Technol.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 HHH31 **189.06** Predator exposure produces anterograde and retrograde enhancement of incidental learning in rats: Insight into the neurobiology of flashbulb memories. L. A. BULLARD*; C. R. PARK; D. M. DIAMOND. *Univ. of South Florida, Univ. of South Florida, Tampa VA Hosp.*

10:00 HHH32 **189.07** Predator exposure blocks the facilitating effect of context pre-exposure in the immediate shock deficit. C. R. PARK*; D. M. DIAMOND. *VA Hosp., Univ. South Florida.*

11:00 HHH33 **189.08** ● Lesions of the lateral habenula enhances acquisition of two-way active avoidance learning. M. SONG*; J. CHOI. *Korea Univ.*

8:00 HHH34 **189.09** ● Peripherally administered oxytocin modulates latent inhibition in a manner consistent with second generation antipsychotic drugs. D. FEIFEL*; J. HILLMAN; M. MAISEL; J. WINFIELD; G. MELENDEZ; P. SHILLING. *UCSD, Yeshiva Univ.*

9:00 HHH35 **189.10** Social defeat produces alterations in social behavior, but paradoxical findings in the precision of contextual fear memory. B. N. DULKA*; J. D. MEDURI; P. K. CULLEN; A. M. JASNOW. *Kent State Univ.*

10:00 HHH36 **189.11** Galanin receptor 3-deficient male mice exhibit anxiety-like phenotype. S. BRUNNER; A. FARZI; F. LOCKER; S. EBNER; B. HOLUB; A. LANG; J. MAYR; R. LANG; P. HOLZER; B. KOFLER*. *Paracelsus Med. Univ., Med. Univ. of Graz, Paracelsus Med. Univ., Paracelsus Med. Univ.*

11:00 HHH37 **189.12** ● Glucocorticoid receptor activation in the hippocampus and striatum differentially enhances memory consolidation of contextual and tone fear conditioning. V. A. ARENAS; L. G. GARCIA-LARA; N. SERAFIN; R. A. PRADO-ALCALÁ; B. ROOZENDAAL; G. L. QUIRARTE*. *Inst. de Neurobiologia, UNAM, Donders Inst. for Brain, Cognition and Behaviour, Radboud Univ. Nijmegen Med. Centre, 6500 HB.*

8:00 HHH38 **189.13** Two process account of aversive classical conditioning: Amygdala modulation of cerebellar-dependent eyeblink conditioning. J. M. POCHIRO*; D. H. LINDQUIST. *The Ohio State Univ., The Ohio State Univ.*

9:00 HHH39 **189.14** Effects of dopamine d1 receptor antagonism on contextual fear conditioning. F. C. HEATH*; T. BAST; M. A. PEZZE; J. VOIGT; C. W. STEVENSON. *Univ. of Nottingham, Univ. of Nottingham, Univ. of Nottingham.*

10:00 HHH40 **189.15** Re-evaluating traumatic experience in a mouse model of Posttraumatic Stress Disorder: The role of lateral orbitofrontal cortex. V. CESTARI*; D. SARAULLI; S. CANNAS; F. D'ALESSANDRO; C. ROSSI ARNAUD; M. COSTANZI. *Sapienza Univ. of Rome and IBCN-CNR, IBCN - CNR, Lumsa Univ., Sapienza Univ. of Rome, Lumsa Univ. and IBCN - CNR.*

11:00 HHH41 **189.16** Role of estrogens in the generalization of fear: Timing of estrogens during fear generalization in ovariectomized rats. J. F. LYNCH*, III; T. VANDERHOOF; D. DEJANOVIC; A. M. JASNOW; D. C. RICCIO. *Kent State Univ.*

8:00 HHH42 **189.17** Contextual fear conditioning depresses infralimbic intrinsic excitability. O. SOLER-CEDEÑO; A. V. LÓPEZ; J. T. PORTER*. *Ponce Sch. Med.*

9:00 HHH43 **189.18** ● Lateral parabrachial nucleus is involved in the acquisition of fear memory in mice. M. SATO; A. M. WATABE*; F. KATO. *Jikei Univ. Sch. of Med., Jikei Univ. Sch. of Med.*

10:00 HHH44 **189.19** Neurotoxic damage to Brodmann Area 14 in non-human primates impairs the expression of fear and safety as assessed by the AX+/BX- paradigm. A. M. KAZAMA*; C. WYNN; M. KLAVANS; A. TOMPKINS; A. GAZY; M. DAVIS; J. BACHEVALIER. *Emory Univ., Yerkes Natl. Primate Res. Ctr.*

11:00 HHH45 **189.20** Prefrontal cortex cannabinoid transmission bi-phasically controls sub-cortical mesolimbic dopamine activity: Impact on rewarding and aversive memory formation. M. LOUREIRO*; B. DRAYCOTT; A. TASHA; S. R. LAVIOLETTE. *Univ. of Western Ontario.*

8:00 HHH46 **189.21** Glucocorticoid receptor activation rescues fear memory impairment induced by GRPR blockade in the hippocampus. T. LUFT*; G. SCHWARTSMANN; R. ROESLER. *UFRGS, UFRGS, UFRGS.*

9:00 III1 **189.22** The positive allosteric modulator of the α7 nicotinic receptor, 3-furan-2-yl-N-p-tolyl-acrylamide, improves cognition and the antidepressant activity elicited by nicotine in mice. K. M. TARGOWSKA-DUDA*; B. BUDZYNSKA; K. JOZWIAK; H. R. ARIAS; G. BIALA. *Med. Univ. of Lublin, California Northstate Univ. Col. of Med.*

10:00 III2 **189.23** Glutamate-serotonin interplay within dorsolateral periaqueductal gray modulate fear memory encoding. A. P. CAROBREZ*; G. C. KINCHESKI. *Univ. Federal de Santa Catarina, Univ. Federal do Rio de Janeiro.*

11:00 III3 **189.24** Effects of differing adolescent traumatic stress history upon adulthood response to predator stress. N. L. MOORE*; D. E. ALTMAN; S. GAUCHAN; R. F. GENOVESE. *Walter Reed Army Inst. of Res.*

8:00 III4 **189.25** Brain-derived neurotrophic factor in the amygdala promotes susceptibility to stress and fear conditioning. D. CHOU; C. HUANG; K. HSU*. *Natl. Cheng Kung Univ.*

9:00 III5 **189.26** M2 muscarinic cholinergic receptor localization in the rat basolateral amygdala: An ultrastructural analysis. J. MULLER*; F. MASCAGNI; V. ZARIC; A. J. MCDONALD. *Univ. of South Carolina Sch. of Med.*

10:00 III6 **189.27** The role of 5-HT2A receptors in the basolateral amygdala in defeat-induced fear and anxiety. C. T. CLINARD*; M. A. SULLIVAN; M. A. COOPER. *Univ. of Tennessee.*

11:00 III7 **189.28** Prelimbic and Infralimbic TrkB signaling differentially regulates appetitive and aversive emotional learning. D. C. CHOI*; S. L. GOURLEY; K. M. MCCULLOUGH; S. SABATER; K. J. RESSLER. *Emory Univ., Emory Univ., Emory Univ.*

8:00 III8 **189.29** Dorsolateral periaqueductal gray matter cannabinoid CB1 receptors modulate the expression of contextual fear conditioning: involvement of local glutamatergic and nitrergic system. D. L. ULIANA*; S. HOTT; S. F. LISBOA; L. B. M. RESSTEL. *Univ. of São Paulo.*

9:00 III9 **189.30** Involvement of CRF1 receptors in the BNST noradrenergic neurotransmission modulating the contextual fear conditioning in rats. S. C. HOTT*; F. V. GOMES; D. L. M. ULIANA; L. B. M. RESSTEL. *Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

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POSTER

190. Neural Mechanisms of Memory Consolidation and Reconsolidation

Theme F: Cognition and Behavior

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

8:00 III10 **190.01** The effect of post-retrieval extinction of nicotine Pavlovian memories in rats trained to self-administer nicotine. A. AUBER; N. MUTHU KARUPPASAMY; M. PEDERCINI; D. BERTOGLIO; V. TEDESCO; S. R. GOLDBERG*; C. CHIAMULERA. *NIDA, IRP, NIH, DHHS, Univ. of Verona.*

9:00 III11 **190.02** Depletion of perineuronal nets in the amygdala enhances erasure of drug memories. Y. XUE*; L. XUE; J. LIU; J. HE; S. SUN; J. DENG. *Peking Univ.*

10:00 III12 **190.03** VTA controls protein synthesis-dependent memory consolidation in the hippocampus. D. MONCADA*. *Leibniz Inst. For Neurobio.*

11:00 III13 **190.04** ▲ Electrophysiological, behavioral and computational investigations of memory reconsolidation in the rat hippocampus. Z. TRAHAN; J. LINES; R. MICHAEL; J. WHITE; B. JONES; M. TATSUNO; J. FELLOUS*. *Univ. of Arizona, Univ. of Lethbridge, Univ. of Arizona.*

8:00 III14 **190.05** Simultaneous recording of left and right hippocampus during slow-wave sleep in rats. C. A. VILLALOBOS*; P. MALDONADO; J. L. VALDES. *Univ. De Chile, CENEM, BNI.*

9:00 III15 **190.06** Suppression of association synapses in piriform cortex during post-training sleep impairs odor memory selectivity. D. C. BARNES*; D. WILSON. *Nathan Kline Inst., City Univ. of New York Grad. Ctr.*

10:00 III16 **190.07** Orexin receptor-1 in locus coeruleus plays an important role in cue- dependent fear memory consolidation. *Kanazawa Univ.*

11:00 III17 **190.08** ▲ Temporally-graded retrograde amnesia following trace fear conditioning: Focal hippocampus damage or distal disruption? S. E. PULLINS*; C. L. BEEMAN; J. J. HOOGENDOORN; J. J. QUINN. *Miami Univ.*

8:00 III18 **190.09** ▲ Stress enhancement of fear learning in infant rats. R. SKIPPER*; C. E. FOY; W. C. HEATH; D. I. CLAFLIN; J. J. QUINN. *Miami Univ., Wright State Univ.*

9:00 III19 **190.10** Manganese-enhanced MRI reveals neuronal activity changes for memory consolidation in an inhibitory avoidance task. K. CHEN*; D. CHEN; K. LIANG. *Dept. of Psychology, Natl. Taiwan Univ., Dept. of Psychology, Natl. Cheng Kung Univ., Neurobio. and Cognitive Sci. Center, Natl. Taiwan Univ.*

10:00 III20 **190.11** The amygdala is necessary for trace, delay, and contextual fear conditioning. D. E. KOCHLI*; E. C. THOMPSON; E. A. FRICKE; A. F. POSTLE; K. D. LASH; S. L. HAGERTY; J. J. QUINN. *Miami Univ., Miami Univ.*

11:00 III21 **190.12** Characterizing the effects of complete hippocampal lesions on trace and contextual fear conditioning following a 30 day lesion-to-test interval. C. BEEMAN*; J. J. HOOGENDOORN; S. E. PULLINS; J. J. QUINN. *Miami Univ.*

8:00 III22 **190.13** Downstream circuit analysis of an optogenetically reactivated memory. K. K. COWANSAGE*; M. MAYFORD. *The Scripps Res. Inst.*

9:00 III23 **190.14** Triggering of long-term fear memory from a primed neuronal state is dissociable from the reconsolidation of memory. R. G. PARSONS*; D. WALKER; M. DAVIS. *Emory Univ., Emory Univ.*

10:00 III24 **190.15** Appetitive information is able to update fear memory emotional content to a less aversive level. J. HAUBRICH*; A. P. CRESTANI; F. SANTANA; R. A. SIERRA ORDOÑEZ; J. M. DURAN; F. D. DUTRA; Q. K. ZANONA; L. DE OLIVEIRA ALVARES; J. A. QUILLFELDT. *Federal Univ. of Rio Grande Do Sul.*

11:00 III25 **190.16** Functional connectivity between the dorsal paired medial neurons and the mushroom bodies in the *Drosophila* memory circuit. B. L. CHRISTMANN*; P. R. HAYNES; L. C. GRIFFITH. *Brandeis Univ.*

8:00 III26 **190.17** Retrieval-induced forgetting in the learning of visuomotor transformations. C. YIN*; K. L. WEI. *Peking Univ.*

POSTER

191. Animal Learning and Memory: Cortical and Hippocampal Circuits II

Theme F: Cognition and Behavior

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

8:00 III27 **191.01** Involvement of the endocannabinoid system in promnesic effect induced by exercise. T. F. VIEIRA*; C. P. BASTOS; G. S. PEREIRA; F. A. MOREIRA; A. R. MASSENSINI. *Núcleo De Neurociências - Univ. Federal De Minas Gerais, Univ. Federal De Minas Gerais.*

9:00 III28 **191.02** Persistent plasticity at somatostatin-expressing hippocampal interneuron excitatory synapses. A. LA FONTAINE*; I. LAPLANTE; J. LACAILLE. *Univ. de Montréal, Univ. de Montréal.*

10:00 III29 **191.03** Lesions of the parietal cortex impair path integration but not performance in the water maze. M. SAPIURKA*; L. R. SQUIRE; R. E. CLARK. *UCSD, VAMCSD, UCSD, UCSD.*

11:00 III30 **191.04** ▲ Transient inactivation of the thalamic nucleus reuniens produces deficits of a working-memory dependent visuospatial conditional discrimination task. M. PATEL*; H. L. HALLOCK; A. WANG; D. M. LAYFIELD; S. M. AMOS; A. L. GRIFFIN. *Univ. of Delaware.*

8:00 III31 **191.05** Opioid modulation of acquisition of forebrain-dependent associative learning. R. LOH*; R. GALVEZ. *Univ. of Illinois: Urbana-Champaign, Univ. of Illinois - Urbana Champaign.*

9:00 III32 **191.06** Hippocampal theta sequences transiently represent goal locations as rats perform an intertemporal foraging task. A. WIKENHEISER*; A. D. REDISH. *Univ. of Minnesota, Univ. of Minnesota.*

10:00 III33 **191.07** Operant conditioning of cortical activity using on-line two-photon population calcium imaging. Y. KANEMOTO*; M. HAUSSER. *UCL.*

11:00 III34 **191.08** Monitoring of memories for unique sequences by monkeys (Macaca mulatta). V. L. TEMPLER*; E. K. BROWN; R. R. HAMPTON. *Emory Univ.*

8:00 III35 **191.09** The default mode network in a rat model of neurocognitive aging. J. A. ASH*; H. LU; Y. YANG; P. PARK; G. S. HILL; J. M. LONG; E. A. STEIN; P. R. RAPP. *Natl. Inst. On Aging, Natl. Inst. on Drug Abuse.*

9:00 III36 **191.10** Place-cell sequences depict behaviorally relevant trajectories during sleep. B. E. PFEIFFER*; D. J. FOSTER. *Johns Hopkins Univ.*

10:00 III37 **191.11** Pharmacogenetic silencing of the retrosplenial cortex impairs sensory preconditioning. S. ROBINSON*; B. L. ROTH; D. J. URBAN; B. W. LUIKART; R. J. SCHNEYER; A. R. PASTERNAK; D. J. BUCCI. *Dartmouth Col., Univ. of North Carolina Sch. of Med., Geisel Sch. of Medicine, Dartmouth Col.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 III38 **191.12** The hippocampal CA^2 ensemble is sensitive to changes in context. M. WINTZER*; R. BOEHRINGER; D. POLYGALOV; Y. SHINOHARA; T. J. MCHUGH. *Riken BSI.*

8:00 III39 **191.13** Representation of reward predicting melodies in mice dorsal hippocampal neurons. S. KIM*; S. ROYER. *Korea Inst. of Sci. and Technol.*

9:00 III40 **191.14** Learning of reward position associations in a cue-enriched treadmill. J. KOENIG*; R. SEBASTIEN. *Korea Inst. of Sci. and Technol.*

10:00 III41 **191.15** C-terminal truncated Disc1 shows altered hippocampal ripple events: Implication in adult onset major mental illness. D. J. FOSTER*; J. HARROLD; C. M. ALTIMUS; H. JAARO-PELED; A. SAWA. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. Of Med.*

11:00 III42 **191.16** ● Frequency modulation of local theta oscillations in the hippocampus CA1 region. M. FATTAHI*; S. ROYER. *Korea Institude of Sci. and Technol.*

8:00 III43 **191.17** Hippocampal ripple events reflect learning of prior spatial environments providing an assay of hippocampal function in awake, behaving mice. C. M. ALTIMUS*; J. B. HARROLD; R. H. REEVES; D. J. FOSTER. *Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med.*

9:00 III44 **191.18** Medial precentral cortex neurons mediate the transformation of spatial information into action planning and execution. D. A. NITZ*; J. OLSON; A. KAPPEL; A. OVEROYE; S. MONTGOMERY. *UCSD, UCSD, UCSD, Univ. of California, Santa Cruz.*

10:00 III45 **191.19** Behavioral characterization of the functional role of the CA^2 hippocampal subfield. T. J. MCHUGH*; L. M. Y. YU; A. J. HUANG. *RIKEN Brain Sci. Inst. - Wako.*

11:00 III46 **191.20** Cholinergic and glutamatergic antagonism in retrosplenial cortex impair contextual fear retrieval. K. LEADERBRAND*; K. A. CORCORAN; J. RADULOVIC. *Northwestern Univ.*

8:00 JJJ1 **191.21** Aversive responses in the lateral habenula of the freely behaving mouse. R. BOEHRINGER*; K. NIISATO; D. POLYGALOV; H. OKAMOTO; T. J. MCHUGH. *Riken Brain Sci. Inst.*

9:00 JJJ2 **191.22** Modulation of opiate actions by hippocampal NMDA receptors and environmental experience. A. Z. WEITEMIER*; T. J. MCHUGH. *RIKEN Brain Sci. Inst.*

10:00 JJJ3 **191.23** Look-ahead probes may be responsible for non-local forward activation of MEC grid cells during an appetitive choice task. K. GUPTA*; U. M. ERDEM; M. E. HASSELMO. *Boston Univ.*

11:00 JJJ4 **191.24** Selective removal of GABAergic interneurons causes distinct behavioral phenotypes depending on location and duration of depletion. J. M. REICHEL; W. HÄRTIG; G. ROGEL; A. MEDERER; K. KÄFER; H. MARTENS; S. NISSL; R. ANDERS; J. GROSCHE; J. DINE*; C. T. WOTJAK. *Max Planck Inst. of Psychiatry, Univ. Leipzig, Synaptic Systems GmbH, Max Planck Inst. of Psychiatry.*

8:00 JJJ5 **191.25** Impaired hippocampal spatial representation in the Fmr1-KO mouse model of Fragile X mental retardation. T. ARBAB*; C. A. BOSMAN; R. WILLEMSEN; F. P. BATTAGLIA; C. M. A. PENNARTZ. *Univ. of Amsterdam, Erasmus Med. Ctr., Donders Ctr. for Neurosci.*

9:00 JJJ6 **191.26** Spike-LFP coordination in the absence of CA3. S. J. MIDDLETON*; T. J. MCHUGH. *Riken Brain Sci. Inst.*

10:00 JJJ7 **191.27** Hippocampal replay events in the context of a spatial working memory task. H. TANILA*; S. KU; F. KLOOSTERMAN; M. A. WILSON. *Univ. Eastern Finland, MIT, NeuroElectronics Res. Flanders.*

11:00 JJJ8 **191.28** Retrosplenial cortex activity integrates allocentric, route-centric, and egocentric spatial frames of reference. A. ALEXANDER*; D. A. NITZ. *UCSD, UCSD.*

8:00 JJJ9 **191.29** ● Theta-locked photo-stimulation of hippocampal CA1 neurons to investigate the mechanisms of place field formation. T. GEILLER*; S. ROYER. *KIST.*

9:00 JJJ10 **191.30** Novel spatial exploration does not induce immediate early gene expression in rat hippocampal area CA^2. S. FARRIS*; G. M. ALEXANDER; S. M. DUDEK. *NIH/NIEHS.*

POSTER

192. Learning and Memory: Genes, Signaling, and Neurogenesis I

Theme F: Cognition and Behavior

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

8:00 JJJ11 **192.01** Pharmacological assessment of a selectively bred hyperactive mouse line to model ADHD. P. MAJDAK*; P. J. BUCKO; A. L. HOLLOWAY; A. KOBEISSI; T. K. BHATTACHARYA; J. S. RHODES. *UIUC.*

9:00 JJJ12 **192.02** ▲ Genetic variation in exercise-induced hippocampal neurogenesis and learning. J. R. MERRITT*; P. MAJDAK; J. S. RHODES. *Univ. of Illinois At Urbana-Champaign, Univ. of Illinois At Urbana-Champaign.*

10:00 JJJ13 **192.03** Contribution of new neurons to the pro-cognitive effects of exercise using the Nestin-thymidine kinase transgenic mouse model. G. F. HAMILTON*; P. MAJDAK; M. L. MUSTROPH; R. V. HOLLAND; D. S. MILLER; J. S. RHODES. *Univ. of Ilinois, Univ. of illinois.*

11:00 JJJ14 **192.04** The influence of nutritional supplementation with Epigallacetechin gallate and β-alanine in combination with physical exercise on adult hippocampal neurogenesis and contextual fear conditioning in young adult BALB/cJ mice. J. S. RHODES*; J. M. OSSYRA; H. C. MACH; T. K. BHATTACHARYA; T. GIBBONS; B. D. PENCE; J. A. WOODS; R. W. JOHNSON. *Univ. Illinois.*

8:00 JJJ15 **192.05** Identifying neuropeptides induced by exposure to a cocaine-associated context and exercise in male C57BL/6J mice. M. L. MUSTROPH*; S. E. DOWD; E. V. ROMANOVA; J. V. SWEEDLER; C. N. KILBY; J. S. RHODES. *Univ. of Illinois Urbana-Champaign, Univ. of Illinois Urbana-Champaign.*

9:00 JJJ16 **192.06** Transgenic zebra finches reveal the role of genetic factors in the postnatal song learning. K. ABE*; D. WATANABE. *Kyoto Univ., Japan Sci. and Technol. Agency, Kyoto Univ., Kyoto Univ.*

10:00 JJJ17 **192.07** Bone marrow-derived mesenchymal stem cells protect against memory impairment and increase the survival of new neurons in the hippocampus in streptozotocin-induced diabetic mice. M. NAKANO*; K. ISHIKAWA; K. ATAKA; K. NAGAISHI; M. FUJIMIYA. *Sapporo Med. Univ.*

11:00 JJJ18 **192.08** Activation of the α1a-adrenergic receptor rescues negative effects of neurogenesis ablation on learning & memory. B. L. GOLDENSTEIN*; D. PEREZ; V. DOZE. *Univ. of North Dakota, Cleveland Clin.*

8:00 JJJ19 **192.09** Radial cells react contemporaneously with onset of cytogenesis immediately following injury to the avian hippocampus. R. B. VAUGHAN*; J. L. CAMACHO; D. W. LEE. *California State Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 JJJ20 **192.10** Adult-born dentate gyrus neurons are required for online processing in a spatial discrimination task. J. ZHUO*; M. M. DESAI; K. GUERRA; A. MOHAMMED; N. T. M. ROBINSON; X. GU; M. E. BUCKLIN; B. D. ALLEN; J. G. BERNSTEIN; M. P. ELAM; K. T. LE; A. JASANOFF; E. S. BOYDEN; X. HAN. *Boston Univ., MIT, MIT, Boston Univ., Boston Univ., MIT, Boston Univ.*

10:00 JJJ21 **192.11** Impaired spatial learning and reduced adult hippocampal neurogenesis in histamine H1-receptor knockout mice. A. ZLOMUZICA*; J. BUSCHERT; V. AROLT; E. DERE; O. AMBRÉE. *Ruhr Univ. Bochum, Inst. of Exptl. Psychology, Univ. of Düsseldorf, Germany, Dept. of Psychiatry, Univ. of Münster, Germany, UMR 7102, Neurobiologie des Processus Adaptatifs, Univ. Pierre et Marie Curie, Paris 6, Paris, France.*

11:00 JJJ22 **192.12** Time-lapse *in vivo* imaging of Arc/Arg3.1 expression in adult mouse CA1 hippocampus reveals cellular turnover in the representation of life experience. A. ATTARDO*; J. LU; T. KAWASHIMA; H. OKUNO; J. E. FITZGERALD; H. BITO; M. J. SCHNITZER. *Stanford Univ., Howard Hughes Med. Inst., Grad. Sch. Med., Univ. of Tokyo, CREST-JST, CNC program.*

8:00 JJJ23 **192.13** Deletion of PTEN results in deficits in fear conditioning and increases the Fragile X Mental Retardation protein. G. SMITH*; J. MORRISON; J. WHITE; J. LUGO. *Bayor Univ., Baylor Univ.*

9:00 JJJ24 **192.14** Beta1-noradrenergic receptor and CREB phosphorylation in the medial amygdala are key modulators of social memory. L. COUTELLIER*; P. M. ARDESTANI; M. SHAMLOO. *Stanford Univ.*

10:00 JJJ25 **192.15** ● Epigenetic enhancement of remembering "what": An account of neuroplasticity that links histone-deacetylase regulation of gene expression to adaptive changes in behavior. K. M. BIESZCZAD*; K. BECHAY; J. R. RUSCHE; N. M. WEINBERGER; J. L. MCGAUGH; M. A. WOOD. *UC Irvine, Ctr. for the Neurobio. of Learning and Memory, Ctr. for Hearing Res., Repligen Corp.*

11:00 JJJ26 **192.16** ● Neuronal-specific deletion of pten results in motor learning deficits and hyperactivity. A. J. HOLLEY*; G. SMITH; E. ARBUCKLE; J. LUGO. *Baylor Univ., Baylor Univ.*

8:00 JJJ27 **192.17** Increased impulsivity and reduced maternal care in mice selectively bred for increased physical activity in the home cage. C. KILBY*; J. OSSYRA; A. COBERT; P. MAJDAK; J. RHODES. *Beckman Inst.*

9:00 JJJ28 **192.18** Conditional deletion of miR-132/212 in excitatory forebrain neurons impairs memory and alters the hippocampal transcriptome. K. F. HANSEN*; A. M. HESSE; S. IMPEY; S. ARTHUR; K. OBRIETAN. *The Ohio State Univ., Oregon Hlth. and Sci. Univ., Univ. of Dundee.*

10:00 JJJ29 **192.19** Dissociating epigenetic mechanisms of memory in the hippocampus and perirhinal cortex of rats. K. A. MITCHNICK*; M. O'HARA; O. ZAIKA; B. E. KALISCH; B. D. WINTERS*. *Univ. of Guelph.*

11:00 JJJ30 **192.20** Male-specific social and cognitive deficits in mice haploinsufficient for Protocadherin 10, an autism-associated gene. H. SCHOCH*; A. S. KREIBICH; H. C. DOW; S. HIRANO; M. TAKEICHI; R. T. SCHULTZ; E. BRODKIN; T. ABEL. *Univ. of Pennsylvania, Univ. of Pennsylvania, Kochi Med. Sch., RIKEN Ctr. for Developmental Biol., Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Univ. of Pennsylvania.*

8:00 JJJ31 **192.21** Short-term high-fat, high-glycemic index diet exposure induces cognitive impairments and transient deficits in hippocampal energy utilization. S. L. HARGRAVE*; K. P. KINZIG. *Purdue Univ.*

9:00 JJJ32 **192.22** RacGAP α2-chimaerin regulates developmental spine elimination to establish normal hippocampus-dependent learning. R. IWATA*; K. OHI; H. MATSUKAWA; Y. KOBAYASHI; A. MASUDA; H. MIZUNO; M. IWAMA; H. GOTO; H. YAMAMORI; Y. YUKA; M. TANAKA; R. HASHIMOTO; S. ITOHARA; T. IWASATO. *Natl. Inst. of Genet., the Grad. Univ. for Advanced Studies (SOKENDAI), Osaka Univ. Grad. Sch. of Med., RIKEN Brain Sci. Inst., United Grad. Sch. of Child Development, Osaka Univ.*

10:00 JJJ33 **192.23** Genetic dissection of variation in hippocampal structure and learning in the expanded family of BXD mouse strains. W. E. CRUSIO*; M. ALGEO; B. BONHEUR; L. LU; R. W. WILLIAMS; A. DELPRATO. *Univ. Bordeaux and CNRS, Univ. of Tennessee.*

11:00 JJJ34 **192.24** High throughput screening for behavioural and cognitive phenotypes. M. STEWART; P. M. NOLAN*; S. WELLS; A. ACEVEDO-AROZENA. *MRC Harwell.*

8:00 JJJ35 **192.25** The genomic portrait of hippocampal CA1 neurons: Identification and quantification of virtually all RNAs in single mammalian neurons using semiconductor sequencing. L. L. MOROZ*; S. HARDEN; A. B. KOHN; A. FODOR; M. CITARELLA; A. KUMAR; C. J. FRAZIER; T. FOSTER. *Univ. of Florida, Univ. of Florida.*

POSTER

193. Learning and Memory in *Aplysia*

Theme F: Cognition and Behavior

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

8:00 JJJ36 **193.01** The assemblies, annotation and visualization of large-scale *Aplysia* transcriptome datasets: From single neurons in memory circuits to development. A. B. KOHN*; J. ALFOLDI; F. DI PALMA; K. LINDBLAD-TOH; J. JOHNSON; Q. YANG; R. D. HAWKINS; L. L. MOROZ. *Universtiy of Florida Whitney Lab., Broad Inst., Columbia Univ., Univerity of Florida.*

9:00 JJJ37 **193.02** Comparative transcriptomics of symmetrical serotonergic neurons: Establishing of neurogenomic database for integrative phenotypic and molecular analysis of *Aplysia* neurons. E. C. DABE*; M. CITARELLA; R. S. SANFORD; A. B. KOHN; L. L. MOROZ. *Univ. of Florida Whitney Lab., Univ. of Florida, Univ. of Florida Whitney Lab., Univ. of Florida Mcknight Brain Inst.*

10:00 JJJ38 **193.03** Neuronal genes in *Aplysia* californica development: Analyzing transcriptome data with an automated pipeline. R. S. SANFORD*; M. R. CITARELLA; E. C. DABE; A. B. KOHN; L. L. MOROZ. *The Whitney Lab. For Marine Biosci., Univ. of Florida, Univ. of Florida McKnight Brain Inst.*

11:00 JJJ39 **193.04** Single-neuron transcriptome profiling of the *Aplysia* siphon-withdrawal reflex circuit. C. BOSTWICK*; Q. YANG; A. FODOR; T. P. MOROZ; A. B. KOHN; R. D. HAWKINS; L. L. MOROZ. *Univ. of Florida, Whitney Marine Lab., Columbia Univ., New York State Psychiatric Inst., McKnight Brain Inst., Univ. of Florida.*

8:00 JJJ40 **193.05** ● Using a computational model of the central pattern generator (CPG) for feeding in *Aplysia* to evaluate neuronal correlates of operant reward learning (RL). D. A. BAXTER*; J. H. BYRNE. *The Univ. of Texas Med. Sch. At Houston, The Univ. of Texas Med. Sch. at Houston.*

9:00 JJJ41 **193.06** A single-cell analogue of operant reward learning (RL) reduced the excitability of B4/5. H. CHEN; C. NEVEU; D. A. BAXTER; J. H. BYRNE*. *Univ. Texas Med. Sch. at Houston, Univ. Texas Med. Sch. at Houston.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 JJJ42 **193.07** An *in vitro* analogue of operant reward learning (RL) reduced the excitability of neuron B4/5 and modified its synaptic connections. C. NEVEU*; H. M. CHEN; D. A. BAXTER; J. H. BYRNE. *The Univ. of Texas Med. Sch. At Houston.*

11:00 JJJ43 **193.08** Rescuing impaired long-term facilitation (LTF) at sensorimotor (SN-MN) synapses of *Aplysia* following siRNA knock down of CREB1. L. ZHOU*; Y. ZHANG; R. LIU; D. A. BAXTER; P. SMOLEN; L. J. CLEARY; J. H. BYRNE. *The Univ. of Texas Med. Sch. At Houston.*

8:00 JJJ44 **193.09** Anthracycline enhances phosphorylation of ERK and basal excitability in *Aplysia.* Y. ZHANG*; B. L. COUGHLIN; L. J. CLEARY; D. A. BAXTER; J. H. BYRNE. *Univ. Texas.*

9:00 JJJ45 **193.10** Decrease in response to cholinergic afferents accounts for short-term memory after training with inedible food in an *in vitro* Aplysia feeding preparation. A. J. SUSSWEIN*; J. M. MCMANUS; H. J. CHIEL. *Bar-Ilan Univ., Case Western Reserve Univ., Case Western Reserve Univ.*

10:00 JJJ46 **193.11** Tenm/Odz (tenurin) gene expression is increased after training and memory retrieval with inedible food in *Aplysia.* M. FRANKEL; I. HURWITZ*; R. WIDES; A. J. SUSSWEIN. *Bar-Ilan Univ., Bar-Ilan Univ., Bar-Ilan Univ.*

11:00 JJJ47 **193.12** Balance between blockers and promoters of memory after training with inedible food in *Aplysia:* Memory is induced when factors that block memory are combined. R. LEVY*; I. HURWITZ; A. J. SUSSWEIN. *Bar Ilan Univ., Bar Ilan Univ.*

8:00 JJJ48 **193.13** Distinct growth factor families have unique temporal roles in the induction of two-trial long-term memory in *Aplysia.* A. M. KOPEC*; T. J. CAREW. *New York Univ.*

9:00 JJJ49 **193.14** IGF-II facilitates the recruitment of MAPK signaling and promotes neuronal growth in *Aplysia* californica. J. J. RIEPE*; G. T. PHILIPS; X. YE; T. J. CAREW. *New York Univ.*

10:00 JJJ50 **193.15** Forgotten experience alters the molecular requirements for subsequent memory formation in *Aplysia* californica. G. T. PHILIPS*; S. A. MENGES; J. J. RIEPE; T. J. CAREW. *New York Univ., UC Irvine.*

11:00 JJJ51 **193.16** Sleep deprivation disrupts short and long-term operant memory in *Aplysia.* H. C. KRISHNAN; C. E. GANDOUR; J. RAMOS; L. C. LYONS*. *Florida State Univ.*

8:00 JJJ52 **193.17** Induction of associative olfactory memory by targeted activation of the memory circuits in *Drosophila* larvae. T. HONDA*; M. YOSHIDA-KASIKAWA; K. FURUKUBO-TOKUNAGA. *Univ. of Tsukuba, Univ. of Tsukuba.*

9:00 JJJ53 **193.18** ▲ A novel *in vitro* analog co-expressing cellular correlates of sensitization and suppression of feeding in Aplysia. H. A. WEISZ; M. L. WAINWRIGHT; R. MOZZACHIODI*. *Texas A&M Univ. - Corpus Christi.*

10:00 JJJ54 **193.19** Long-term sensitization training in *Aplysia* decreases the excitability of a decision-making neuron critical for feeding through a sodium-dependent mechanism. J. S. HERNANDEZ*; M. WAINWRIGHT; R. MOZZACHIODI. *Univ. of Massachusetts - Amherst, Texas A&M Univ. - Corpus Christi.*

11:00 JJJ55 **193.20** The role of Arf GEFs in homosynaptic depression in *Aplysia.* S. LU; P. SHRESTHA; A. PANDEY; M. P. GRAVES; T. W. ABRAMS*. *U of Maryland Med. Sch.*

8:00 JJJ56 **193.21** ▲ An automated protocol for producing whole-body long-term habituation in *Aplysia* californica suitable for analyzing the transcriptional mechanisms of memory. G. HOLMES; A. CYRIAC; J. LASS; A. MEISSEN; I. E. CALIN-JAGEMAN; R. CALIN-JAGEMAN*. *Dominican Univ., Dominican Univ.*

POSTER

194. Neural Circuits Mediating Impulsivity and Aggression

Theme F: Cognition and Behavior

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

8:00 JJJ57 **194.01** Parsing self-control in incarcerated criminals: Impulsive-antisocial behavior tracks variability in corticostriatal circuit structure. H. M. DORFMAN*; E. K. KASTMAN; A. R. BASKIN-SOMMERS; K. A. KIEHL; J. P. NEWMAN; J. W. BUCKHOLTZ. *Harvard Univ., McLean Hosp., Univ. of Wisconsin-Madison, Univ. of New Mexico, MIND Res. Network, Harvard Univ., Massachusetts Gen. Hosp.*

9:00 JJJ58 **194.02** Parsing self-control in incarcerated criminals: Selective mapping of psychopathy and externalizing to functional circuits for response inhibition and interference suppression. A. M. RODMAN*; E. K. KASTMAN; H. M. DORFMAN; A. R. BASKIN-SOMMERS; K. A. KIEHL; J. P. NEWMAN; J. W. BUCKHOLTZ. *Harvard Univ., McLean Hosp., Univ. of Wisconsin-Madison, Univ. of New Mexico, Mind Res. Network, Harvard Univ., Massachusetts Gen. Hosp.*

10:00 JJJ59 **194.03** Parsing self-control in incarcerated criminals: Aberrant striatal function underlies biased assignment of subjective value to immediate rewards in psychopathic offenders. E. K. KASTMAN*; H. M. DORFMAN; A. R. BASKIN-SOMMERS; K. A. KIEHL; J. P. NEWMAN; J. W. BUCKHOLTZ. *Harvard Univ., McLean Hosp., Univ. of Wisconsin, Univ. of New Mexico, Mind Res. Network, Harvard Univ., Massachusetts Gen. Hosp.*

11:00 JJJ60 **194.04** Parsing self-control in incarcerated criminals: Aggression and impulsive-antisocial behavior track variability in reward-related corticostriatal circuit function. A. J. MILLNER*; E. K. KASTMAN; H. M. DORFMAN; A. BASKIN-SOMMERS; K. A. KIEHL; J. P. NEWMAN; J. W. BUCKHOLTZ. *Harvard Univ., Univ. of Wisconsin-Madison, McLean Hosp., Univ. of New Mexico, Mind Res. Network, Harvard Univ., Massachusetts Gen. Hosp.*

8:00 JJJ61 **194.05** Intermittent explosive disorder is associated with reduced cortical and increased subcortical activations modulated by trait anger. M. I. FROBOSE*; A. B. KONOVA; S. J. MOELLER; M. A. PARVAZ; R. Z. GOLDSTEIN; N. ALIA-KLEIN. *Icahn Sch. of Med. at Mount Sinai, Donders Ctr. for Cognitive Neuroimaging, Stony Brook Univ.*

9:00 JJJ62 **194.06** Functional circuitry and mechanism of aggression regulation in mice. L. WONG*; G. CHEN; J. FENG; H. BERNSTEIN; D. LIN. *New York Univ. Sch. Of Med.*

10:00 JJJ63 **194.07** ● Endocannabinoid system involvement in impulsivity and decision-making. C. NORRIS*; P. E. MALLET. *Wilfrid Laurier Univ.*

11:00 JJJ64 **194.08** Long-term effects of repeated exposure to methylphenidate during the early adolescent period on impulsive behavior. Z. ABBAS*; D. PALACIOS; G. HERNANDEZ; A. ARVANITOGIANNIS. *Concordia Univ., Univ. de Montréal.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 JJJ65 **194.09** ▲ Effects of taurine on crayfish aggression. J. J. BAHNSEN; T. N. LIPPINCOTT; K. MAGUIRE; R. F. WALDECK*. *Univ. of Scranton, Univ. of Scranton, Univ. of Scranton.*

9:00 JJJ66 **194.10** ● Novel vasopressin antagonists attenuate aggressive behavior in mice. N. G. SIMON; A. KROSSER; A. SLENKER; S. LU*. *Lehigh Univ., Azevan Pharmaceuticals.*

10:00 JJJ67 **194.11** Mercury-treated voles display stranger-directed aggression when no avenue for stranger-avoidance is available. R. LEWIS; J. CURTIS*. *Oklahoma State Univ., Oklahoma State Univ.*

POSTER

195. Evolution and Comparative Anatomy II

Theme F: Cognition and Behavior

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

8:00 JJJ68 **195.01** Hemispheric specialization for dynamic face processing: A comparative fMRI study between human and non-human primates. F. DE WINTER*; Q. ZHU; J. VAN DEN STOCK; K. NELISSEN; B. DE GELDER; W. VANDUFFEL; M. VANDENBULCKE. *Univ. of Leuven, Univ. of Leuven, Maastricht Univ., Tilburg Univ., Athinoula A. Martinos Ctr. for Biomed. Imaging, Harvard Med. Sch.*

9:00 JJJ69 **195.02** Dendritic morphology of pyramidal neurons across the visual stream: A direct comparison of chimpanzees and humans. B. M. SCHILDER*; O. ADEYO; O. GRINKER; A. KNOP; W. HOPKINS; B. JACOBS; C. STIMPSON; C. SHERWOOD. *The George Washington Univ., Georgia State Univ., Colorado Col.*

10:00 JJJ70 **195.03** A comparative white matter atlas of humans, chimpanzees (Pan troglodytes), and bonobos (Pan paniscus) using diffusion tensor imaging. D. J. COPPETO*; T. M. PREUSS; K. L. BRYANT; J. K. RILLING. *Emory Univ., Emory Univ., Emory Univ., Emory Univ.*

11:00 KKK1 **195.04** Stereological investigation of the number of neurons in the cortex of the human superior temporal gyrus. M. SHELEY; N. BARGER; C. SCHUMANN*. *UC Davis MIND Inst.*

8:00 KKK2 **195.05** Parallel evolution of a large neocortex: Dolphins and humans compared using cortical surface reconstruction. M. I. SERENO*. *Univ. Calif San Diego, Univ. Col. London.*

9:00 KKK3 **195.06** Evolution of brain and behavior in elephants and humans compared. L. N. IRWIN*. *Univ. Texas at El Paso.*

10:00 KKK4 **195.07** White matter asymmetry of the superior longitudinal fasciculus and corresponding gray matter asymmetry of the parietal operculum and planum temporale in chimpanzees (Pan troglodytes). K. A. PHILLIPS*; D. PAREDES; J. TAGLIALATELA; C. C. SHERWOOD; W. D. HOPKINS. *Trinity Univ., Kennesaw State Univ., The George Washington Univ., Georgia State Univ.*

11:00 KKK5 **195.08** Synaptosomal LDH isoenzyme pattern in primate brain evolution: A comparative study between neocortex and striatum. T. I. DUKA*; Z. COLLINS; S. M. ANDERSON; M. RAGHANTI; J. J. ELY; P. R. HOF; D. E. WILDMAN; L. I. GROSSMAN; C. C. SHERWOOD. *George Washington Univ., Kent State Univ., Alamogordo Primate Facility, Mount Sinai Sch. of Med., Wayne State Univ. Sch. of Med.*

8:00 KKK6 **195.09** Relating architectonic differentiation and interareal distance to corticocortical connection patterns. S. F. BEUL*; S. GRANT; H. BARBAS; C. C. HILGETAG. *Univ. Med. Ctr. Hamburg-Eppendorf, City Univ. London, Boston Univ.*

9:00 KKK7 **195.10** Morphological integration and modularity in human and chimpanzee brains. A. GÓMEZ-ROBLES*; W. D. HOPKINS; C. C. SHERWOOD. *The George Washington Univ., Georgia State Univ.*

10:00 KKK8 **195.11** Characterizing NR2C1 expression in neural progenitors. J. L. BAKER*; E. M. PARONETT; B. WOOD; B. A. KARPINSKI; M. S. FRALISH; T. M. MAYNARD. *The George Washington Univ., The George Washington University, Ctr. for the Advanced Study of Hominid Paleobiology, Anthrop., The George Washington Univ., GW Inst. for Neuroscience, The George Washington Univ., Human Origins program, Natl. Museum of Natural History, Smithsonian Inst., The George Washington Univ.*

11:00 KKK9 **195.12** The striatum in the evolution of learned vocalizations: Understanding the neurobiological precursors to human speech using a chimpanzee model. S. BIANCHI*; T. DUKA; G. MUNTANÉ; B. SCHILDER; C. D. STIMPSON; W. D. HOPKINS; J. P. TAGLIALATELA; H. R. PATRICK; C. C. SHERWOOD. *The George Washington Univ., Georgia State Univ., Kennesaw Univ., Mount Sinai, New York Consortium in Evolutionary Primatology.*

8:00 KKK10 **195.13** The genetic architecture and evolution of brain cortical gyrification in a pedigreed primate population. E. G. ATKINSON*; J. ROGERS; M. C. MAHANEY; L. A. COX; J. M. CHEVERUD. *Washington Univ. In St. Louis, Baylor Col. of Med., Texas Biomed. Res. Inst.*

9:00 KKK11 **195.14** Teneurin c-terminal associated peptide (TCAP)-1distribution in the central nervous system of the non-human primate (Sapajus apella). C. A. CASATTI*; K. R. TORRES; A. V. DA SILVA; D. A. LOVEJOY; J. C. BITTENCOURT. *Sao Paulo State Univ., Sao Paulo Univ., Univ. of Toronto.*

POSTER

196. Vocal Communication: Avian I

Theme F: Cognition and Behavior

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

8:00 KKK12 **196.01** Neurochemical contributions to vocal motor control. L. E. MATHESON*; J. T. SAKATA. *McGill Univ.*

9:00 KKK13 **196.02** Persistence and predictability of adult song plasticity. L. SMITH*; J. T. SAKATA. *McGill Univ.*

10:00 KKK14 **196.03** Cellular architecture of a zebra finch pre-motor vocal region. M. J. BASISTA*; W. WU; R. BERTRAM; R. HYSON; F. JOHNSON. *Florida State Univ., Florida State Univ., Florida State Univ., Florida State Univ.*

11:00 KKK15 **196.04** Electrophysiological characterization and computational models of HVC neurons in the zebra finch. A. DAOU*; M. ROSS; F. JOHNSON; R. HYSON; R. BERTRAM. *Univ. Chicago, Florida State Univ., Florida State Univ., Florida State Univ.*

8:00 KKK16 **196.05** Anatomical evidence for parallel processing in a cortical pre-motor region during the sensorimotor period of vocal learning. K. C. ELLIOTT*; W. WU; R. BERTRAM; R. HYSON; F. JOHNSON. *Florida State Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 KKK17 **196.06** The contribution to song of known ionic currents in the HVC of the zebra finch. M. T. ROSS*; A. DAOU; R. BERTRAM; F. JOHNSON; R. L. HYSON. *Florida State Univ. Psychology Building.*

10:00 KKK18 **196.07** Gene expression specializations reveal core and unique shell regions of the parrot song system. M. CHAKRABORTY*; S. WALLØE; S. NEDERGAARD; E. E. FRIDEL; T. DABELSTEEN; B. PAKKENBERG; M. F. BERTELSEN; G. M. DORRESTEIN; S. E. BRAUTH; S. E. DURAND; E. D. JARVIS. *Howard Hughes Med. Inst., Univ. of Copenhagen, Duke Univ. Med. Ctr., Bispebjerg Univ. Hosp., Copenhagen Zoo, Dutch Res. Inst. of Avian and Exotic Animals (NOIVBD), Univ. of Maryland, LaGuardia Community Col., Howard Hughes Med. Institute, Duke Univ. Med. Ctr.*

11:00 KKK19 **196.08** Predictive and preceding motor activity in biophysical models of vocal production in songbirds. K. J. BROWN*; G. B. MINDLIN; D. MARGOLIASH. *Univ. of Chicago, Univ. of Buenos Aires, Univ. of Chicago.*

8:00 KKK20 **196.09** Symmetrical changes to song-related respiratory patterns following unilateral damage to premotor nucleus HVC. C. M. URBANO*; K. R. SECORA; B. CHUNG; A. LEMKE; B. G. COOPER. *Texas Christian Univ.*

9:00 KKK21 **196.10** Different neural circuits underlie learning of spectral and temporal aspects of birdsong. F. ALI*; T. M. OTCHY; C. PEHLEVAN; A. L. FANTANA; Y. BURAK; B. P. ÖLVECZKY. *Harvard Univ., Harvard Univ., Harvard Univ., Bowling Green State Univ., Hebrew Univ.*

10:00 KKK22 **196.11** Neurophysiological correlates of a milestone in vocal development. M. E. LUSIGNAN*; D. MARGOLIASH. *Univ. of Chicago, Univ. of Chicago.*

11:00 KKK23 **196.12** D1 dopamine receptor stimulation in the medial preoptic nucleus induces inverted-U shaped effects on sexually-motivated song in male European starlings. L. V. RITERS*; B. A. PAWLISCH; C. A. KELM-NELSON; S. A. STEVENSON. *Univ. of Wisconsin, Univ. of Massachusetts, Univ. of Wisconsin.*

8:00 KKK24 **196.13** Afferent connectivity of the substance P reactive nucleus (SPf) in the adult male zebra finch. K. J. BEINE; H. M. ANDREKUS; D. J. BAILEY*. *St. Norbert Col.*

9:00 KKK25 **196.14** New tool to modulate levels of endogenous testosterone in adult male songbirds. K. MURPHY*; S. SLAUGH; M. BURTON; D. WILSON; J. L. DUNNING; K. CARLSON; J. F. PRATHER. *Univ. of Wyoming.*

10:00 KKK26-DP9 **196.15** ▲ Modeling correspondence between auditory and motor pathways in the zebra finch song system with boolean logic. K. M. BECKER; T. HELIKAR; J. A. ROGERS; W. E. GRISHAM*. *Univ. of Nebraska at Omaha, Univ. of Nebraska at Omaha, Univ. of Nebraska at Omaha, UCLA.*

11:00 KKK27 **196.16** Expression analysis of gene family members related to deleted genes in birds: Possible implications for brain homology assessments. C. V. MELLO*; P. V. LOVELL; M. WIRTHLIN. *Oregon Hlth. Sci. Univ.*

8:00 KKK28 **196.17** Male song syntax controls nesting site preference behaviors in female starlings. J. A. COMINS*; T. Q. GENTNER. *UCSD, UCSD.*

9:00 KKK29 **196.18** Observational learning of an auditory discrimination task in Zebra Finches. G. NARULA*; R. H. R. HAHNLOSER. *Inst. of Neuroinformatics, Univ. of Zurich - ETH Zurich.*

10:00 KKK30 **196.19** Brief exposure to novel sounds alters receptive fields in songbird auditory forebrain. L. YANG*; D. S. VICARIO. *Rutgers Univ.*

11:00 KKK31 **196.20** Auditory responses in the songbird forebrain reflect acquired salience and individual learning rates in a behavioral discrimination paradigm. B. A. BELL*; M. L. PHAN; D. S. VICARIO. *Rutger's Univ.*

8:00 KKK32 **196.21** FoxP1, FoxP2 and FoxP4 expression, co-localization, interaction and their importance in song-learning in the zebra finch (taeniopygia guttata). E. MENDOZA*; K. TOKAREV; M. WEISS; D. DÜRING; P. BARSCHKE; N. ARPENIK; U. KOBALZ; C. SCHARFF. *Freie Univ., Bird Song Lab., Inst. of Biol.*

9:00 KKK33 **196.22** Short- and long-term depression in Area X of juvenile zebra finches. S. WOHLGEMUTH*; C. SCHARFF. *Freie Univ. Berlin, Animal Behavior.*

10:00 KKK34 **196.23** Early sensory-experience-dependent synaptic elimination in the songbird motor control circuit. J. GARST-OROZCO*; B. P. ÖLVECZKY. *Harvard Univ., Harvard Univ., Harvard Univ.*

11:00 KKK35 **196.24** ▲ Neuronal activation related to acquisition of song memory is dependent on vocal learning. N. CHIRATHIVAT; S. C. RAJA; A. J. BAE; S. LOTFI; S. M. H. GOBES*. *Wellesley Col.*

8:00 KKK36 **196.25** Statistical parametric mapping of experience-dependent immediate early gene expression in the initial phase of vocal learning. F. PIRLEPESOV*; M. DESHPANDE; T. LINTS. *Texas A&M Univ.*

9:00 KKK37 **196.26** Neuroanatomical and molecular studies of suboscine passerines provide clues to the evolution of vocal learning behavior. M. WIRTHLIN*; G. THOM E SILVA; A. L. P. ALEIXO; C. V. MELLO. *Oregon Hlth. & Sci. Univ., Museu Paraense Emilio Goeldi.*

10:00 KKK38 **196.27** Effects of statins on the quality of auditory memories and rate of neurogenesis: An avian model. U. AIYA; M. L. PIERCE; J. SANTOS; E. SOYMAN; S. C. TSOI; D. S. VICARIO; C. L. PYTTE*; M. L. PHAN. *Rutgers Univ., The Grad. Center, City Univ. of New York, Queens Col.*

POSTER

197. Computation, Modeling, and Simulation III

Theme G: Novel Methods and Technology Development

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

8:00 KKK39 **197.01** Machine learning applied to the identification of traumatic brain injury using diffusion tensor imaging. E. D. FAGERHOLM*; P. J. HELLYER; D. J. SHARP; R. LEECH. *Imperial Col. London.*

9:00 KKK40 **197.02** ● Registraton of the Atlas of the Human Brain to MNI/ICBM brain templates. J. K. MAI*; M. MAJTANIK. *H-Heine-Univ Dusseldorf.*

10:00 KKK41 **197.03** A computational method to quantify hippocampal MR contrast loss in a transgenic mouse model of Alzheimer's disease. G. IORDANESCU; P. VENKATASUBRAMANIAN; A. M. WYRWICZ*. *Northshore Univ. Healthsystem, Univ. of Chicago.*

11:00 KKK42 **197.04** A bayesian framework for simultaneously modeling neural and behavioral data. B. M. TURNER*; M. STEYVERS. *Stanford Univ., Univ. of California, Irvine.*

8:00 KKK43 **197.05** Revealing human cortical microstructure with ultra-high resolution *in-vivo* 7T MRI and anatomically-motivated computational modeling. J. DINSE; C. TARDIF; M. WAEHNERT; A. SCHAEFER; P. BAZIN; R. TURNER*. *Max-Planck-Institute For Human Cognitive and Brain Sci.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 KKK44 **197.06** Optimizing the Virtual Brain. T. HOPE*; Z. WOODHEAD; O. PARKER-JONES; C. J. PRICE; R. MCINTOSH; V. JIRSA. *Wellcome Trust Ctr. For Neuroimaging, Rotman Res. Institute, Baycrest Ctr., CNRS Univ. de la Méditerranée.*

10:00 KKK45 **197.07** Using Pareto optimality to explore the topology and dynamics of the human connectome. A. I. AVENA KOENIGSBERGER*; J. GOÑI; R. BETZEL; M. P. VAN DEN HEUVEL; A. GRIFFA; P. HAGMANN; O. SPORNS. *Indiana Univ., Univ. Med. Ctr. Utrecht and Rudolf Magnus Inst. of Neurosci., Univ. Hosp. Ctr. and Univ. of Lausanne, Ecole Polytechnique Fédérale de Lausanne.*

11:00 KKK46 **197.08** Developing a region-of-interest brain-state classifier informed by multiple neuroimaging techniques. M. WRONKIEWICZ*; E. LARSON; A. K. C. LEE. *Univ. of Washington.*

8:00 KKK47 **197.09** Can local (eeg), remote (emg, ecg) or weak (tms,tes) exogenous signals cause physiological effects in voltage sensors? J. F. GOMEZ-MOLINA*; C. YEPES; A. A. RESTREPO; F. LOPERA; A. L. GOMEZ-MOLINA. *Intnal Group of Neuro Cra 64c#48-94(603), Miembro Grupo de Neurociencia Clinica Las Americas, Grupo de Neurociencias Clinica Las Americas, Univ. EAFIT, ALEM Asociacion de Esclerosis Multiple, Intnal Group of Neuro-USA members.*

9:00 KKK48 **197.10** ● Analysis of brain oscillations by temporal derivatives. K. K. MAJUMDAR*. *Indian Statistical Inst.*

POSTER

198. Data Analysis and Statistics II

Theme G: Novel Methods and Technology Development

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

8:00 KKK49 **198.01** Body surface temperature measurement in the mouse using an infrared thermometer installed on the ceiling of a shelter. T. OKAYAMA*; T. GOTO; H. KOIKE; W. IIO; A. TOYODA. *Ibaraki University, Dept. of Agr., Tokyo Univ. of Agr. and Technol.*

9:00 KKK50 **198.02** Extracting gene-behavior relations in mice using continuous time hidden Markov modeling on longitudinal automated home cage data. E. AARTS; C. V. DOLAN; O. STIEDL*; B. KOOPMANS; M. LOOS; G. MAROTEAUX; A. B. SMIT; M. VERHAGE; S. VAN DER SLUIS. *VU Univ., VU Univ., VU Univ., VU Univ., Synaptologics BV, VU Med. Ctr.*

10:00 KKK51 **198.03** Assessment of cognitive interpretability of feature selection methods. S. H. MEHTA*; K. KAMPA; C. CHOU; R. TUNGARAZA; W. CHAOVALITWONGSE; T. GRABOWSKI. *Univ. of Washington, Univ. of Washington, SUNY Binghamton.*

11:00 KKK52 **198.04** Compressive neural circuit reconstruction using patterned optical stimulation. E. DYER*; D. B. MURPHY; R. G. BARANIUK; J. T. ROBINSON. *Rice Univ., Rice Univ.*

8:00 KKK53 **198.05** Evaluation of the amount of phase shift in the alpha rhythm. Y. NARUSE*; K. TAKIYAMA; M. OKADA; H. UMEHARA. *Cinet, NICT and Osaka Univ., Tamagawa Univ., Univ. of Tokyo, RIKEN BSI.*

9:00 KKK54 **198.06** Data transformations between rat brain atlases: Mapping central microinjection sites on stereotaxically aligned and anisotropically scaled digital atlas plates in Paxinos & Watson and Swanson reference spaces. C. E. WELLS*; A. M. KHAN. *The Univ. of Texas at El Paso, The Univ. of Texas at El Paso, Border Biomed. Res. Ctr.*

10:00 KKK55 **198.07** Decoding behavior from subthalamic nucleus local field potential signals using machine learning techniques. M. H. MAHOOR; A. O. HEBB*; J. NEDRUD; J. ZHANG. *Univ. of Denver, Colorado Brain and Spine Inst., Colorado Neurolog. Inst.*

11:00 KKK56 **198.08** ▲ Assessing gait speed, step count and activity classification in natural environments using cellular phones. Y. KWON*; T. AUNG; S. SYNOVEC; A. OBERLE; E. GOULDING; S. J. BONASERA; A. SCHENK. *Randolph Col., Rice Univ., Univ. of Nebraska Med. Ctr., Northwestern Univ.*

8:00 KKK57 **198.09** Evoked brain potentials reflects the analgesic effect of morphine in personalized medicine. C. GRAVERSEN*; A. E. OLESEN; A. M. DREWES. *Mech-Sense, Aalborg Univ. Hosp., Mech-Sense.*

9:00 KKK58 **198.10** Removal of the systemic interference for detecting learning-related functional near-infrared spectroscopic signals during visuomotor learning. I. NAMBU*; S. SAITO; T. IMAI; T. SATO; Y. WADA. *Nagaoka Univ. of Tech.*

10:00 KKK59 **198.11** Autoregressive moving-average modeling of frontal EEG under nitrous oxide reveals damping in the alpha frequency band. L. KUHLMANN*; B. L. FOSTER; D. T. J. LILEY. *The Univ. of Melbourne, Stanford Univ., Swinburne Univ. of Technol.*

11:00 KKK60 **198.12** ● Using a force plate actometer to measure selected mouse gait parameters: Data for 9-week and 26-week old C57BL/6 mice. S. C. FOWLER*; K. RATZLAFF; E. SCHNEIDER. *Univ. Kansas, Univ. Kansas, Univ. of Hannover Med. Sch.*

8:00 KKK61 **198.13** ▲ Testing the identifiability of DCM-model parameters. C. ARAND*; E. SCHELLER; S. KLOEPPEL; C. WEILER; J. TIMMER; B. SCHELTER. *Univ. Freiburg, Univ. Med. Ctr. Freiburg, Univ. Med. Ctr. Freiburg, Univ. Med. Ctr. Freiburg, Univ. Freiburg, King's College, Old Aberdeen, Univ. of Aberdeen.*

9:00 KKK62-DP10 **198.14** The non-static connectome - new comparative connectomics data in the nematode Caenorhabditis elegans. S. J. COOK*; C. A. BRITTIN; T. A. JARRELL; A. E. BLONIARZ; Y. WANG; K. NGUYEN; D. H. HALL; S. W. EMMONS. *Albert Einstein Col. of Med., Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

10:00 KKK63 **198.15** ● Novel large-scale synapse annotation in electron microscopic datasets of the *Drosophila* nervous system. P. K. RIVLIN*; S. PLAZA; T. PARAG; R. ANICETO; L. CHANG; S. LAUCHIE; A. NASCA; O. OGUNDEYI; C. SIGMUND; S. TAKEMURA; J. TRAN; L. UMAYAM; D. J. OLBRIS; C. WEAVER; L. K. SCHEFFER. *HHMI/Janelia Farm Res. Campus.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

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SPECIAL LECTURE *San Diego Convention Center*

199. Transgenerational Epigenetics: Programming Behavior in a Dynamic Landscape — CME

Sun. 1:00 PM - 2:10 PM — Ballroom 20

Speaker: T. L. BALE, Univ. Pennsylvania.

The epigenome has become a highly investigated and important area of neuroscience in connecting the environment with changes in neurodevelopment and behaviors. The complexity of mechanisms at play stem from points of vulnerability, including key developmental windows and the involvement of maternal or paternal germ cell lifetime exposures. This lecture will discuss the latest knowledge on epigenetic mechanisms and transgenerational outcomes associated with the reprogramming of the brain and behaviors, thus promoting disease risk or resiliency.

SYMPOSIUM *San Diego Convention Center*

200. 5-Hydroxymethylcytosine and Active DNA Demethylation in Experience-Dependent Neural Function and Psychiatric Disorders — CME

Sun. 1:30 PM - 4:00 PM — 6A

Chair: T. BREDY

The covalent modification of DNA influences transcription during early development and throughout life, thus playing an important role in mediating gene-environment interactions and behavior. Recent discoveries regarding the newly identified epigenetic modification, 5-hydroxymethylcytosine, and how it contributes to experience-dependent neural plasticity across the lifespan, and to the development of neuropsychiatric disorders including drug addiction and schizophrenia, will be discussed.

1:30 **200.01** Introduction.

1:35 **200.02** Hydroxymethylation is enriched within active genes and accessible chromatin in the nervous system. N. HEINTZ. *Rockefeller Univ, Howard Hughes Med. Inst.*

2:10 **200.03** Role of DNA methylation/hydroxymethylation in developmental programming. P. JIN. *Emory Univ. School of Med.*

2:45 **200.04** Characterizing the role of the “6th” base: how experience-dependent changes in DNA hydroxymethylation contribute to memory. T. W. BREDY. *Queensland Brain Inst.*

3:20 **200.05** DNA methylation and hydroxymethylation in psychiatric disease. D. GRAYSON. *Univ. of Illinois At Chicago.*

3:55 **200.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

201. Novel Advances in Understanding Mechanisms of Habituation — CME

Sun. 1:30 PM - 4:00 PM — 6B

Chair: C. RANKIN

Habituation, a gradual decrease in response following repeated stimulation, is the simplest form of learning and a foundation of selective attention. The behavioral characteristics of habituation are well understood, yet remarkably, the molecular mechanisms underlying the behavioral decrement are not. This symposium will discuss a range of approaches in four different model systems to develop new insights into the cellular mechanisms underlying behavioral habituation.

1:30 **201.01** Introduction.

1:35 **201.02** High throughput analyses of mechanosensory habituation in *C. elegans.* C. H. RANKIN. *Univ. British Columbia.*

2:10 **201.03** Genetic screens and molecular identification of genes regulating vertebrate habituation. M. GRANATO. *Univ. Pennsylvania.*

2:45 **201.04** Cellular mechanism underlying short-term habituation of acoustic startle responses in rodents. S. SCHMID. *Univ. Western Ontario.*

3:20 **201.05** How flies ignore the familiar: the negative image model for habituation. M. RAMASWAMI. *Trinity Col. Dublin.*

3:55 **201.06** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

202. Manipulating and Characterizing Neuronal Ensembles Mediating Cue-Specific Behaviors — CME

Sun. 1:30 PM - 4:00 PM — 6F

Chair: B. T. HOPE

Co-Chair: F. C. CRUZ

Neuronal ensembles encode complex, highly specific sets of stimuli that mediate learning and behavior. Decades of *in vivo* electrophysiological studies have shown correlations between ensemble firing and behavior. It is now possible to determine their causal role in behavior as well as their unique molecular and cellular dynamics. This minisymposium will describe newly developed tools and procedures for manipulating and characterizing neuronal ensembles selectively activated during behavior.

1:30 **202.01** Introduction.

1:35 **202.02** Hippocampal neuronal ensemble dynamics during encoding and retrieval of context memory assessed using immediate-early gene imaging. J. GUZOWSKI. *Univ. California, Irvine.*

1:55 **202.03** Genetic tracking and manipulation of active neural circuits. K. K. COWANSAGE. *The Scripps Res. Inst.*

2:15 **202.04** Controlling memory engrams with light. X. LIU. *HHMI, RIKEN-MIT.*

2:35 **202.05** Neuronal ensembles in drug addiction. B. T. HOPE. *NIH/NIDA.*

2:55 **202.06** Synaptic characterization of selectively activated neurons in cocaine sensitized mice. E. KOYA. *Univ. of Sussex.*

3:15 **202.07** Discrete dynamics in the auditory cortex and the perception of sounds. S. RUMPEL. *Res. Inst. of Mol. Pathology.*

3:35 **202.08** Closing Remarks.

• Indicated a real or perceived conflict of interest, see page 144 for details.

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MINISYMPOSIUM *San Diego Convention Center*

203. Structural Synaptic Plasticity: Emerging Breakthroughs and Relationship to Disease — CME

Sun. 1:30 PM - 4:00 PM — 6E
Chair: T. F. FRANKE

Co-Chair: E. J. NESTLER

Neuronal activity of emerging circuits during development maps neuronal connectivity. Endogenous and environmental cues continue to shape the neuronal network and circuitry in an experience-dependent manner throughout life. This session will present functional and structural imaging studies that examine precisely how neuronal connectivity is tuned at individual synapses in development and how learning, stress, and hormonal modulation control synaptic properties within complex neuronal circuitry.

1:30 **203.01** Introduction.

1:35 **203.02** Effect of memory erasure and memory reconsolidation on synaptic morphology in *Aplysia.* S. CHEN. *UCLA.*

1:55 **203.03** Spontaneous activity shapes synaptic connectivity with subcellular precision. C. LOHMANN. *Netherland Inst. for Neurosci.*

2:15 **203.04** Postnatal recurrent activity drives synaptogenesis in the striatum. Y. KOZOROVITSKIY. *Harvard Med. Sch.*

2:35 **203.05** Opposite effects of fear conditioning and extinction on dendritic spine remodeling. C. S. W. LAI. *New York University, Sch. of Medicine, Skirball Inst.*

2:55 **203.06** Epigenetic regulation of synaptic remodeling in stress disorders. S. A. GOLDEN. *Mount Sinai Sch. of Med.*

3:15 **203.07** Sex-specific plasticity in prefrontal circuits. R. M. SHANSKY. *Northeastern Univ.*

3:35 **203.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

204. Rethinking Estrogen Action in the Brain — CME

Sun. 1:30 PM - 4:00 PM — 28A
Chair: G. F. BALL

Co-Chair: J. BALTHAZART

It has recently become clear that estrogens act in the brain in ways that are not consistent with traditional preconceptions related to the action of sex steroid hormones. This manifests itself in two major ways: 1) estrogens act on membranes with a time course similar to some neurotransmitters and neuromodulaters and 2) estrogens have very broad actions on brain physiology and cognition. Rapid actions of estrogens on behavior, physiology and cognition will be reviewed in this minisymposium.

1:30 **204.01** Introduction.

1:35 **204.02** Rapid actions of steroids in reproductive neuroendocrinology. S. MOENTER. *Univ. of Michigan.*

1:55 **204.03** Glial aromatase: an alternate mechanism of estrogen delivery following brain injury. K. A. DUNCAN. *Vassar Col.*

2:15 **204.04** Estrogen uses actin signaling to rapidly influence transmission and plasticity. C. M. GALL. *Univ. of California.*

2:35 **204.05** Functional consequences of membrane and intra-cellular actions of estrogens. J. H. BALTHAZART. *Univ. of Liege.*

2:55 **204.06** Beyond reproduction: Changing brain estrogens rapidly alter sensorimotor representations and behaviors. L. REMAGE-HEALEY. *Univ. of Massachusetts, Amherst.*

3:15 **204.07** Rapid signaling by estrogens increases spines and facilitates memory processing. V. LUINE. *Hunter Col.*

3:35 **204.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

205. What Just Happened and Do I Care? The Interaction Between Rewards and Memory in Cortical and Subcortical Structures — CME

Sun. 1:30 PM - 4:00 PM — 29D
Chair: B. RICHMOND

Co-Chair: A. CLARK

Evaluating potential rewards and planning upcoming actions often requires comparing predicted outcomes with the value of prior rewards and experiences. This minisymposium will review recent attempts to integrate the study of reward and memory, including mnemonic signals in midbrain reward centers, reward-related activity in the medial temporal lobe memory system, and the importance of interactions between medial temporal and prefrontal, striatal, and thalamic networks in reward-guided behavior.

1:30 **205.01** Introduction.

1:35 **205.02** Multiple forms of reward memory in the habenula-dopamine pathway. E. BROMBERG-MARTIN. *Natl. Eye Inst.*

1:55 **205.03** Hippocampus integrates trial outcome during learning: evidence for prospective and retrospective reward signals in the monkey. S. WIRTH. *CNRS/Université Lyon 1.*

2:15 **205.04** Value, memory, and choice: how the hippocampus and striatum bias decisions. D. SHOHAMY. *Columbia Univ.*

2:35 **205.05** It all depends upon the context: the role of orbital prefrontal-rhinal interactions in estimating expected reward value. A. CLARK. *Natl. Inst. of Mental Hlth.*

2:55 **205.06** Giving credit where credit is due: the role of frontal-subcortical circuits in appropriate value assignment. M. WALTON. *Univ. of Oxford.*

3:15 **205.07** Use the force, but how? The nebulous role of the ventromedial prefrontal cortex in motivation and reward. S. BOURET. *Inst. du Cerveau et de la Moelle Epiniere.*

3:35 **205.08** Closing Remarks.

PETER AND PATRICIA GRUBER LECTURE *San Diego Convention Center*

206. Understanding Circuit Dynamics: Variability, Modulation and Homeostasis

Sun. 2:30 PM - 3:40 PM — Ballroom 20

Speaker: E. E. MARDER, *Brandeis Univ.*

Support contributed by The Gruber Foundation

Circuit function arises from the interplay between the intrinsic properties of neurons and their synaptic connections. This lecture will present combined experimental and computational work suggesting that robust circuit performance can arise from highly variable circuit components. Animal-to-animal variability in circuit parameters raises interesting challenges for reliable neuromodulation and responses to environmental perturbation but allows important substrates for evolution.

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

PRESIDENTIAL SPECIAL LECTURE *San Diego Convention Center*

207. A Molecular Geneticist's Approach to Understanding the Fly Brain — CME

Sun. 5:15 PM - 6:25 PM — Ballroom 20

Speaker: G. M. RUBIN, *Howard Hughes Med. Inst.*

Support contributed by Amgen, Inc.

To probe the workings of the nervous system, we will need to be able to assay and manipulate the function of individual neuronal cell types. The intellectual framework for such an approach has been apparent for many years, but the available tools have been inadequate for the job. This lecture addresses efforts to develop and apply an advanced set of tools that will be required for a comprehensive analysis of the anatomy and function of the fly brain at the level of individual cell types and circuits.

NANOSYMPOSIUM

208. Endosomes in Neuronal Trafficking and Neurodegenerative Diseases

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, 24A

1:00 **208.01** Live imaging of endosomes in dendrites reveals dynamic relationships between early and late endosomal rabs and neuronal early endosomal protein of 21kd (NEEP21). C. YAP*; L. DIGILIO; Z. LASIECKA; B. WINCKLER. *Univ. of Virginia Sch. of Med.*

1:15 **208.02** PI3P is selectively deficient in Alzheimer's disease and regulates endosomal sorting and processing of the amyloid precursor protein. G. DI PAOLO*; E. MOREL; Z. CHAMOUN; Z. LASIECKA; R. B. CHAN; R. WILLIAMSON; C. VETANOVETZ; C. DALL'ARMI; S. SIMOES; K. S. POINT DU JOUR; B. D. MCCABE; S. A. SMALL. *Columbia Univ., INSERM, Columbia Univ.*

1:30 **208.03** The endosomal compartment in Down syndrome with or without Alzheimer's disease. M. POTIER*; F. CORLIER; J. LAINÉ; I. RIVALS; A. LOISTRON; J. DELABAR; P. COSKUN; I. T. LOTT; C. DUYCKAERTS. *Brain and Spine Institute, CNRS INSERM UPMC, ESPCI Paris Tech., Univ. Paris Diderot, Univ. of California, Irvine, Ecole Supérieure de Physique et Chimie Industrielles de Paris.*

1:45 **208.04** Neuronal membrane cholesterol increase recapitulates Alzheimer's disease early phenotypes. C. MARQUER*; J. LAINÉ; L. DAUPHINOT; C. LEMERCIER-NEUILLET; N. PIERROT; K. BOSSERS; M. LE; F. CORLIER; C. BENSTAALI; F. SAUDOU; G. THINAKARAN; J. OCTAVE; C. DUYCKAERTS; M. POTIER. *CNRS, Univ. Pierre et Marie Curie, Univ. catholique de Louvain, Netherlands Inst. for Neurosci., Inst. Curie, The Univ. of Chicago.*

2:00 **208.05** EHD family proteins and Rab11 coordinate polarized endocytic sorting and axonal transport of BACE1 in hippocampal neurons. G. THINAKARAN*; C. G. FERNANDEZ; K. S. VETRIVEL; V. UDAYAR; L. RAJENDRAN; V. BUGGIA-PRÉVOT. *Univ. Chicago, Univ. of Zurich.*

2:15 **208.06** Role of exosomes in the release and the transcellular spread of amyloids in Alzheimer's disease. L. RAJENDRAN*. *Systems and Cell Biol. of Neurodegeneration, Div. of Psychiatry Research,.*

2:30 **208.07** Sorting of neurodegeneration causative metal transporters at endosomes. V. FAUNDEZ*; A. GOKHALE; P. RYDER; A. P. MULLIN; S. COMSTRA. *Emory Univ.*

2:45 **208.08** The functions of endosomal Na+/H+ exchangers in circuit development in patient-derived neural tissues. E. M. MORROW*; S. B. LIZARRAGA. *Brown Univ., Brown Univ.*

3:00 **208.09** Charcot-Marie-Tooth 2B mutations in rab7 reveal neuronal sensitivity to reduced endolysosomal degradation. P. HIESINGER*; C. CHAN; S. CHERRY; E. J. JIN; Z. LU; E. AGI; D. WANG; W. JUNG; I. A. MEINERTZHAGEN. *UT Southwestern, UT Southwestern, Natl. Taiwan Univ., Dalhousie Univ.*

3:15 **208.10** Autophagosome biogenesis is restricted to the distal axon but follows a conserved pathway of assembly. S. MADAY*; E. L. F. HOLZBAUR. *Univ. of Pennsylvania.*

3:30 **208.11** Regulation of late endosome transport and its impact on autophagy-lysosomal function. Q. CAI*; Z. SHENG. *Rutgers, The State Univ. of New Jersey, NINDS, NIH.*

NANOSYMPOSIUM

209. Alzheimer's Disease: Imaging and Biomarkers

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, 33C

1:00 **209.01** Identification of a unique signature for pre-symptomatic Alzheimer's disease in human peripheral blood monocytes. R. CIALIC*; R. MALKA; C. DOYKAN; P. WU; E. BRADSHAW; P. DE JAGER; R. SPERLING; K. JOHNSON; H. WEINER; O. BUTOVSKY. *Brigham and Women's Hosp., Harvard Med. Sch., Massachusetts Gen. Hosp.*

1:15 **209.02** Identifying putative blood protein biomarkers for early stage Alzheimer's disease using Selective Reaction Monitoring. Y. ZHOU*; S. QIN; L. GRAY; K. WANG; L. HOOD. *Inst. Systems Biol.*

1:30 **209.03** Decreased regional cerebral glucose uptake in transgenic mouse models of Alzheimer's disease. X. LANGLOIS*; C. WINTMOLDERS; A. BOTTELBERGS; A. WALDRON; L. WYFFELS; C. CZECH; L. OZMEN; A. HARPER; S. DIX; J. RICHARDSON; S. STAELENS; J. KELLEY. *Janssen Res. and Develop., Univ. of Antwerp, Hoffman-La-Roche, Lilly UK, GlaxoSmithKline.*

1:45 **209.04** ● A combination of physical exercise and computerized cognitive training improves verbal memory and increases cerebral glucose metabolism in the elderly. T. M. SHAH*; G. VERDILE*; H. SOHRABI; A. CAMPBELL; R. MARTINS. *Univ. of Western Australia, Edith Cowan Univ., Royal Perth Hosp.*

2:00 **209.05** The relationship of amyloid burden and memory retrieval across the Lifespan. G. N. BISCHOF*; K. M. RODRIGUE; K. M. KENNEDY; M. DEVOUS; D. PARK. *Univ. of Texas At Dallas, Ctr. For Vital Longevity, UT Southwestern Med. Ctr.*

2:15 **209.06** Basal forebrain atrophy is associated with Aβ burden in Alzheimer's disease. G. M. KERBLER*; J. FRIPP; V. VILLEMAGNE; C. ROWE; O. SALVADO; S. E. ROSE; E. J. COULSON. *The Univ. of Queensland, CSIRO ICT - Preventative-Health Natl. Res. Flagship, The Univ. of Melbourne, Austin Hlth., The Univ. of Melbourne, Austin Hlth.*

2:30 **209.07** ● Increased pyroglutamate Abeta42 correlates with increased PiB binding in the precuneous of subjects with MCI and early Alzheimer's disease. V. N. PIVTORAIKO*; E. E. ABRAHAMSON; W. R. PALJUG; M. L. DEBNATH; W. E. KLUNK; C. A. MATHIS; E. J. MUFSON; M. D. IKONOMOVIC. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Rush Univ. Med. Ctr.*

2:45 **209.08** Structural covariance of the default network in healthy and pathological aging. R. SPRENG*; G. R. TURNER. *Cornell Univ., York Univ.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 **209.09** Medial temporal lobe structures are tightly integrated in the default network. S. MUELLER; D. WANG; M. D. FOX; K. LI; R. L. BUCKNER; J. LU; H. LIU*. *Massachusetts Gen. Hosp., Ludwig Maximilians Univ. Munich, Harvard Med. Sch., Beth Israel Deaconess Med. Ctr. and Harvard Med. Sch., Xuanwu Hosp. of Capital Med. Univ., Harvard Univ., Massachusetts Gen. Hosp., Howard Hughes Med. Inst.*

3:15 **209.10** Structural and functional alterations in presymptomatic Alzheimer's disease revealed by multivariate pattern analysis. V. KEBETS*; M. VAN ASSCHE; R. GOLDSTEIN; M. VAN DER MEULEN; P. VUILLEUMIER; J. RICHIARDI; D. VAN DE VILLE; F. ASSAL. *Univ. of Geneva, Geneva Univ. Hosp., Univ. of Geneva, Ecole Polytechnique Fédérale de Lausanne, Univ. of Geneva, Stanford Univ.*

3:30 **209.11** ● Imaging neuroinflammation with the GE180 PET tracer in AD mice, non-human primates and human AD brain. B. LIU*; K. X. LE; M. PARK; S. WANG; A. P. BELANGER; S. DUBEY; P. HOLTON; V. REISER; P. JONES; W. TRIGG; M. F. DI CARLI; C. A. LEMERE. *Ctr. for Neurologic Diseases, Brigham & Women's Hosp. and Harvard Med. Sch., Dept. of Radiology, Brigham & Women's Hospital, Harvard Med. Sch., GE Healthcare.*

3:45 **209.12** Data-driven identification of novel candidate mechanisms involved in frontotemporal lobar degeneration. C. MCMILLAN*; B. AVANTS; J. Q. TROJANOWKSI; M. GROSSMAN. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

NANOSYMPOSIUM

210. Parkinson's Disease: Mechanisms of Degeneration and Repair

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, 2

1:00 **210.01** Can Neural stem cells "Nurr"ture the Parkinson's disease brain back to health? M. BLURTON-JONES*; N. R. S. GOLDBERG; J. CAESAR-BENNET; G. FINOGENOV; E. MASLIAH; J. NERHUS. *Univ. of California, Irvine, Univ. of California, Irvine, UCSD.*

1:15 **210.02** Exploring the mechanism of nicotine-mediated protection in Parkin heterozygous loss-of-function *Drosophila* melanogaster. L. M. BUHLMAN*; J. A. TECHAU; G. B. CALL. *Midwestern Univ., Midwestern Univ.*

1:30 **210.03** The complement anaphylatoxin C5a receptor (C5aR) mediates disease progression in experimental models of Parkinson's disease. R. GORDON*; S. MANTOVANI; P. G. NOAKES; A. G. KANTHASAMY; T. M. WOODRUFF. *The Univ. of Queensland, Iowa State Univ.*

1:45 **210.04** A high throughput screen for modulators of neuronal manganese status. K. K. KUMAR*; A. A. ABOUD; M. NEELY; A. TIDBALL; C. WEAVER; K. C. ESS; M. ASCHNER; A. BOWMAN. *Vanderbilt Univ., Vanderbilt Univ.*

2:00 **210.05** Indirect application of near infrared light induces neuroprotection in a mouse model of Parkinson's disease - An abscopal neuroprotective effect. D. JOHNSTONE*; J. MITROFANIS; J. STONE. *Univ. of Sydney.*

2:15 **210.06** Inhibition of haloperidol-induced striatal astrogliosis, parkinsonism and tardive vacuous chewing movements by coadministration of Nigella sativa-oil in rats. T. MALIK*; S. H. HASAN; D. J. HALEEM. *Bahria Univ. Med. and Dent. Col., The Univ. of Karachi, The Aga Khan Univ. Hosp., The Univ. of Karachi, The Univ. of Karachi.*

2:30 **210.07** A rat model of caudo-rostral spreading of α-synuclein triggered by protein overexpression. A. ULUSOY*; R. RUSCONI; B. I. PÉREZ-REVUELTA; R. E. MUSGROVE; M. HELWIG; B. WINZEN-REICHERT; D. A. DI MONTE. *German Ctr. For Neurodegenerative Dis. (DZNE).*

2:45 **210.08** Zebrafish transgenic lines and models for Parkinson's disease, dopamine neuron development and regeneration. R. S. GODOY*; S. NOBLE; Y. XI; M. EKKER. *Ctr. for Advanced Res. In Envrn. Genomics, Univ. of Ottawa.*

3:00 **210.09** Investigation of the role of neuroinflammation in α-synuclein-linked dopaminergic neurodegeneration in rat brain. A. VAN DER PERREN*; F. MACCHI; J. DOOLEY; A. LISTON; C. VAN DEN HAUTE; Z. DEBYSER; V. BAEKELANDT. *KU Leuven, KU Leuven, KU Leuven.*

3:15 **210.10** Role of Calcium channels in fungal volatile organic compound-mediated neurotoxicity. A. A. INAMDAR*; J. BENNETT. *Rutgers Univ.*

3:30 **210.11** Beclin1 is involved in the initiation of mitophagy: It facilitates Parkin translocation to mitochondria. A. KAASIK*; V. CHOUBEY; M. CAGALINEC; J. LIIV; D. SAFIULINA; M. A. HICKEY; M. KUUM; M. LIIV. *Univ. of Tartu.*

3:45 **210.12** Alpha-synuclein oligomers/protofibrils as immunotherapeutic targets in cell models of aggregation and propagation. M. INGELSSON*; G. GUSTAFSSON; T. L. FONSECA; D. LAZARO; E. NORDSTRÖM; E. IHSE; S. NATH; L. AGHOLME; C. MÖLLER; M. HALLBECK; T. OUTEIRO; L. LANNFELT; J. BERGSTRÖM. *Uppsala Univ., Univ. Med. Ctr. Goettingen, BioArctic Neurosci., Linköping Univ.*

4:00 **210.13** A newly discovered neurotoxin links hyperglycemia and Parkinson's disease. Y. DENG*; B. XIE. *Beijing Inst. of Technol.*

4:15 **210.14** Is age-related decline of glucose regulated protein 78 (GRP78) a predisposing factor for Parkinson disease? O. S. GORBATYUK*; M. SALGANIK; V. G. SERGEYEV; C. MAYERS; C. ZHONG; S. ZOLOTUKHIN; M. GORBATYUK; J. H. LIN. *Univ. Florida, Univ. Florida, Univ. Alabama at Birmingham, Univ. California at San Diego.*

NANOSYMPOSIUM

211. Brain Injury: Therapeutic Strategies I

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, 30B

1:00 **211.01** The fatty acid amide hydrolase inhibitor PF-3845 promotes neuronal survival, attenuates inflammation and improves functional recovery in mice with traumatic brain injury. F. TCHANTCHOU*; Y. ZHANG. *Uniformed Services Univ. of the Hlth. Sci.*

1:15 **211.02** Ceftriaxone treatment after traumatic brain injury preserves cortical inhibition and improves functional outcomes. M. Q. HAMEED*; T. H. HSIEH; J. L. MORALES-QUEZADA; G. S. GOODRICH; X. H. WANG; P. A. ROSENBERG; A. ROTENBERG. *Boston Children's Hosp., Harvard Med. Sch., Taipei Med. Univ., Boston Children's Hosp.*

1:30 **211.03** Treatment with anatabine significantly improves chronic outcome in a mouse model of repetitive mild TBI. S. FERGUSON*; B. MOUZON; L. ABDULLAH; G. CRYNEN; M. MULLAN; V. MATHURA; M. MULLAN; F. CRAWFORD. *Roskamp Inst.*

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1:45 **211.04** Cytoskeletal stabilization as a therapeutic strategy for traumatic brain injury. D. J. CROSS*; R. J. Y. HO; T. R. RICHARDS; V. YARNYKH; G. GARWIN; P. MOURAD; D. COOK; S. MINOSHIMA. *Univ. Washington Med. Sch., Univ. Washington Med. Sch., Univ. Washington Med. Sch., Univ. Washington Med. Sch.*

2:00 **211.05** Coma stimulation: New ways to do it and new ways to evaluate its effects. F. LEFEVER*; J. HASENKAM. *New York Neuropsychology Group, Bahrs Scrub Neurosci.*

2:15 **211.06** ● GLP-1 analogue, liraglutide reduces lesion size, and attenuates inflammation and cell death associated with acute traumatic brain injury in murine lesion model. B. DELLA VALLE*; C. HEMPEL; F. F. JOHANSEN; J. KURTZHALS. *Rigshospitalet, KMA 7602, BRIC, Copenhagen's Biocenter.*

2:30 **211.07** Neuroprotective effects of pharmacologically-induced-hypothermia against traumatic brain injury in neonatal rats. Z. WEI*; X. GU; A. ESPINERA; J. LEE; L. WEI; S. YU. *Neurosci. Res. Institute, Peking Univ., Emory Univ. Sch. of Med., Emory Univ. Sch. of Med.*

2:45 **211.08** Curcumin promotes hematoma resolution following intracerebral hemorrhage via a CD36-dependent mechanism. J. SHIELDS*; C. ALLEYNE, Jr.; K. DHANDAPANI. *Georgia Regents Univ.*

3:00 **211.09** Acute effect of human protein s after traumatic brain injury in mice. X. WANG; X. HAN; J. TONG; B. ZLOKOVIC; W. LIU; M. LIANG; E. WANG; J. H. HUANG*. *Univ. of Rochester Med. Ctr., Univ. of Rochester Med. Ctr., Univ. of Rochester Med. Ctr., Univ. of Rochester Med. Ctr.*

3:15 **211.10** Treatment of mild traumatic brain injury in mice with a Nrf2 activator affects dendritic complexity. B. A. CITRON*; J. N. CHANG; R. F. MERVIS; S. K. FOLEY; P. HANNA; L. RACHMANY; A. SHAER; V. RUBOVITCH; C. G. PICK. *Bay Pines VA Healthcare Syst., Univ. of South Florida Morsani Col. of Med., NeuroStructural Res. Labs., Univ. of South Florida Morsani Col. of Med., Sackler Sch. of Med.*

3:30 **211.11** Efficacy of 20-HETE synthesis inhibitor after intracerebral hemorrhage. X. ZHAO*; H. ZHU; Z. YANG; R. C. KOEHLER; J. WANG. *Johns Hopkins Univ. Sch. of Med.*

3:45 **211.12** Prostaglandin F2a FP receptor antagonist attenuates brain inflammation and improves outcomes after experimental traumatic brain injury. A. V. GLUSHAKOV*; S. W. ROBBINS; C. L. BRACY; S. NARUMIYA; S. DORÉ. *Univ. of Florida Col. of Med., Kyoto University, Fac. of Med., Univ. of Florida Col. of Med.*

4:00 **211.13** Potential role of aquaporin 4 and microglia on edema regulation following traumatic brain injury. M. H. DIGICAYLIOGLU*; S. SPRAGUE; L. FLETCHER; L. WATTS; D. F. JIMENEZ. *UTHSCSA, UTHSCSA, UTHSCSA.*

4:15 **211.14** ● Beneficial effects of multimodal treatments post injury in a rodent model of traumatic brain injury. D. BINGHAM*; T. I. LAM; A. ORR; S. WON; J. SHI; F. M. LONGO; R. A. SWANSON; J. LIU; S. M. MASSA. *SFVAMC & UCSF, SFVAMC and UCSF, Stanford Univ.*

NANOSYMPOSIUM

212. Alcohol and Adolescence

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, 32B

1:00 **212.01** Increased neuroimmune gene expression in the human alcoholic prefrontal cortex is linked to adolescent drinking behavior. R. P. VETRENO*; L. QIN; F. CREWS. *Univ. of North Carolina At Chapel Hill.*

1:15 **212.02** Adolescent alcohol exposure decreases δ-GABA$_A$ receptor mediated currents in the adult medial prefrontal cortex. S. CENTANNI*; H. TRANTHAM-DAVIDSON; L. J. CHANDLER. *Med. Univ. of South Carolina.*

1:30 **212.03** Potentiation of context fear rather than overshadowing after tone conditioning in adult animals following adolescent ethanol exposure. M. BROADWATER; E. I. VARLINSKAYA*; L. P. SPEAR. *Binghamton Univ.*

1:45 **212.04** Chronic intermittent ethanol exposure during adolescence results in long-term structural and functional changes in the adult hippocampus. M. RISHER*; D. MORIN; R. L. FLEMING; W. A. WILSON; S. K. ACHESON; S. SWARTZWELDER. *Durham Veterans Affairs Med. Ctr., Duke Univ. Med. Ctr., Duke Univ., Duke Univ.*

2:00 **212.05** Adolescent intermittent ethanol alters adult rat progenitor cell proliferation and differentiation in the hippocampus. W. LIU*; F. T. CREWS. *Univ. of North Carolina-Chapel Hill.*

2:15 **212.06** Trans-generational effect of prenatal ethanol exposure in rats: Preweanling alcohol consumption and adolescent sensitivity to ethanol's sedative hypnotic effect. D. O. POPOOLA*; M. E. NIZHNIKOV; N. S. SPEAR; N. M. CAMERON. *Binghamton Univ.*

2:30 **212.07** Proteomic and behavioral evidence for altered astroglial gap junction communication increasing risk for alcoholism after adolescent corticosterone exposure. V. NAGARAJAN; K. STONE; T. LAM; E. GULCICEK; J. TAYLOR; M. M. TORREGROSSA*. *Univ. of Pittsburgh, Yale Univ., Yale Univ.*

2:45 **212.08** Longterm consequences of binge ethanol and nicotine intake in peri-adolescent alcohol-preferring rats: Targeted gene expression, locomotor activity, and maze performance. E. A. ENGLEMAN; A. M. SENTIR; K. M. FRANKLIN; Z. A. RODD; W. A. TRUITT; R. CHAMBERS; R. L. BELL*. *Indiana Univ. Sch. of Med.*

NANOSYMPOSIUM

213. Amphetamine and Related Drugs: Neural Mechanisms of Addiction

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, 23A

1:00 **213.01** HPA and body temperature response may mediate divergence in aversive effects of methamphetamine between selected lines of mice. J. H. HARKNESS*; T. J. PHILLIPS. *Oregon Hlth. & Sci. Univ., Methamphetamine Abuse Res. Ctr., Veterans Affairs Med. Ctr.*

1:15 **213.02** Hdac2-induced regulation of gene expression in the mouse striatum: Effects of methamphetamine. J. L. CADET*; B. LADENHEIM; S. JAYANTHI; M. T. MCCOY; E. LEHRMANN; K. BECKER; C. BRANNOCK. *NIH/NIDA, NIH/NIA Intramural Resarch Program.*

1:30 **213.03** The effects of maternal separation and adult chronic variable stress on methamphetamine self-administration. C. LEWIS*; S. TOMEK; K. STAUDINGER; R. HERNANDEZ; D. HARVEY; M. F. OLIVE*. *Arizona State Univ.*

1:45 **213.04** Relationship betweem mesolimbic resting-state functional connectivity and prefrontal activation during decision-making in methamphetamine dependence. M. KOHNO*; A. M. MORALES; D. G. GHAHREMANI; E. D. LONDON. *UCLA, UCLA.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

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2:00 **213.05** Synthetic methcathinones: Correlation of potencies for inhibition of uptake and stimulation of neurotransmitter release via biogenic amine transporters. A. J. ESHLEMAN*; K. M. WOLFRUM; J. F. REED; Y. K. CHOU; A. JANOWSKY. *Psychiatry, Beh Neurosci, OHSU, Portland VAMC, Methamphetamine Abuse Res. Ctr.*

2:15 **213.06** Increased context dependent pavlovoan conditioning to amphetamine in TAAR1-KO mice. I. SUKHANOV; T. SOTNIKOVA; F. FUMAGALLI; L. CERVO; R. R. GAINETDINOV*. *Inst. Italiano Di Tecnologia, Univ. degli Studi di Milano, Inst. di Ricerche Farmacologiche 'Mario Negri'-IRCCS.*

2:30 **213.07** Attenuation of methamphetamine-induced neurotoxicity by selective sigma receptor ligands: Involvement of neuronal and glial mechanisms. R. R. MATSUMOTO*; M. J. ROBSON; C. MCCURDY; A. COOP; N. KAUSHAL. *West Virginia Univ., Univ. of Mississippi, Univ. of Maryland.*

2:45 **213.08** ● Repeated amphetamine induces long-lasting dysfunction of α2A-Adrenergic autoreceptors. A. BOBADILLA*; E. DOUCET; V. HOUADES; C. LANTERI; G. GODEHEU; L. LANFUMEY; S. J. SARA; J. TASSIN. *Physiopathologie Des Maladies Du Système Nerveux Central, UPMC, INSERM,CNRS, Ctr. de Recherche en Psychiatrie et Neurosci., Lab. de physiologie de la Perception et de l'Action.*

3:00 **213.09** Intermittent social defeat stress increases GABAergic AKT phosphorylation in the ventral tegmental area downstream of mu-opioid receptor upregulation. C. E. JOHNSTON*; D. HERSCHEL; A. W. LASEK; R. P. HAMMER, Jr.; E. M. NIKULINA. *Arizona State Univ. - Neurosci. Program, Univ. of Arizona, Univ. of Illinois at Chicago.*

3:15 **213.10** ● Methamphetamine-induced reward and sleep regulation in normal and ghrelin-receptor knockout mice. J. J. HADLOCK*; E. SZENTIRMAI; L. KAPÁS. *Sch. Medicine, Univ. of Washington, Seattle, WA, USA, Washington State Univ., Washington State Univ.*

3:30 **213.11** Separate neural representations of magnitude, delay and probability in a discounting task. W. F. HOFFMAN*; D. SCHWARTZ; B. TREMBLAY; L. DENNIS; V. WILSON; S. MITCHELL. *Portland VA Med. Ctr., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*

3:45 **213.12** Methamphetamine neurotoxicity-induced attenuation of resting state functional connectivity between the dorsolateral caudate putamen and cortical regions. J. A. STARK*; J. K. BRYNILDSEN; H. LU; B. LADENHEIM; J. L. CADET; T. J. ROSS; Y. YANG; E. A. STEIN. *NIH NIDA.*

NANOSYMPOSIUM

214. Auditory System: Circuits and Cortex

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, 1B

1:00 **214.01** Functional effects of activating somatostatin positive interneurons in auditory cortex. B. SEYBOLD*; A. R. HASENSTAUB; C. E. SCHREINER. *Univ. of California - San Francisco.*

1:15 **214.02** Inhibitory modulation of responses to auditory context in awake mice. E. A. K. PHILLIPS; C. SCHREINER; A. R. HASENSTAUB*. *Univ. of California San Francisco, UCSF.*

1:30 **214.03** Mosaic receptive fields of central auditory neurons optimized to the natural sound statistics. A. S. KOZLOV*; A. BRIGGS; T. Q. GENTNER; T. O. SHARPEE. *Salk Inst., UCSD.*

1:45 **214.04** Noise correlations and invariance to basic acoustic transformations of vocalizations in the auditory cortex. I. M. CARRUTHERS*; R. G. NATAN; A. C. JAEGLE; L. MWILAMBWE-TSHILOBO; D. A. LAPLAGNE; M. N. GEFFEN. *Univ. of Pennsylvania, Rockefeller Univ.*

2:00 **214.05** Distinct roles of anterolateral and posteromedial heschl's gyrus in coding human voice fundamental frequency. R. BEHROOZMAND; J. D. GREENLEE*, M.D.; C. LARSON; D. HANSEN; H. OYA; H. KAWASAKI; M. HOWARD; J. BRUGGE. *Univ. of Iowa, Univ. Iowa, Northwestern Univ., Univ. of Wisconsin.*

2:15 **214.06** Emergence of differential encoding for species-specific vocalizations along the ventral auditory cortical stream. M. FUKUSHIMA*; R. C. SAUNDERS; D. A. LEOPOLD; M. MISHKIN; B. B. AVERBECK. *NIH/NIMH.*

2:30 **214.07** Neural entrainment to musical rhythms in human auditory cortex, as revealed by intracerebral recordings. S. NOZARADAN*; J. JONAS; J. VIGNAL; L. MAILLARD; A. MOURAUX. *Inst. of Neuroscience, UCL, Intl. Lab. for Brain, Music and Sound Res. (Brams), Service de neurologie, CHU Nancy, Faculte de Medecine, Univ. de Lorraine, CRAN UMR 7039 CNRS Univ. de Lorraine.*

2:45 **214.08** Functional connectivity networks of speech hearing: An fMRI study. J. LEE*; H. KANG. *Korea Univ.*

NANOSYMPOSIUM

215. Spinal Cord Injury: Plasticity and Recovery

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, 5B

1:00 **215.01** Constraint induced movement therapy for children with brachial plexus injury: A randomized control study. T. KARAKOSTAS*; E. C. KING; S. M. HSIANG. *Rehabil. Inst. of Chicago, Lurie Children's Hosp. of Chicago, Lurie Children's Hosp. of Chicago, Texas Tech. Univ.*

1:15 **215.02** Optogenetic mapping of the motor cortex revealed longitudinal changes in the corticospinal tract in two models of spinal cord injury in mice. X. PING; W. XIONG; X. WANG; J. GAO; X. XU; X. JIN*. *IUPUI, IUPUI.*

1:30 **215.03** Learning-dependent changes in spine-brain interaction revealed by functional magnetic resonance imaging. S. VAHDAT*; O. LUNGU; J. DOYON. *Univ. of Montreal.*

1:45 **215.04** Manipulating scar and promoting axon growth after spinal cord injury using polypeptide hydrogels for depot delivery of bioactive molecules. M. ANDERSON*; S. ZHANG; Y. AO; T. J. DEMING; M. V. SOFRONIEW. *UCLA, UCLA, UCLA, UCLA.*

2:00 **215.05** Dissociable effects of local cortical inhibition and excitation on modular organization of the human brain. L. COCCHI*; M. V. SALE; A. LORD; A. ZALESKY; M. BREAKSPEAR; J. B. MATTINGLEY. *Queensland Brain Institute/ The Univ. of Queensland, Queensland Brain Inst., Queensland Inst. of Med. Res., Melbourne Neuropsychiatry Ctr., Queensland Brain Inst.*

2:15 **215.06** Interleukin-6 secretion by reactive astrocytes after spinal cord contusion injury is dynamically regulated by the PI3K-mTOR-calcium signaling. S. CODELUPPI*; T. FERNANDEZ ZAFRA; J. KJELL; K. SANDOR; Q. LIU; M. ABRAMS; L. OLSON; N. S. GRAY; C. I. SVENSSON; P. UHLÉN. *MBB, Karolinska Institutet, Karolinska Institutet, Karolinska Institutet, Karolinska Institutet, Dana-Farber Cancer Inst., Harvard Med. Sch., Karolinska Institutet.*

2:30 **215.07** Morphine binding to KORs and non-classic ORs undermines recovery following SCI. M. ACEVES*; M. A. HOOK. *Texas A&M Univ.*

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2:45 **215.08** Engaging the cervical spinal cord circuitry to re-enable volitional control of hand function in tetraplegic patients. D. LU*; V. EDGERTON; N. AU YONG; M. MODABER; E. MORIKAWA; E. ANAYA; S. ZDUNOWSKI; R. ROY; Y. GERASIMENKO. *UCLA, UCLA, UCLA.*

NANOSYMPOSIUM

216. Neurophysiology of Human Perception

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, 4

1:00 **216.01** Multi-voxel decoding of stimulus properties within 300 ms by using time-resolved fMRI. A. J. NEVADO HOLGADO*; S. CLARE; K. MILLER; N. VOETS; E. DUFF; M. KELLY; J. BIJSTERBOSCH; C. SUMMERFIELD. *Univ. of Oxford, Univ. of Oxford, Univ. of Oxford.*

1:15 **216.02** Developmental phonagnosia implicates a neural correlate for perceiving speaker identity. I. BIEDERMAN*; X. XU; M. H. BERGSMA; B. E. SHILOWICH; O. AMIR; N. E. ALLEN. *USC, USC, USC.*

1:30 **216.03** Multivariate pattern analysis of the face processing network in congenital prosopagnosia. M. BEHRMANN*; G. AVIDAN; A. NESTOR. *Carnegie Mellon Univ., Ben Gurion Univ. of the Negev.*

1:45 **216.04** Stimulus invariant brain responses to switches in bistable perception. S. GETOV*; F. MEGUMI; B. BAHRAMI; G. REES. *Univ. Col. London, Aarhus Univ.*

2:00 **216.05** Neural correlates of the integration of object features in visual working memory. P. H. KHADER*; A. C. SEEMÜLLER; E. M. MÜLLER; F. RÖSLER. *Ludwig Maximilians Univ. Munich, Philipps-University, Justus-Liebig-University, Univ. of Potsdam.*

2:15 **216.06** What is a clear picture?: Human sensitivity to noise in naturalistic images. J. S. PATEL*; B. R. SHETH. *Univ. of Houston, Univ. of Houston, The Ctr. for Neuro-Engineering and Cognitive Science, Univ. of Houston.*

2:30 **216.07** Are synaesthetes better statistical learners? Noninvasive brain stimulation interacts with synaesthesia in training of novel numerical symbols. J. M. THOMPSON*; H. RAFFERTY; R. COHEN KADOSH. *Univ. of Oxford.*

2:45 **216.08** Decoding illusory out-of-body experiences. A. GUTERSTAM*; M. BJÖRNSDOTTER; G. GENTILE; H. EHRSSON. *Karolinska Institutet.*

3:00 **216.09** ▲ Neural coding of individual faces in the human right inferior occipital cortex: Direct evidence from intracerebral recordings and stimulations. J. JONAS*; L. MAILLARD; S. COLNAT-COULBOIS; J. VIGNAL; C. JACQUES; B. ROSSION. *Service de Neurologie, Hop. Central, CHU de Nancy, Ctr. Hospitalier Universitaire de Nancy, Ctr. Hospitalier Universitaire de Nancy, Univ. Catholique de Louvain.*

3:15 **216.10** Visual and auditory tool-specific responses in human parietal cortex. T. KASSUBA*; M. A. PINSK; S. KASTNER. *Princeton Univ.*

3:30 **216.11** Neuronal correlates of binocular rivalry in the medial temporal and frontal lobes. H. GELBARD-SAGIV*; L. MUDRIK; C. KOCH; I. FRIED. *Caltech, UCLA, Allen Inst. for Brain Sci., Sackler Sch. of Medicine, Tel Aviv Univ.*

3:45 **216.12** Decoding imagined visual motion in different directions using conventional 3 Tesla and high spatial resolution 7 Tesla functional magnetic resonance imaging (fMRI). T. C. EMMERLING*; B. SORGER; J. ZIMMERMANN; R. GOEBEL. *Maastricht Univ., Maastricht Brain Imaging Ctr. (M-BIC), Netherlands Inst. for Neurosci. (NIN).*

4:00 **216.13** Brain activity dynamics in parietal regions during spontaneous switch in bistable perception. F. MEGUMI*; B. BAHRAMI; R. KANAI; G. REES. *Inst. of Cognitive Neuroscience, Univ. Col. London, Sackler Ctr. for Consciousness Science, Sch. of Psychology, Univ. of Sussex, Wellcome Trust Ctr. for Neuroimaging, Univ. Col. London.*

NANOSYMPOSIUM

217. Cognition and Behavior: Cognitive Development

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, 25A

1:00 **217.01** ▲ Three dimensional surface changes in caudate shape are age dependent biomarkers of ADHD. M. WOLLNER*; B. GUTMAN; P. THOMPSON; M. S. COHEN; P. DOUGLAS. *UCLA.*

1:15 **217.02** Adolescent neurocognitive development of processing emotional distractors. N. VETTER*; M. PILHATSCH; T. HÜBNER; M. SMOLKA. *Technische Univ. Dresden.*

1:30 **217.03** The neural substrates associated with improvement on standardized exams during middle school. A. S. FINN*; J. SALVATORE; J. LEONARD; A. P. MACKEY; C. A. GOETZ; M. A. SHERDIAN; C. GABRIELI; J. GABRIELI. *MIT, Children's Hosp. Boston, Natl. Ctr. for Time and Learning.*

1:45 **217.04** Quantitative biological measurements of white matter development. J. YEATMAN*; A. MEZER; J. NGUYEN; B. WANDELL. *Stanford Univ.*

2:00 **217.05** Neural coding variation mediates precision of number discrimination. R. W. PRATHER*. *Indiana Univ.*

2:15 **217.06** The role of myelin in the development of large scale cortical networks in babies and toddlers. J. O'MUIRCHEARTAIGH*; D. C. DEAN, III; L. WALKER; H. DIRKS; N. WASCIEWICZ; I. PIRYATINSKY; S. C. L. DEONI. *Brown Univ., King's Col. London.*

2:30 **217.07** Maturation of fact retrieval in the developing brain is associated with differential changes of neural pattern representations in medial temporal lobe and neocortex. S. QIN*; S. PRATHAP; T. CHEN; V. MENON. *Stanford Univ.*

2:45 **217.08** Foetal brain development is influenced by maternal exercise during pregnancy. E. LABONTE-LEMOYNE*; D. CURNIER; D. ELLEMBERG. *Univ. of Montreal.*

3:00 **217.09** Bdnf val66met modulates the association between childhood trauma, cognitive and brain abnormalities in psychoses. M. AAS*; U. K. HAUKVIK; S. DJUROVIC; Ø. BERGMANN; L. ATHANASIU; T. HELLVIN; M. S. TESLI; N. STEEN; I. AGARTZ; K. SUNDET; O. A. ANDREASSEN; I. MELLE. *K.G. Jebsen, Psychosis Res. Unit/TOP, Univ. of Oslo, K.G. Jebsen, Psychosis Res. Unit, Div. of Mental Hlth. and Addiction, Oslo Univ. Hosp., Dept. of Psychiatric Research, Diakonhjemmet Hosp., Dept. of Med. Genetics, Oslo Univ. Hosp., Univ. of Oslo, K.G. Jebsen, Psychosis Res. Unit/Top, Dept. of Psychology, Univ. of Oslo.*

3:15 **217.10** Puberty specific cortical maturation in adolescents. M. M. HERTING*; P. GAUTAM; E. C. KAN; R. E. DAHL; E. R. SOWELL. *Children's Hosp. Los Angeles, USC, Univ. of California, Berkeley.*

3:30 **217.11** Diffusion properties of the cerebellar peduncles are associated with reading skills in pre-term and full-term children. K. E. TRAVIS*; Y. LEITNER; M. BEN-SHACHAR; H. M. FELDMAN. *Stanford Univ., Tel Aviv Sourasky Med. Ctr. and Sackler Sch. of Med., Bar-Ilan Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:45 **217.12** The development of human amygdala functional connectivity at rest. L. GABARD-DURNAM*; J. FLANNERY; B. GOFF; D. GEE; K. HUMPHREYS; E. TELZER; T. HARE; N. TOTTENHAM. *UCLA, Univ. of Illinois, Univ. of Zurich.*

NANOSYMPOSIUM

218. Nanotools for Neuroscience

Theme G: Novel Methods and Technology Development

Sun. 1:00 PM – *San Diego Convention Center*, 7B

1:00 **218.01** ● High density optoelectronic nanowire array selective stimulation of the neural retina: Comparison with other neural stimulation technologies. G. A. SILVA*. *UCSD.*

1:15 **218.02** ● Rationally designed nano-bio interfaces for neural recording. M. R. ANGLE*; A. Y. WANG; E. HUBER; K. G. CHANG; T. BOZORG-GRAYELI; J. N. HOHMAN; V. K. NARASIMHAN; M. KOLLO; A. T. SCHAEFER; N. A. MELOSH. *Stanford Univ., Max-Planck-Institute for Med. Res., Stanford Univ., MRC Natl. Inst. for Med. Res., Univ. of Heidelberg, Univ. Col. London.*

1:30 **218.03** Three-dimensional macroporous nanowire nanoelectronic network for brain implant. C. XIE*; J. LIU; X. DAI; W. ZHOU; C. M. LIEBER. *Harvard Univ.*

1:45 **218.04** High-throughput nanotube-based electrophysiology in a microfluidic chip. J. T. ROBINSON*; D. VERCOSA; A. M. BELL. *Rice Univ., Rice Univ.*

2:00 **218.05** Sub-micron scale topography directs growth and migration of neurons from the hippocampus and cerebral cortex. A. M. RAJNICEK*; P. N. STONEY; D. SHEWAN; M. COLLINSON. *Univ. Aberdeen.*

2:15 **218.06** Multisite, noninvasive, intracellular recordings and stimulation by an array of extracellular microelectrodes. M. E. SPIRA*. *The Hebrew Univ. of Jerus.*

2:30 **218.07** Developing neurons-nanoparticles interfaces to promote neuronal growth. N. ALON*; I. NISSAN; Y. MIROSHNIKOV; N. PERKAS; A. GEDANKEN; O. SHEFI. *Bar Ilan Univ., Bar Ilan Univ., Bar Ilan Univ.*

2:45 **218.08** Nanoscale electrodes for sensitive recording of action potentials. B. CUI*; Z. LIN; C. XIE; Y. CUI. *Stanford Univ., Harvard Univ.*

3:00 **218.09** ● Order magnitude improvements in neural interfaces. T. BLANCHE*; M. CHAMANZAR; N. GAUDREAULT; M. BORISOV; M. MAHARBIZ. *Univ. of California, The Allen Inst. for Brain Sci., White Matter LLC.*

3:15 **218.10** A low-cost, open-source, wireless electrophysiology system. J. VIVENTI*; A. GHOMASHCHI; Z. ZHENG. *Polytechnic Inst. of New York Univ., New York Univ., NYU WIRELESS.*

3:30 **218.11** ● Origins of ultrasound neural stimulation in the retina. M. D. MENZ*; A. NIKOOZADEH; P. T. KHURI-YAKUB; S. A. BACCUS. *Stanford Univ., Stanford Univ.*

POSTER

219. Patterning of Spinal Cord, Brain Stem, and Cerebellum

Theme A: Development

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 A1 **219.01** Epigenetic control of Hox paralogue group 5 induction in tangentially migrating precerebellar neurons. D. KRAUS; T. DI MEGLIO; C. F. KRATOCHWIL; S. DUCRET; F. M. RIJLI*. *Friedrich Miescher Inst. for Biomed Res., Friedrich Miescher Inst.*

2:00 A2 **219.02** Glutamate signaling during neural tube formation. P. A. CASTRO*; E. B. SEQUERRA; L. TIAN; L. N. BORODINSKY. *Univ. of California Davis Sch. of Med., Univ. of California Davis Sch. of Med.*

3:00 A3 **219.03** ▲ Anatomical impact of reelin haploinsufficiency and prenatal organophosphate pesticide exposure in mouse cerebellum. B. ROSS; B. MULLEN; E. M. CARPENTER*. *UCLA Sch. Med.*

4:00 A4 **219.04** Ciliary length control and Hedgehog signaling in mouse development. J. SONG; H. MOON; S. LEE; H. LEE; H. KO*. *Dongguk Univ.*

1:00 A5 **219.05** Formation process of the cerebellar compartments that are determined by birthdate of Purkinje cells. M. HASHIMOTO*; K. YAMADA; T. MIYATA. *Nagoya Univ. Med. Cell Biol.*

2:00 A6 **219.06** Role of galanin in neuronal cell migration after brain injury. H. KOMURO*; J. FAHRION. *Lerner Res. Inst. Cleveland Clin.*

3:00 A7 **219.07** Chondroitin sulfotransferase expression pattern in migrating motor neurons of the rat embryonic hindbrain. M. WONG*; M. LI; Y. S. CHAN; D. K. Y. SHUM. *The Univ. of Hong Kong, The Univ. of Hong Kong.*

4:00 A8 **219.08** Neurodevelopmental toxicity caused by prenatal exposure to bisphenol A and di-isononyle phthalate. K. E. RAKKESTAD*; G. H. MATHISEN; M. DELEBECQUE; R. E. PAULSEN. *Univ. of Oslo, Sch. of Pharm.*

1:00 A9 **219.09** Activation of Hedgehog signaling pathway in the developing neural retina stimulates proliferation and disrupts optic fissure closure. K. SAKAGAMI*; X. YANG. *UCLA, Jules Stein Eye Inst.*

2:00 A10 **219.10** The Gene Expression Database (GXD) for mouse development. J. H. FINGER*; T. F. HAYAMIZU; I. J. MCCRIGHT; C. M. SMITH; J. XU; J. T. EPPIG; J. A. KADIN; J. E. RICHARDSON; M. RINGWALD. *The Jackson Lab.*

3:00 A11 **219.11** Bone Morphogenetic Proteins (BMPs) regulate neural tube closure by cell cycle dependent mechanisms: A 4D time-lapse analysis. C. Y. BROWN; D. EOM; S. AGARWALA*. *Univ. Texas at Austin, Univ. of Washington, Univ. Texas at Austin.*

POSTER

220. Patterning of Forebrain

Theme A: Development

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 A12 **220.01** Mice with reduced Met signaling in cortex show altered cortical lamination. J. M. SMITH*; E. M. POWELL. *Univ. of Maryland, Baltimore.*

2:00 A13 **220.02** A forward genetic screen in mice identifies mutants with abnormal cortical patterning. S. HA*; R. W. STOTTMANN; D. R. BEIER. *Seattle Children's Res. Inst., Brigham and Women's Hosp., Cincinnati Children's Hosp. Med. Ctr.*

3:00 A14 **220.03** Disruption of BMP-FGF mutual inhibition leads to developmental delay and abnormal border formation in the developing telencephalon. E. S. FUNG; L. T. DOAN; J. S. HU; D. T. TRUONG; H. H. JUN; R. M. PHAM; K. POURHOSSEINI; E. S. MONUKI*. *UC Irvine, UC Irvine Sch. of Med.*

4:00 A15 **220.04** Sharp borders of gene expression in germinal layers identify a protomap of cerebral cortex folding. C. D. ROMERO*; C. BRUDER; V. BORRELL. *Neurosci. Inst. Alicante, Karolinska Institutet,.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

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1:00 A16 **220.05** Distinct critical periods for medio-lateral fate specification in the cortical primordium. A. S. SHETTY*; G. GODBOLE; E. MONUKI; S. TOLE. *TIFR, Univ. of California.*

2:00 A17 **220.06** Immunohistochemical characterization of a cortical neuronal type expressing a combination of markers in the adult rat brain suggesting cell immaturity. A. FERNANDES*; N. GARCIA-CAIRASCO. *Univ. of São Paulo.*

3:00 A18 **220.07** Longitudinal change in cortical thickness: Freesurfer cross sectional and longitudinal processing streams. S. L. WILLIS*; P. RAST; D. MCLAREN; K. W. SCHAIE; T. J. GRABOWSKI. *Seattle Longitudinal Study. Univ. of Washington, Univ. of Victoria, Massachusetts Gen. Hosp., Univ. of Washington.*

4:00 A19 **220.08** Inner fiber layer-like structures revealed with *in utero* electroporation in ferrets. H. KAWASAKI*; T. TODA; L. IWAI; K. TANNO. *Sch. of Med, Kanazawa Univ., The Univ. of Tokyo, Grad. Sch. of Med.*

1:00 A20 **220.09** Bilateral Enucleation at birth alters intraneocortical connections in early postnatal development. O. O. KOZANIAN*; K. J. HUFFMAN. *UC Riverside, UC Riverside.*

2:00 A21 **220.10** The development of the corpus callosum is dependent on FGF8 signaling. K. M. CORELLA*; W. C. J. CHUNG. *Kent State Univ., Kent State Univ.*

3:00 A22 **220.11** Identification of proteins that interact with neocortical arealization factors in the developing neocortex. T. T. KROLL*; J. A. GROVES; M. J. MULLAN; J. BERG; C. MILLER; A. M. MILLER; N. MEYERS. *Central Washington Univ., Johns Hopkins Univ. Sch. of Med.*

4:00 A23 **220.12** ▲ Neuronal patterning in the cerebral cortex of forebrain-specific Ctgf Knockout Mice. K. CHEN*. *Natl. Taiwan Univ.*

1:00 A24 **220.13** Transcriptome analysis of postnatal development of rhesus macaque hippocampus and identification of conserved molecular signatures of adult dentate gyrus neurogenesis. J. A. MILLER*; A. BERNARD; J. NATHANSON; D. FRANJIC; S. SHIM; R. A. DALLEY; S. SHAPOURI; K. A. SMITH; S. M. SUNKIN; J. L. BENNETT; C. LEE; M. J. HAWRYLYCZ; A. R. JONES; D. G. AMARAL; N. ŠESTAN; F. H. GAGE; E. S. LEIN. *Allen Inst. For Brain Sci., The Salk Inst. for Biol. Studies, Yale Univ. Sch. of Med., UC Davis.*

2:00 A25 **220.14** Foxg1 modulates midline axon crossing in the zebrafish telencephalon. F. CHIARA*; C. HOUART. *King's Col. London.*

3:00 A26 **220.15** Characterizing the role of LIM homeobox 2 in area patterning. C. WANG; S. CHOU*. *Academia Sinica.*

4:00 B1 **220.16** Sensory cortex regulates top-down plasticity in thalamocortical circuits. A. B. ZEMBRZYCKI*; S. CHOU; R. ASHERY-PADAN; A. STOYKOVA; D. D. M. O'LEARY. *Salk Inst. For Biol. Studies, Tel Aviv Univ., Max Planck Inst. for Biophysical Chem.*

1:00 B2 **220.17** miRNA135a levels determines cortical hem and hippocampus size by modulating embryonic Wnt/BMP signaling. G. CARONIA-BROWN*; A. ANDEREGG; R. AWATRAMANI. *Northwestern Univ., Northwestern Univ.*

2:00 B3 **220.18** Mapping the gene regulative networks of cortical development. U. BORELLO*; M. MADHAVAN; K. CAMPBELL; C. DEHAY. *INSERM U846 / Stem Cell and Brain Res. Inst., Cincinnati Children's Hosp. Med. Ctr.*

3:00 B4 **220.19** Fate-labeling of Islet1 population shows pervasive progeny in mouse forebrain. F. SIDDIQI*; A. L. TRAKIMAS; T. T. CLARKE; E. D. MARSH; J. H. WOLFE. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Univ. of Pennsylvania.*

4:00 B5 **220.20** Emx1 influences area patterning in a background dependent fashion. A. M. STOCKER*; S. SAHARA; A. S. DONAHOO; L. J. RICHARDS; D. D. M. O'LEARY. *Salk Inst., The Univ. of Queensland.*

1:00 B6 **220.21** FGF2-induced gyrification of the mouse cerebral cortex suggests that the emergence of gyri and sulci is molecularly encoded in the primordial cortical wall. S. TOMASI*; B. G. RASH; H. D. LIM; C. SUH; F. M. VACCARINO. *Yale Univ., Yale Univ., Yale Univ.*

2:00 B7 **220.22** A metric for non-uniform expansion of cortical sheet during neural development. D. D. FERRANTE*; Y. WEI; A. KOULAKOV. *Cold Spring Harbor Labs.*

3:00 B8-DP1 **220.23** Mapping cortical connectivity during early postnatal development. L. A. COCAS*; S. J. PLEASURE. *Univ. of California, San Francisco.*

POSTER

221. Limbic System Development

Theme A: Development

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 B9 **221.01** Molecular mechanisms regulating neuronal migration during the development of the dopaminergic system. G. O. BODEA*; J. SPILLE; P. ABE; A. SENTURK ANDERSSON; A. ACKER-PALMER; R. STUMM; U. KUBITSCHECK; S. BLAESS. *Inst. of Reconstructive Neurobiology,Life & Brain Center, Univ. of Bonn, Inst. of Physical and Theoretical Chemistry, Univ. of Bonn, Inst. of Pharmacol. and Toxicology, Univ. Hosp. Jena, Friedrich Schiller Univ. Jena, Inst. of Cell Biol. and Neurosci. and Buchmann Inst. for Mol. Life Sci. (BMLS), Goethe Univ. Frankfurt; Focus Program Translational Neurosciences (FTN), Univ. of Mainz, Germany.*

2:00 B10 **221.02** Sleep-dependent neural activity in the medial septum as hippocampal theta emerges in newborn rats. D. MUKHERJEE*; M. S. BLUMBERG. *The Univ. of Iowa.*

3:00 B11 **221.03** Developmental and maternal regulation of infant brain state. E. C. SARRO; R. M. SULLIVAN; D. A. WILSON*. *NYU Sch. of Med., Nathan Kline Inst. for Psychiatric Res.*

4:00 B12 **221.04** Adolescent rat amygdala contains an actively dividing cell population that is positive for doublecortin but not NeuN. M. L. SAUL*; D. L. HELMREICH; J. L. FUDGE. *Univ. of Rochester, Univ. of Rochester.*

1:00 B13 **221.05** Fluoxetine exerts age-dependent effects on myelination. Y. KROEZE*; D. G. A. PEETERS; H. ZHOU; J. R. HOMBERG. *Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen.*

2:00 B14 **221.06** Fewer accumbens neurons projecting to the ventral tegmental area in adolescent versus adult rats is not a simple reflection of fewer accumbens neurons in adolescents. K. P. PARSLEY*; R. A. REICHARD; D. S. ZAHM; L. YETNIKOFF. *St. Louis Univ. Sch. of Med.*

3:00 B15 **221.07** Combined exposure to tobacco smoke and ethanol during adolescence leads to short- and long-term modulation of anxiety-like behavior. M. CORREA SANTOS*; A. MANHAES; C. FILGUEIRAS; C. CAVINA; V. NAIFF; A. CARVALHO; Y. VILLACA. *Univ. Do Estado Do Rio De Janeiro, Univ. do Estado do Rio de Janeiro, Univ. do Estado do Rio de Janeiro.*

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4:00 B16 **221.08** Postsynaptic effects of Cajal-Retzius cells onto interneurons and pyramidal cells of the hippocampal formation. G. QUATTROCOLO*; G. MACCAFERRI. *Northwestern Univ.*

1:00 B17 **221.09** Suboptimal maternal diet alters D1R binding in the offspring brain. P. K. THANOS*; J. ZHUO; M. ANANTH; R. KIM; N. GRISSOM; B. GEORGE; N. VOLKOW; T. M. REYES. *NIAAA / NIH and Brookhaven Natl. Lab., Stony Brook Univ., Univ. of Pennsylvania, U of Penn, NIH.*

2:00 B18 **221.10** The role of structural parietal characteristics in visuospatial development in pre- and primary-school children: Contributions of retrosplenial cortex. S. K. KROGSRUD*; C. TAMNES; H. GRYDELAND; J. CHEPKOECH; A. FJELL; L. MORK; K. WALHOVD. *Res. Group For Lifespan Changes In Brain and Cognition, Res. Group for Lifespan Changes in Brain and Cognition.*

3:00 B19 **221.11** Placental tryptophan metabolic dysfunction: a potential pathway for the developmental programming of mental disorders. N. GOEDEN*; A. BONNIN. *USC, USC.*

POSTER

222. Acetylcholine

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 B20 **222.01** Dynamic regulation of nicotinic synaptic transmission by postsynaptic Group I mGluRs. V. RUPPRECHT*; Y. SUN; M. BEIERLEIN. *UTHealth/ Univ. of Texas Med. Sch.*

2:00 B21 **222.02** Cholinergic modulation of neocortical pyramidal neurons. T. HEDRICK*; J. WATERS. *Northwestern Univ, Fienburg Sch. of Med., Feinberg Sch. of Medicine, Northwestern Univ.*

3:00 B22 **222.03** Effect of chlorpyrifos exposure on the development of cholinergic neurons. E. A. FRADINGER*; G. X. GARCIA; J. M. TILGMAN; O. MAC; A. JIMENEZ; D. BOURGAIZE; F. WATSON. *Whittier Col., Washington and Lee Univ.*

4:00 B23 **222.04** ▲ Reactivation of zebrafish acetylcholinesterase by novel oxime compounds following inhibition by organophosphate pesticides. H. R. SCHMIDT*; Z. RADIć; P. TAYLOR; E. A. FRADINGER. *Whittier Col., UCSD.*

1:00 B24 **222.05** ▲ USDA-approved organophospate pesticides, cause developmental abnormalities in two aquatic vertebrate models. J. GREGG; J. M. TILGHMAN; H. SCHMIDT; F. L. WATSON*; E. A. FRADINGER. *Whittier Col., Washington and Lee Univ., Whittier Col., Washington & Lee Univ.*

2:00 B25 **222.06** Inducing hippocampal network plasticity by coincident septal inputs. Z. GU*; J. YAKEL. *NIEHS/NIH.*

3:00 B26 **222.07** Striatal cholinergic interneurons cause disynaptic axoaxonic inhibition of output neurons via dopamine neuron terminals. A. B. NELSON*; N. HAMMACK; R. SEAL; A. KREITZER. *Gladstone Inst. of Neurolog. Dis., Gladstone Inst., Pittsburgh Univ.*

4:00 B27 **222.08** Morphological evidence for direct glycinergic input to cholinergic neurons in the mouse basal forebrain. Z. BARDÓCZI; M. WATANABE; L. ZÁBORSZKY; Z. LIPOSITS; I. KALLO*. *Inst. Exptl. Med. - HAS, Hokkaido Univ. Sch. of Med., Rutgers Univ., Pázmány Péter Catholic Univ.*

1:00 B28 **222.09** Optogenetic analysis of basal forebrain cholinergic neurons: Comparison of wild-type and type III neuregulin 1 mutant mice. G. Y. LOPEZ*; D. A. TALMAGE; L. W. ROLE. *Stony Brook Univ.*

2:00 B29 **222.10** Cholinergic system in brain is extremely adaptable. A. HRABOVSKA*; E. KREJCI. *Fac. of Pharmacy, Comenius Univ., CESeM, CNRS UMR 8194, Univ. Paris Descartes.*

POSTER

223. Cytokines and Invertebrate Neurotransmitters: Expression, Regulation, and Function

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 B30 **223.01** Molecular physiology of the behavioral switch to ecdysis in *Drosophila* melanogaster. D. KIM; M. HAN; Y. KIM; M. E. ADAMS*. *Univ. of California, Gwangju Inst. of Sci. and Technol.*

2:00 B31 **223.02** Cell-specific modulation by octopamine and proctolin in *Drosophila* melanogaster. K. G. ORMEROD*; L. DEADY; A. J. MERCIER. *Brock Univ., Western New England Univ.*

3:00 B32 **223.03** ▲ The influence of GABA on the feeding behavior of the cockroach Rhyparobia maderae. E. M. DUBON*; R. W. COHEN. *California State University, Northridge.*

4:00 B33 **223.04** Protein kinase C enhances voltage-gated Ca^{2+} influx and secretory efficacy to facilitate peptide release in neuroendocrine cells. C. J. GROTEN*; N. S. MAGOSKI. *Queen's Univ., Queen's Univ.*

1:00 B34 **223.05** Comparison of serotonin 1a and 2 receptor subtype mRNA expression across tissue, ganglia, and single neurons in the opisthobranch mollusc Tritonia diomedea. A. TAMVACAKIS*; P. KATZ. *Georgia State Univ.*

2:00 C1 **223.06** Electrophysiological properties of ASE neurons of *C. elegans.* T. SHINDOU*; M. OCHI-SHINDOU; T. MURAYAMA; T. SASSA; J. R. WICKENS; I. MARUYAMA. *Okinawa Inst. Sci. Technol., Okinawa Inst. Sci. Technol.*

3:00 C2 **223.07** Molecular mechanisms of peptide modulation of C.elegans motor circuit. D. TOUROUTINE*; R. BHATTACHARYA; M. FRANCIS. *Univ. of Massachusetts Med. Sch., Univeresity of Massachusetts Med. Sch.*

4:00 C3 **223.08** Gene expression of a serotonin receptor following aggressive behavior in the crayfish, Procambarus clarkii. A. J. TIERNEY*; K. K. INGRAM; E. SHOLL; M. RICHARDS; K. ANDREWS; M. WHITE. *Colgate Univ., Colgate Univ.*

1:00 C4 **223.09** ▲ The effects of mushroom body lesions on the feeding behavior of the cockroach Rhyparobia maderae. F. R. LIBBY*; R. W. COHEN. *California State University, Northridge.*

2:00 C5 **223.10** Post-embryonic development of serotonergic neurons in a Tenebrionid beetle: Time-course and hormonal dependence. R. C. ELSON*; J. FREGOSO; R. SMITH; J. SOCH. *Point Loma Nazarene Univ.*

3:00 C6 **223.11** Mass spectral characterization of circadian rhythm-related neuropeptide secretion during light-dark cycle in crustacean via *in vivo* microdialysis. Z. LIANG*; C. SCHMERBERG; L. LI. *Univ. of Wisconsin-Madison.*

4:00 C7 **223.12** Overexpression of TDP-43 inhibits NF-κB activity by blocking p65 nuclear translocation. J. ZHU*; W. JIA. *Brain Res. Ctr.*

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1:00 C8 **223.13** Toll-like receptor 4 contributes to opioid ligand binding in brain homogenates. J. THOMAS*; A. A. SOMOGYI; K. C. RICE; M. R. HUTCHINSON. *Univ. of Adelaide, Natl. Inst. on Drug Abuse.*

2:00 C9 **223.14** ● Characterization of Galanin receptor 1 knock-out mice in animal models of seizures. S. A. GAGANGRAS*; C. METCALF; E. DAHLE; B. KLEIN; H. WHITE. *Univ. of Utah, NeuroAdjuvants, Inc.*

3:00 C10 **223.15** Galanin localization and actions in the guinea pig cardiac plexus. J. C. HARDWICK*; A. A. LINTON; E. N. POWERS. *Ithaca Col., Ithaca Col., Ithaca Col.*

4:00 C11 **223.16** Wnt5a regulates expression of ROCK2 and SYNGAP1 through Mir-101b in rat hippocampal neurons. J. CODOCEDO*; N. C. INESTROSA. *Pontificia Univ. Catolica De Chile.*

1:00 C12 **223.17** D-amino acid-containing peptides in the nervous systems of vertebrate and invertebrate models. ; H. TAI; S. RUBAKHIN; J. V. SWEEDLER. *Univ. of Illinois At Urbana-Champaign, Univ. of Illinois in Urbana-Champaign.*

2:00 C13 **223.18** Endogenous substance p regulates microglial density in substantia nigra through neurokinin-1 receptor-nadph oxidase axis-mediated chemotaxis. Q. WANG*; C. CHU; S. CHEN; B. WILSON; J. HONG. *Neuropharm. Section, NIEHS, NIEHS.*

3:00 C14 **223.19** HMGB1 nucleocytoplasmic mobilization and release from neurons through decreased HDAC activity. J. Y. ZOU*; F. T. CREWS. *Univ. North Carolina, Chapel Hill.*

4:00 C15 **223.20** Cytokines regulate photoreceptor differentiation and survival *in vitro.* A. SHOLL-FRANCO*; A. S. AGOSTINI. *Univ. Fed Rio De Janeiro.*

1:00 C16 **223.21** IL-13 dynamically alters the excitability of dopamine neurons in the ventral tegmental area in wild type but not IL-13Rα1 knockout mice. M. A. HERMAN; M. ROBERTO*; B. CONTI. *Scripps Res. Inst., Scripps Res. Inst.*

2:00 C17 **223.22** ● Il-1β and Il-1RA release in the brain as measured by *in vivo* microdialysis and its dependence on P2X7 receptor activation. D. SONG; H. ZHOU; A. T. HOPPER; G. N. SMAGIN*. *Lundbeck, Lundbeck.*

3:00 C18 **223.23** Interferon-β alters neurotrophin-3 TrkC receptor expression and signaling in differentiated human SH-SY5Y neuroblastoma cells. S. DEDONI; M. C. OLIANAS; P. ONALI*. *Univ. of Cagliari.*

POSTER

224. Nicotinic Receptors: Structure, Function, and Modulation I

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 C19 **224.01** Tonic activation of α7 nicotinic acetylcholine receptors (nAChRs) controls glutamatergic inputs to striatal and parietal cortical neurons in guinea pig brain slices. E. X. ALBUQUERQUE*; E. F. R. PEREIRA; M. ALKONDON. *Univ. Maryland Sch. Med.*

2:00 C20 **224.02** Presence of non-α7 nAChRs in CA1 pyramidal neurons in rat hippocampal slices. M. ALKONDON*; E. F. R. PEREIRA; E. X. ALBUQUERQUE. *Univ. Maryland Sch. Med.*

3:00 C21 **224.03** Probing α7 nicotinic acetylcholine receptor-mediated signaling pathways in cultured hippocampal neurons. Q. CHENG*; J. L. YAKEL. *NIEHS.*

4:00 C22 **224.04** ● Shedding some light on nAChRs: Discovery of fluorescent α7 agonists and antagonists. J. BURGI; J. S. SPROUSE*; S. BERTRAND; E. NEVEU; T. SCHAER; J. REYMOND; D. BERTRAND. *Univ. of Berne, Sprouse Consulting LLC, HiQScreen.*

1:00 C23 **224.05** T cell receptor activation decreases excitability of neocortical interneurons by inhibiting α7 nicotinic receptors. P. KOMAL*; G. GUDAVICIUS; C. NELSON; R. NASHMI. *Univ. of Victoria, Univ. of Victoria.*

2:00 C24 **224.06** ● A minimal pharmacophore for a nicotinic alpha7 silent agonist, relevance for the therapeutic development of treatments for asthma. C. STOKES*; E. ISRAËL-ASSAYAG; R. L. PAPKE. *Univ. Florida, Asmacure Ltée.*

3:00 C25 **224.07** Mutations of alpha7 nAChR W55 enhance the allosteric agonism of GAT107, the active isomer of 4BP-TQS, and decouple interactions between orthosteric and allosteric sites. R. L. PAPKE*; N. A. HORENSTEIN; C. STOKES; C. MAENG; A. R. KULKARNI; G. A. THAKUR. *Univ. Florida, Univ. of Florida, Univ. of Florida, SK Biopharmaceuticals, Northeastern Univ., Northeastern Univ.*

4:00 C26 **224.08** Silent agonists of alpha7 nicotinic acetylcholine receptors require positive allosteric modulators for channel activation. K. CHOJNACKA*; R. L. PAPKE; N. A. HORENSTEIN. *Univ. of Florida, Univ. of Florida.*

1:00 C27 **224.09** Effects of positive allosteric modulators (PAMs) of nicotinic receptors on intracellular Ca^{2+} concentration $[Ca^{2+}]i$ in mouse embryonic mesencephalic neurons in primary culture. C. COSI*; F. MARTY; P. MAILLOS; P. C. MOSER. *Inst. De Recherche Pierre Fabre, Inst. De Recherche Pierre Fabre.*

2:00 C28 **224.10** Does the β2 C loop of the neuronal nicotinic acetylcholine receptor dictate the type of allosteric modulation? M. M. LEVANDOSKI*; C. A. SHORT; C. A. SIBBALD; T. KLJAIC. *Grinnell Col.*

3:00 C29 **224.11** Transmembrane structural models of human neuronal nicotinic acetylcholine receptors in unbound, agonist and antagonist bound complexes optimized by extensive molecular dynamics simulations. D. XU*; P. W. TAYLOR; H. J. D. MILLER; A. TAO; T. T. TALLEY. *Idaho State Univ. Col. of Pharm., Univ. of California at San Diego, Meridian Med. Arts Charter High Sch., Univ. High Sch., Idaho State Univ. Col. of Pharm.*

4:00 C30 **224.12** Nicotinic acetylcholine receptor (nAChR) modulators based on the scaffold 3,7-diazabicyclo[3.3.1] nonane. I. TOMASSOLI; C. EIBL; J. WU; K. HO; E. VALDAMBRINI; M. R. PICCIOTTO; R. L. PAPKE; P. TAYLOR; T. T. TALLEY; D. GUNDISCH*. *Col. of Pharm. UHH, Skaggs Sch. of Pharm. and Pharmaceut. Sciences, Univ. of California, Yale Sch. of Med., Col. of Med., Idaho State University, Col. of Pharm.*

1:00 C31 **224.13** Structure-activity relationships of selected natural products and template designed ligands for acetylcholine binding proteins (achbp), nicotinic acetylcholine receptors (nachrs) and related ligand-gated ion channels. T. T. TALLEY; J. WU; J. G. YAMAUCHI; A. NEMECZ; K. GOMEZ; A. SERRANO; K. HO; P. TAYLOR*. *Idaho State Univ. Col. of Pharm., Skaggs Sch. of Pharm. & Pharmaceut. Sciences, Univ. of California, San Diego, UC San Diego.*

2:00 C32 **224.14** ▲ Development of heteromeric human nicotinic receptor/AChBP chimeras. D. HENDRICKSON; M. WILSON; P. TAYLOR; T. T. TALLEY*. *Idaho State Univ. Col. of Pharm., Skaggs Sch. of Pharm. & Pharmaceut. Sciences, Univ. of California, San Diego.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 C33 **224.15** Differential modulation of brain nAChR function by cytisine and bispidine compounds and emergent properties of a hybrid molecule. C. PENG*; I. TOMASSOLI; C. EIBL; D. GUENDISCH; R. L. PAPKE. *Col. of Medicine, Univ. of Florida, Col. of Pharmacy, Univ. of Hawaii.*

4:00 C34 **224.16** Positive allosteric modulation of $(\alpha4)3(\beta2)_2$ nicotinic acetylcholine receptors by NS9283 *in vitro* and *in vivo.* M. GRUNNET*; J. BASTLUND; M. SARTER; A. JENSEN; M. GRUPE. *Lundbeck A/S, 3Department of Psychology and Neurosci. Program, Univ. of Michigan, Ann Arbor, MI, USA, Dept. of drug design and pharmacology.*

1:00 D1 **224.17** ● ▲ A walk in the chemical space to discover new molecules active at nAChRs. J. BÜRGI; S. BERTRAND*; E. NEVEU; T. SCHAER; J. REYMOND; D. BERTRAND. *Bern Univ., Hiqscreen, HiQScreen.*

2:00 D2 **224.18** Desensitization of presynaptic alpha4beta2- and alpha4alpha5beta2-nAChR. S. R. GRADY*; C. R. WAGEMAN; M. J. MARKS. *Univ. Colorado.*

3:00 D3 **224.19** Structural determinants in AChBP and nicotinic ligands conferring high affinity binding, nAChR subtype selectivity, and antagonist or full or partial agonist profiles. Y. BOURNE*; S. B. HANSEN; R. E. HIBBS; G. SULZENBACHER; Z. RADIC; R. ARAOZ; T. T. TALLEY; T. HUXFORD; E. BENOIT; J. SHI; M. REYNAUD; W. R. KEM; A. ZAKARIAN; D. SERVENT; J. MOLGO; P. TAYLOR; P. MARCHOT. *AFMB (CNRS/AMU), UCSD/SSPPS, INAF (CNRS), SIMOPRO, iBiTecS, CEA, UF, UCSB.*

4:00 D4 **224.20** ● Pharmacological properties of novel 2,5-disubsituted-pyridinyl compounds as highly selective nicotinic acetylcholine receptor desensitizers. Y. XIAO*; Y. LIU; E. TUAN; N. SAHIBZADA; N. AL-MUHTASIB; T. TRAN; T. XIE; M. PAIGE; M. L. BROWN; A. H. REZVANI; E. D. LEVIN; K. J. KELLAR. *Georgetown Univ., Georgetown Univ., Duke Univ. Med. Ctr.*

1:00 D5 **224.21** Destabilization of a desensitized state contributes to potentiation of low-sensitivity α4β2 nicotinic receptors by desformylflustrabromine. A. DEMMERLY; B. W. EDMONDS*. *Univ. of Alaska Fairbanks.*

2:00 D6 **224.22** Assessing alternate stoichiometries of the α4β2 neuronal nicotinic acetylcholine receptor. K. DEDOMINICIS*; N. SAHIBZADA; T. TRAN; Y. XIAO; B. WOLFE; K. KELLAR; R. YASUDA. *Dept. of Pharmacology/ Georgetown Univ.*

3:00 D7 **224.23** Contribution of the two binding sites in gating nicotinic receptor channels. M. HECKMANN*; P. STOCK; D. LJASCHENKO; J. DUDEL. *Univ. Wuerzburg - Physiologisches Inst., Tech. Univ. Munich.*

4:00 D8 **224.24** ● Functional properties of classic and novel nicotinic ligands: A patch clamp study using DynaFlow rapid solution exchange system. E. TUAN*; Y. LIU; T. XIE; N. AL-MUHTASIB; T. TRAN; M. PAIGE; M. BROWN; N. SAHIBZADA; K. J. KELLAR; Y. XIAO. *Georgetown Univ., Georgetown Univ.*

1:00 D9 **224.25** Positional-scanning analysis of α-conotoxin residues that confer selectivity for α3β2 nicotinic acetylcholine receptors. A. J. HONE*; S. EBERHARD; M. RUIZ; M. SCADDEN; J. GAJEWIAK; A. ALBILLOS; J. MCINTOSH. *Univ. Utah, Univ. Autonoma de Madrid, Univ. Utah, George E. Whalen Veterans Affairs Med. Ctr.*

2:00 D10 **224.26** AT-1001: Pharmacological profile at rat and human α3β4 and α4β2 nicotinic receptors. C. BOWMAN DALLEY*; A. LEWIN; E. TUAN; N. AL-MUHTASIB; T. TRAN; Y. GAO; A. G. HORTI; K. J. KELLAR. *Georgetown Univ., Johns Hopkins Univ.*

3:00 D11 **224.27** Differential agonist desensitization of HS vs. LS nicotinic receptors. P. WHITEAKER*; J. B. EATON; L. M. LUCERO; H. STRATTON; Y. CHANG; J. F. COOPER; J. M. LINDSTROM; R. J. LUKAS. *St. Joseph's Hosp, Univ. of Pennsylvania.*

4:00 D12 **224.28** ● Novel nicotinic agonist TI-299423 potently elicits conditioned-place preference in wild-type mice. T. WALL*; B. N. COHEN; C. R. WAGEMAN; S. R. GRADY; M. J. MARKS; B. H. HENDERSON; S. MCKINNEY; P. DESHPANDE; D. YOHANNES; H. A. LESTER. *Caltech, UC, Targacept, Inc.*

POSTER

225. Catecholamine Receptors

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 D13 **225.01** Looking for the molecular interface of dopamine D1-D3 receptor heteromers. X. GUITART*; G. NAVARRO; N. CAI; E. MORENO; M. SANCHEZ; J. MALLOL; E. CANELA; C. LLUIS; A. CORTES; V. CASADO; P. J. MCCORMICK; S. FERRE. *NIDA, IRP, Dept. Biochem. and Mol. Biology. Univ. of Barcelona, NIDA-IRP, Dept. Biochem. and Mol. Biology.University of Barcelona, Dept. Biochemistry and Mol. Biology. Univ. of Barcelona.*

2:00 D14 **225.02** Varying agonist efficacies of novel dopamine D3-selective ligands studied in the GTP-shift radioligand binding assay. J. ZHEN; M. E. A. REITH; A. K. DUTTA*, Dr. *New York Univ. Sch. Med., New York Univ. Sch. Med., Wayne State Univ.*

3:00 D15 **225.03** Evidence for limited D1 and D2 receptor co-expression and co-localization within striatal patch neurons of the neonatal mouse. D. BIEZONSKI*; P. TRIFILIEFF; J. JAVITCH; C. KELLENDONK. *Columbia Univ.*

4:00 D16 **225.04** Discovery and characterization of a completely G-protein biased D_2 dopamine receptor agonist. R. B. FREE; L. CHUN; J. CONROY; A. MORITZ; B. MILLER; T. DOYLE; A. PADRON; Y. HAN; N. SOUTHALL; J. XIAO; J. MARUGAN; M. FERRER; J. JAVITCH; D. R. SIBLEY*. *NINDS-NIH, Columbia Univ., NIH.*

1:00 D17 **225.05** Functional recruitment of g protein beta5 to d2 dopamine receptors. J. OCTEAU*; J. CELVER; M. SHARMA; J. SCHRADER; C. COLVIN; C. AIUDI; K. SUN; C. CHEN; A. KOVOOR. *Univ. of Rhode Island, Univ. of Rhode Island, Virginia Commonwealth Univ. Sch. of Med.*

2:00 D18 **225.06** D2 receptor overexpression in accumbal indirect pathway medium spiny neurons leads to hyperexcitability and alterations in behavioral sensitization to cocaine. E. F. GALLO*; B. FENG; J. A. MORON CONCEPCION; J. A. JAVITCH; C. KELLENDONK. *Columbia Univ., Columbia Univ.*

3:00 D19 **225.07** Presynaptic dopamine D1 receptor regulation of the striatonigral GABA transmission. S. DING; F. ZHOU*. *Univ. Tennessee.*

4:00 D20 **225.08** Haloperidol-induced Nur77 expression depends on Thr34 DARPP-32 phosphorylation in striatopallidal medium spiny neurons of mice. N. SANCHEZ*; R. COURA; O. ENGMANN; L. MARION-POLL; S. LONGUEVILLE; D. HERVÉ; J. GIRAULT; M. E. ANDRES. *Pontificia Univ. Catolica De Chile, Inserm, UMR-S 839.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 D21 **225.09** Cellular mechanisms for dopaminergic modulation of axon initial segment calcium channels. S. YANG*; R. M. VAN RIJN; J. L. WHISTLER; K. J. BENDER. *Univ. of California at San Francisco, Univ. of California at San Francisco.*

2:00 D22 **225.10** Impaired dopamine signaling in dorsal striatum of Wfs1 deficient mice. A. TERASMAA*; T. VISNAPUU; C. A. HUNDAHL; E. VASAR. *Univ. of Tartu.*

3:00 D23 **225.11** Modulation of canonical dopamine signaling system in hippocampus via formation of ghrelin and dopamine 1 receptor heteromers. A. KERN*; C. ULLRICH; R. ALBARRAN-ZECKLER; R. G. SMITH. *The Scripps Res. Inst.*

4:00 D24 **225.12** Activation of G(s/olf) heterotrimers in living cells: Development of novel G(s/olf) biosensors. H. YANO*; D. PROVASI; M. FILIZOLA; S. FERRE; J. JAVITCH. *Natl. Inst. On Drug Abuse, Natl. Inst. of Hlth., Mount Sinai Sch. of Med., Columbia University, New York Psychiatry Inst.*

1:00 D25 **225.13** ▲ Differential role of α2-adrenoceptor subtypes in the inhibition of the vasopressor sympathetic outflow in diabetic pithed rats. A. H. ALTAMIRANO-ESPINOZA*; G. MANRIQUE-MALDONADO; I. I. RUIZ-SALINAS; B. VILLANUEVA-CASTILLO; C. M. VILLALÓN. *Dept. De Farmacobiología Cinvestav Sede Sur.*

2:00 D26 **225.14** Lasting activity of alpha1-AR during postnatal development alters membrane properties of LC in SHR. S. IGATA; T. HAYASHI; M. ITOH; M. TAKANO; M. ISHIMATSU*. *Kyushu Univ., Kurume Univ. Sch. Med., Kurume Univ. Sch. Med., Nishikyushu Univ.*

3:00 D27 **225.15** Heterologous signaling via Src regulates sequence-dependent recycling of signaling receptors via modification of cortactin. R. VISTEIN*; M. PUTHENVEEDU. *Carnegie Mellon Univ.*

POSTER

226. Ion Channels: Na+ Channels

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 D28 **226.01** A novel $Na_v1.8$ mutation in small fiber neuropathy: Impaired inactivation underlying DRG neuron hyperexcitability. C. HAN*; D. VASYLYEV; L. J. MACALA; M. M. GERRITS; J. G. J. HOEIJMAKERS; K. J. BEKELAAR; S. D. DIB-HAJJ; C. G. FABER; I. S. J. MERKIES; S. G. WAXMAN. *Yale Univ. Sch. of Med., Veterans Affairs Med. Ctr., Univ. Med. Ctr. Maastricht, Univ. Med. Ctr. Maastricht, Spaarne Hosp.*

2:00 D29 **226.02** The role of 'neonatal' form of $Na_v1.2$ in neuronal function and brain development. E. GAZINA*; B. LEAW; K. RICHARDS; C. REID; S. PETROU. *The Florey Inst.*

3:00 D30 **226.03** Functional characterization of a novel Nav1.6 mutation in a patient with infantile epilepsy. M. R. ESTACION*; J. E. O'BRIEN; D. TALWAR; S. D. DIB-HAJJ; M. F. HAMMER; M. H. MEISLER; S. G. WAXMAN. *Yale Univ. Sch. of Med., VA Connecticut Healthcare Syst., Univ. of Michigan, Univ. of Arizona.*

4:00 D31 **226.04** Inactivation properties of Na^+ channels in the axonal spike trigger zone of cortical pyramidal neurons. I. A. FLEIDERVISH*; G. BARANAUSKAS. *Ben Gurion Univ.*

1:00 D32 **226.05** Exploring the obscure profiles of pharmacological binding sites on voltage-gated sodium channels by bmk neurotoxins. Z. LIU; Y. JI*. *Shanghai Univ., Dept. of Pharmacology, Inst. of Med. Science, Shanghai Jiao Tong Univ. Sch. of Med.*

2:00 D33 **226.06** ● Effect of selective Nav1.7 blockers on action potential generation of cultured mouse DRGs, human DRGs and hESC-derived sensory neurons. E. B. STEVENS*; A. R. BROWN; L. CAO; P. SAINTOT; G. T. YOUNG; M. L. CHAPMAN; A. NITZSCHE; J. G. BILSLAND; R. P. BUTT; C. E. PAYNE. *Pfizer Neusentis, Pfizer Neusentis.*

3:00 D34 **226.07** Analysis of inward excitatory currents during an action potential from suprachiasmatic nucleus neurons. J. R. CLAY*. *NIH.*

4:00 D35 **226.08** ● Inhibition of excitatory synaptic transmission in mouse spinal cord by a $Na_v1.7$ selective sodium channel antagonist. M. K. PATEL*; M. CHAPMAN; E. B. STEVENS; D. GRYDER. *Univ. Virginia Hlth. Sys, Neusentis, Pfizer Neusentis.*

1:00 D36 **226.09** Sodium channel β4 auxiliary subunit (Scn4b) controls spike-timing-dependent plasticity in core nucleus accumbens medium spiny neurons. X. JI; G. E. MARTIN*. *UMass Med. Sch., UMass Med. Sch.*

2:00 D37 **226.10** ● Nav1.7 inhibitory peptide from tarantula venom. B. D. MOYER*; D. LIU; J. LIGUTTI; A. ZOU; J. K. MURRAY; L. P. MIRANDA; S. I. MCDONOUGH. *Amgen, Amgen, Amgen.*

3:00 D38 **226.11** Co-expression of β-subunits with α-subunits modify the conotoxin-susceptibilities of voltage-gated sodium channels. M. ZHANG; L. AZAM; J. GAJEWIAK; J. IMPERIAL; G. BULAJ; B. M. OLIVERA; D. YOSHIKAMI*. *Univ. Utah, Univ. Utah.*

4:00 D39 **226.12** Use dependent spike shape changes in peripheral cutaneous unmyelinated fibers do not rely on Nav1.8 or Nav1.9. T. HOFFMANN; K. KISTNER; S. K. SAUER; P. REEH; C. WEIDNER*. *Univ. of Erlangen.*

1:00 D40 **226.13** Small-fiber neuropathy Nav1.8 mutation shifts activation to hyperpolarized potentials and increases excitability of DRG neurons. J. HUANG*; Y. YANG; P. ZHAO; M. GERRITS; J. HOEIJMAKERS; K. BEKELAAR; I. MERKIES; C. FABER; S. DIB-HAJJ; S. WAXMAN. *Yale Univ. Sch. of Med., Rehabil. Res. Center, Veterans Affairs Connecticut Healthcare Syst., Univ. Med. Ctr. Maastricht, Univ. Med. Ctr. Maastricht, Spaarne Hosp.*

2:00 D41 **226.14** ● Lacosamide modulation of the voltage-gated sodium channel $Na_v1.1$. D. H. FELDMAN; S. S. SHAHANGIAN; S. HIROSE; M. A. ROGAWSKI; C. LOSSIN*. *UC Davis - Sch. of Med., Fukuoka Univ. – Sch. of Med.*

3:00 D42 **226.15** Tctx2 and Tctx3 : Tityus caripitensis toxins with effect over Nav1.4 channels. Y. D. HERNANDEZ ESTEVEZ*; C. CASTILLO. *Fundacion Inst. De Estudios Avanzados, Univ. Simon Bolivar.*

4:00 E1 **226.16** Functional regulation of the Nav1.2 channel by glycogen synthase kinase 3. T. F. JAMES*; J. LUISI; M. N. NENOV; N. PANOVA; F. LAEZZA. *Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

1:00 E2 **226.17** ● Regulation of the Nav1.6 channel by glycogen synthase kinase 3 (GSK3). M. N. NENOV*; N. I. PANOVA; F. LAEZZA. *The Univ. of Texas Med. Br.*

2:00 E3 **226.18** Lacosamide inhibition of Nav1.7 voltage-gated sodium channels: Binding to fast-inactivated versus slow-inactivated states. S. JO*; B. BEAN. *Harvard Med. Sch.*

3:00 E4 **226.19** Conserved functional impact of alternative splicing in domain 1 of neuronal sodium channels. A. LIAVAS; S. SCHORGE*. *UCL Inst. of Neurol.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 E5 **226.20** Inhibitory excitability effect by terpinen-4-ol is related to both blocked sodium and potassium voltage-gated channels in small dissociated dorsal root ganglia neurons. T. SANTOS-NASCIMENTO*; K. MORAIS VERAS; L. MOREIRA-JUNIOR; J. LEAL-CARDOSO. *State Univ. of Ceara.*

1:00 E6 **226.21** A-type fibroblast growth factor homologous factors function as open channel blockers to modulate voltage-gated sodium channel availability. Y. LIU*; M. GOLDFARB. *Hunter College, City Univ. of New York.*

2:00 E7 **226.22** Gating properties of somatic voltage-gated sodium currents in layer 4 primary cells and interneurons of the somatosensory cortex. Y. MA*; M. GUTNICK; D. PRINCE; J. HUGUENARD. *Stanford Univ., The Hebrew Univ. of Jerusalem.*

3:00 E8 **226.23** Acid-sensing ion channels in NS20Y cells - potential role in neuronal differentiation. Z. O'BRYANT; T. LENG; K. INOUE; Z. ZENG; Z. XIONG*. *Morehouse Sch. of Med.*

4:00 E9 **226.24** Bace 1 regulates the voltage gated sodium channel Nav 1.7. X. REZAI; V. CURTO-REYES; I. DECOSTERD*. *CHUV and Lausanne Univ.*

POSTER

227. Monoamine Transporters: Function and Modulation

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 E10 **227.01** Resolving the transport kinetics of the corticosterone-sensitive organic cation transporter 3 (OCT3/Slc22a3) in the male rat brain. J. S. TALBOOM*; J. MOLINARO; C. A. LOWRY; K. J. RENNER; M. ORCHINIK1. *Arizona State Univ., Arizona Alzheimer's Consortium, Univ. of Colorado Boulder, Univ. of South Dakota.*

2:00 E11 **227.02** The vesicular monoamine transporter 2 (VMAT2) as a mediator of vesicular function, neurotoxicity and behavior. K. M. LOHR*; A. I. BERNSTEIN; K. A. STOUT; A. R. LUCE; T. S. GUILLOT; M. WANG; Y. LI; A. SALAHPOUR; G. W. MILLER. *Emory Univ., Univ. of Toronto.*

3:00 E12 **227.03** Genetic manipulation of vesicular transport machinery mediates dopamine neurochemistry and release dynamics. A. LUCE*; K. M. LOHR; K. A. STOUT; A. I. BERNSTEIN; T. S. GUILLOT, III; T. S. GUILLOT, III; M. WANG; Y. LI; A. SALAHPOUR; G. W. MILLER. *Emory Univ., Univ. of Toronto, Emory Univ.*

4:00 E13 **227.04** ▲ Dextroamphetamine induces reanimation from sevoflurane general anesthesia by enhancing dopaminergic neurotransmission. J. D. KENNY; E. N. BROWN; K. SOLT*. *Massachusetts Gen. Hosp.*

1:00 E14 **227.05** Regulation of noradrenaline transporter gene expression by nicotine. N. SOGAWA*; C. SOGAWA; K. OHYAMA; X. WEN; D. YI; S. KITAYAMA. *Okayama Univ. Grad. Sch. Med. Dent. Pharmaceut. Sci.*

2:00 E15 **227.06** ▲ Noradrenergic axon terminals in the prefrontal cortex of mice heterozygous for the norepinephrine transporter show limited differences when compared to wild-type mice in plasmalemmal and cytoplasmic transporter localization and content of tyrosine hydroxylase. K. M. MARKLE; S. L. ERICKSON; J. BALCITA-PEDICINO*; M. K. HAHN; S. R. SESACK. *Univ. of Pittsburgh, Vanderbilt Univ. Sch. of Med.*

3:00 E16 **227.07** Effects of serotonin transporter deletion on microglial function. C. G. ALVARADO*; Y. LIU; J. F. NEUMAIER; T. J. MONTINE; C. E. HAGAN. *Univ. of Missouri, Univ. of Washington.*

4:00 E17 **227.08** A novel trans-synaptic neuroligin 2/serotonin transporter protein complex regulates serotonin signaling. R. YE*; M. QUINLAN; D. AIREY; H. IWAMOTO; H. WU; C. JETTER; J. VEENSTRA-VANDERWEELE; P. LEVITT; R. D. BLAKELY. *Vanderbilt Univ. Med. Ctr., Vanderbilt Silvio O. Conte Ctr. for Neurosci. Res., Childrens Hosp. Los Angeles and the Univ. of Southern California, Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr.*

1:00 E18 **227.09** The role of ongoing versus early-life IL-1R/p38 MAPK signaling in raphe neurons in the enduring effects of early-life stress. N. L. BAGANZ*; L. J. HARBOM; J. T. SMITH; R. D. BLAKELY. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr.*

2:00 E19 **227.10** Discovery of monoamine transporter ligands via virtual screening with the S1 substrate pocket of the serotonin transporter. L. M. GEFFERT; R. R. ROSS; T. L. NOLAN; B. J. KOLBER; J. D. MADURA; C. K. SURRATT*. *Duquesne Univ., Duquesne Univ., Duquesne Univ.*

3:00 E20 **227.11** Are the acute and chronic behavioral actions of serotonin selective reuptake inhibitors mediated solely by the serotonin transporter? Studies of drug action with the SERT M172 mouse. A. G. NACKENOFF*; A. B. MOUSSA-TOOKS; R. D. BLAKELY. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

4:00 E21 **227.12** Mechanisms contributing to lack of antidepressant efficacy in juveniles and adolescents. N. MITCHELL*; W. OWENS; R. HORTON; M. VITELA; G. GOULD; W. KOEK; L. DAWS. *Univ. of Texas Hlth. Sci. Ctr. At San Antonio, Univ. of Texas Hlth. Sci. Ctr. At San Antonio, Univ. of Texas Hlth. Sci. Ctr. At San Antonio.*

POSTER

228. Dopamine Transporters: Modulation and Disease

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 E22 **228.01** Unique neuro-adaptations of the dopaminergic synapse in DAT mutant mice with altered cocaine-, food-, and sugar-reinforced operant behavior. G. SORENSEN*; P. H. HANSEN; P. WEIKOP; M. RICKHAG; D. LEO; R. R. GAINETDINOV; A. FINK-JENSEN; G. WÖRTWEIN; U. GETHER. *Mol. Neuropharm, Group, Dept. of Neurosci. & Pharmacology, Univ. of Copenhagen, Lab. of Neuropsychiatry, Italian Inst. of Technol., Dept. of Publ. Hlth.*

2:00 E23 **228.02** Increases in rapid nucleus accumbens dopamine signaling, and cocaine and methylphenidate potency in social isolation reared rats. J. T. YORGASON*; E. S. CALIPARI; M. FERRIS; N. J. ALEXANDER; B. A. MCCOOL; J. L. WEINER; S. R. JONES. *Wake Forest Sch. of Med.*

3:00 E24 **228.03** PIP2 regulation of amphetamine-induced dopamine efflux and behaviors. A. N. BELOVICH**; P. J. HAMILTON**; C. SAUNDERS; G. KHELASHVILI; H. WEINSTEIN; H. SITTE; H. J. G. MATTHIES; A. GALLI*. *Vanderbilt Univ., Vanderbilt Univ., Weill Cornell Med. Col. of Cornell Univ., Med. Univ. of Vienna, Vanderbilt Univ.*

4:00 E25 **228.04** Intracellular S(+)-Methamphetamine decreases dopamine-dependent inward current via dopamine transporter. K. SAHA*; S. GOODWIN; D. ANGOLI; P. DAVARI; L. VILLARROEL; H. KHOSHBOUEI. *Univ. of Florida, Meharry Med. Col.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 E26 **228.05** Methamphetamine affects the plasma membrane mobility of the dopamine transporter via a calcium-dependent mechanism. J. S. GOODWIN*; K. SAHA; P. DAVARI; L. VILLARROEL; H. KHOSHBOUEI. *Meharry Med. Col., Univ. of Florida.*

2:00 E27 **228.06** σ-1 receptor regulates methamphetamine inhibition of substrate uptake via dopamine transporter. D. O. SAMBO*; M. LIN; B. BLOUGH; D. ANGOLI; H. KHOSHBOUEI. *Univ. of Florida, RTI Intl.*

3:00 E28 **228.07** Exploring the association of the dopamine transporter with the sigma-1 receptor. W. C. HONG*; S. G. AMARA. *Intramural Res. Program, Natl. Inst. On Drug Abuse, Natl. Inst. of Mental Hlth.*

4:00 E29 **228.08** Electrophysiological and amperometric evidence that modafinil blocks the dopamine uptake transporter to induce behavioral activation. N. B. MERCURI*; M. FEDERICI; C. LATAGLIATA; F. RIZZO; R. NISTICÒ; S. PUGLISI-ALLEGRA. *IRCCS -SANTA LUCIA FOUNDATION.*

1:00 E30 **228.09** Dopamine transporter coding variant Ala559Val associated with attention deficit hyperactivity disorder impairs dopamine transporter trafficking and function. E. A. BOWTON; C. SAUNDERS; D. SAKRIKAR; R. D. BLAKELY; H. J. G. MATTHIES; A. GALLI; K. ERREGER*. *Vanderbilt Univ., Vanderbilt Univ.*

2:00 E31 **228.10** De novo mutation in the dopamine transporter gene associates dopamine dysfunction with autism spectrum disorder. P. J. HAMILTON*; N. G. CAMPBELL; S. SHARMA; K. ERREGER; F. HERBORG HANSEN; C. SAUNDERS; A. N. BELOVICH; E. H. COOK, Jr.; U. GETHER; H. S. MCHAOURAB; H. J. G. MATTHIES; J. S. SUTCLIFFE; A. GALLI. *Vanderbilt Univ., Vanderbilt Univ., Univ. of Copenhagen, Vanderbilt Univ., Univ. of Illinois at Chicago, Vanderbilt Univ.*

3:00 E32 **228.11** Identification and characterization of recognition binding sites on human dopamine transporter involved in HIV-1 Tat-mediated disruption of dopamine transport. N. M. MIDDE*; X. HUANG; A. M. GOMEZ; C. ZHAN; J. ZHU. *Univ. of South Carolina, Univ. of Kentucky.*

4:00 E33 **228.12** GDNF/Ret signaling regulates dopamine transporter trafficking via guanine nuclear exchange factor Vav2. C. ZHAO*; S. ZHU; J. ZHOU. *Inst. of Neuroscience, Chinese Acad. of Sci.*

1:00 E34 **228.13** Gβγ protein activation promotes dopamine efflux trough the Dopamine Transporter. J. GARCIA-OLIVARES*; S. G. AMARA; G. E. TORRES. *Natl. Inst. of Mental Health/NIH, Univ. of Pittsburgh.*

2:00 E35 **228.14** Sumoylation modulates Alpha synuclein interaction with the Dopamine Transporter. E. CARTIER*; H. KHOSHBOUEI. *Univ. of Florida, Univ. of Florida.*

3:00 E36 **228.15** Alpha-synuclein regulates trafficking of dopamine transporter. B. R. BUTLER*; E. CARTIER; D. ANGOLI; H. KHOSHBOUEI. *Univ. Of Florida, Univ. of Florida.*

4:00 E37 **228.16** Protein-kinase c mediated internalization of the dopamine transporter. S. M. UNDERHILL*; S. G. AMARA. *NIH/NIMH.*

1:00 E38 **228.17** Voltage-dependent regulation of dopamine transporter trafficking. B. D. RICHARDSON*; E. CARTIER; J. SWANT; K. SAHA; D. ANGOLI; M. ZOU; A. H. NEWMAN; H. KHOSHBOUEI. *Univ. of Florida, Natl. Inst. on Drug Abuse.*

2:00 E39 **228.18** Investigating microdomain localization of the dopamine transporter using super-resolution microscopy. T. RAHBEK-CLEMMENSEN; J. ERIKSEN; S. ERLENDSSON; T. N. JORGENSEN*; U. GETHER. *Univ. of Copenhagen, The Lundbeck Fndn. Ctr. for Biomembranes in Nanomedicine.*

3:00 E40 **228.19** Protomers in a dopamine transporter oligomer can influence each other. T. ANTONIO; S. CHENG; J. ZHEN; S. ALI; K. T. JONES; M. E. REITH*. *New York Univ. Schl Med., John Jay Col. of Criminal Justice, New York Univ. Schl Med., New York Univ. Sch. Med.*

4:00 E41 **228.20** L-DOPA induces non-vesicular dopamine release. D. XU*; W. SHI. *Loma Linda Univ. Sch. of Pharm., Loma Linda Univ. Schs of Pharm. and Med.*

1:00 E42 **228.21** Slc6a3-GFP: A novel transgenic mouse strain to obtain high purity isolation of dopaminergic neurons. M. RICKHAG*; S. STILLING; J. ERIKSEN; G. SØRENSEN; T. RAHBEK-CLEMMENSEN; J. PRAVSGAARD CHRISTENSEN; U. GETHER. *Molecular. Neuropharm Lab, Dept. of Neurosci & Pharmacol, Univ. of Copenhag, Dept. of Intl. Health, Immunol. and Microbiology, Univ. of Copenhagen.*

2:00 E43 **228.22** Dopamine signaling in *C. elegans* is regulated presynaptically by a highly conserved ortholog of the atypical MAP Kinase ERK7/8. D. BERMINGHAM*; J. A. HARDAWAY; S. M. WHITAKER; S. L. HARDIE; L. CARVELLI; R. D. BLAKELY. *Vanderbilt Univ., UND Sch. of Med. and Hlth. Sci.*

POSTER

229. Synaptic Transmission: Presynaptic Structure and Organization

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 E44 **229.01** Loss of α4-laminin results in aberrant neurotransmission in multiple skeletal muscle fiber types. K. K. CHAND*; K. LEE; P. G. NOAKES; N. A. LAVIDIS. *The Univ. of Queensland, Queensland Brain Inst.*

2:00 E45 **229.02** Organization of the presynaptic filamentous matrix in glutamatergic hippocampal synapses analyzed by EM tomography. A. A. COLE*; X. CHEN; T. S. REESE. *NINDS.*

3:00 E46 **229.03** An ATP binding site regulates synapsin IIa function. D. GITLER*; Y. SHULMAN. *Fac. of Hlth. Sciences, Ben-Gurion Univ.*

4:00 E47 **229.04** Novel ligands of the synaptic organizer neurexin 1alpha. G. RUDENKO*; Y. WANG; L. ZHANG; Z. LU; F. CHEN; A. M. CRAIG; G. REN. *Univ. Michigan, Lawrence Berkeley Natl. Lab., Brain Res. Centre, Univ. of British Columbia.*

1:00 E48 **229.05** Trans-synaptic regulation of presynaptic organization and function by postsynaptic N-Cadherin. T. SHINOE*; Y. GODA. *RIKEN Brain Sci. Inst.*

2:00 E49 **229.06** Transsynaptic modulation of the synaptic vesicle cycle by synaptic adhesion molecules. B. VAN STEGEN; K. GOTTMANN*. *Univ. Duesseldorf.*

3:00 E50 **229.07** Analysis of synapsin III function at the squid giant synapse. S. SONG*; G. J. AUGUSTINE. *Korea Inst. of Sci. and Technology(KIST), Marine Biologucal Lab., Duke-NUS Grad. Med. Sch., Marine Biol. Lab.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 E51 **229.08** Amygdala intercalated cells provide presynaptically - modulated sensory feed-forward and feedback inhibition to the basolateral amygdala. D. T. ASEDE*; D. BOSCH; F. FERRAGUTI; I. EHRLICH. *HIH / CIN, Univ. of Tuebingen, Grad. Sch. of Neural & Behavioural Sciences, IMPRS, Dept. of Pharmacology, Innsbruck Med. Univ.*

1:00 E52 **229.09** The conserved isoforms of Miro may have different roles for mitochondrial biology in axons of *Drosophila.* M. BABIC*; T. M. KUHN; K. E. ZINSMAIER. *Univ. of Arizona, Univ. of Arizona.*

2:00 E53 **229.10** Glutamatergic and GABAergic projections from the medial amygdala to the posterior bed nucleus of the stria terminalis. A. R. BURNS*; D. SHUKLA; L. A. MARTINEZ; B. M. COOKE; A. PETRULIS. *Georgia State Univ., Georgia State Univ.*

3:00 E54 **229.11** Increased post-tetanic asynchronous neurotransmitter release at parasympathetic major pelvic ganglion neurons of type 2 diabetic mice may involve altered mitochondrial regulation of Ca^{2+} homeostasis. J. D. TOMPKINS*; R. PARSONS. *Univ. of Vermont.*

4:00 F1 **229.12** Functions of nuclear distribution proteins in axonal mitochondrial transport. Y. SHEN*; C. SHAO; J. ZHU; Y. XIE; T. ZHOU. *Zhejiang Univ. Sch. Med., Zhejiang Univ. Sch. of Med., Zhejiang Univ. Sch. of Med.*

1:00 F2 **229.13** Excitation by GABA spillover in a sound localization circuit. C. J. WEISZ*; K. KANDLER. *Univ. of Pittsburgh Sch. of Med.*

2:00 F3 **229.14** Human α-synuclein mutants E46K and A53T cause vesicle trafficking defects at the lamprey giant synapse. R. B. WALSH*; D. J. BUSCH; P. A. OLIPHINT; W. S. WOODS; J. M. GEORGE; J. R. MORGAN. *Marine Biol. Lab., The Univ. of Texas at Austin, The Univ. of Illinois, Queen Mary Univ. of London.*

3:00 F4 **229.15** Super resolution imaging reveals high amounts of BDNF in granules within presynaptic glutamatergic synapses of hippocampal neurons *in vitro.* R. BLUM*; T. ANDRESKA; S. AUFMKOLK; S. VAN DE LINDE; M. SAUER. *Univ. of Wuerzburg, Univ. of Wuerzburg.*

4:00 F5 **229.16** Electron microscope tomography of synaptic cell adhesion proteins. B. HIGH*; X. CHEN; T. REESE. *NIH, NIH.*

1:00 F6 **229.17** Using tetanus toxin (TNT) to blast the SNARE machinery. K. NEUSER; N. EHMANN; T. MARTINI; M. SAUER; M. HECKMANN; M. PAULI*. *Inst. of Physiology, Julius-Maximilians Univ., Biocenter, Julius-Maximilians Univ.*

2:00 F7 **229.18** Syntaxin Habc domain is required for synaptic function. L. A. PARRA*; J. M. WHIPPEN; C. Y. DY; E. JORGENSEN. *Univ. of Utah, Univ. of Utah, Univ. of Utah.*

3:00 F8 **229.19** The α-neurexin ligand neurexophilin 3 modulate important properties of excitatory synapses. S. WANG; G. BORN; A. BLANQUÉ; A. ROHLMANN; M. MISSLER*. *Westfaelische Wilhelms Univ. of Muenster.*

4:00 F9 **229.20** α4-laminin is not involved in the developmental switch of voltage-gated calcium channel subtypes. K. LEE*; K. K. CHAND; N. A. LAVIDIS; P. G. NOAKES. *The Univ. of Queensland, Queensland Brain Inst.*

1:00 F10 **229.21** Functional role of the ATP-binding site of Synapsin I in synaptic vesicle trafficking and release dynamics. G. LIGNANI*; M. ORLANDO; L. MARAGLIANO; S. GIOVEDI`; S. GALIANI; A. FASSIO; P. BIANCHINI; A. DIASPRO; P. BALDELLI; F. BENFENATI. *Inst. Italiano Di Tecnologia, Univ. of Genova, Inst. Italiano Di Tecnologia.*

2:00 F11 **229.22** ▲ Mechanisms of kHz-transmission at a central synapse. A. RITZAU-JOST*; I. DELVENDAHL; A. WEYHERSMÜLLER; J. HIRRLINGER; H. SCHMIDT; J. EILERS; S. HALLERMANN. *Leipzig Univ., Univ. Med. Center, Göttingen Univ., Max-Planck-Institute for Exptl. Med.*

3:00 F12 **229.23** Adrenergic C1 neurons drive central noradrenergic (NE) neurons via monosynaptic glutamatergic synapses. B. B. HOLLOWAY*; R. L. STORNETTA; G. BOCHORISHVILI; K. E. VIAR; P. G. GUYENET. *Univ. of Virginia.*

4:00 F13 **229.24** Synaptic analysis of neurexin 2 (nrxn2) function in conditional nrxn2 knockout mice. L. Y. CHEN*; T. C. SUDHOF. *Stanford Univ., Stanford Univ.*

1:00 F14 **229.25** Nanoscale organization of readily-releasable vesicles in native hippocampal terminals. F. CRAWFORD*; V. MARRA; K. STARAS. *Univ. of Sussex, Univ. of Leicester, Univ. of Sussex.*

2:00 F15 **229.26** *In vitro* monosynaptic circuits of Helix neurons as an experimental model to study synapsin knock-down. O. BRENES; C. N. G. GIACHELLO; M. GHIRARDI; P. MONTAROLO*. *Univ. of Turín, Univ. of Manchester, Univ. of Turín, Univ. Turin.*

3:00 F16 **229.27** Glutamatergic and cholinergic miniature synaptic currents at the motoneuron-Renshaw cell synapse. B. LAMOTTE D'INCAMPS; P. ASCHER*. *Univ. Paris Descartes, Univ. Paris Descartes, CNRS.*

4:00 F17 **229.28** Developmental regulation of GABAb-mediated modulation of sensory inputs to lateral amygdala principal neurons. D. BOSCH; I. D. EHRLICH*. *HIH / CIN Tuebingen Univ.*

POSTER

230. Synaptic Transmission: Modulation I

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 F18 **230.01** Physiologically evoked DA release from LC terminals mediates long term hippocampal, CA1 synaptic enhancement. C. C. SMITH*; M. S. GOLDBERG; R. W. GREENE. *UT Southwestern Med. Ctr., UT Southwestern Med. Ctr.*

2:00 F19 **230.02** Neurotensin and its analog, D-Tyr[11] neurotensin, differentially modulate excitatory post-synaptic currents in different populations of ventral midbrain neurons. P. BOSE*; P. ROMPRÉ; R. A. WARREN. *Univ. De Montréal, Univ. de Montréal, Concordia Univ.*

3:00 F20 **230.03** Wnt-5a acts through Gαi/0 to regulate dendritic spine formation in hippocampal neurons. V. T. RAMIREZ*; D. ORDENES; F. G. SERRANO; N. C. INESTROSA. *Pontifical Catholic Univ.*

4:00 F21 **230.04** Modulatory role of t-cadherin in hippocampal synaptic functions. H. BADIE-MAHDAVI*; A. J. ROBERTS; B. RANSCHT. *Sanford-Burnham Med. Res. Inst., The Scripps Res. Inst.*

1:00 F22 **230.05** ▲ An amphipatic alpha-helix in Corticotrophin Releasing Factor Binding Protein determines its sorting to the regulated secretory pathway. C. P. BASTIAS; E. H. BLANCO; K. GYSLING*. *Millenium Sci. Nucleus Stress and Addiction, Pontificia Univ. Catolica de Chile.*

2:00 F23 **230.06** Neurotensinergic modulation of synaptic transmission in the oval Bed Nucleus of the Stria Terminalis. C. P. NORMANDEAU*; C. DI PROSPERO; E. HAWKEN; E. C. DUMONT. *Queen's Univ., Queen's Univ.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

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3:00 F24 **230.07** Serotonergic excitation of amygdala projection neurons in the mouse medial prefrontal cortex. D. AVESAR*; A. T. GULLEDGE. *Geisel Sch. of Med. at Dartmouth.*

4:00 F25 **230.08** **Withdrawn.**

1:00 F26 **230.09** Inhibitory effect of pregabalin on excitatory synaptic transmission in the spinal dorsal horn after nerve injury. R. MATSUZAWA; S. YAMAGUCHI*; T. TAKASUSUKI; T. OHTSUBO; Y. HORI. *Dokkyo Med. University, Sch. of Med., Dokkyo Med. University, Sch. of Med., Dokkyo Med. University, Sch. of Med.*

2:00 F27 **230.10** Presynaptically mediated effects of cholecystokinin on the excitability of area postrema neurons in rat brain slices. S. SUGETA*; M. FUNAHASHI. *Hokkaido Univercity.*

3:00 F28 **230.11** Functional interaction of Synapsin II and Rab3a at cultured hippocampal neurons. H. Y. MATOS*; R. ANDRADE; M. BYKHOVSKAIA. *Univ. Central Del Caribe, Wayne State University, Sch. of Med.*

4:00 F29 **230.12** Promiscuous interactions of dopamine augment GABA release within rat entorhinal cortex. N. I. CILZ*; L. KURADA; B. HU; S. LEI. *Univ. of North Dakota.*

1:00 F30 **230.13** Exclusive glycine receptor-mediated inhibition to forelimb motoneurons in adult mouse spinal cord. J. JIANG*; B. ALSTERMARK. *Dept. of Integrative Med. Biology, Section of Physiol.*

2:00 F31 **230.14** Modulation of excitatory synaptic transmission by the somatodendritic release of glycine in the rat medial nucleus of the trapezoid body. M. KRALIKOVA*; R. TURECEK. *Inst. of Exptl. Medicine, CAS CZ, Inst. of Exptl. Med. CAS.*

3:00 F32 **230.15** Rapid membrane estrogen receptor activation increases the excitatory/inhibitory ratio in rat basal forebrain slices. J. C. DAMBORSKY*; D. W. DUBOIS; A. S. FINCHER; C. ROTH; W. H. GRIFFITH. *Texas A&M Univ. Syst. Hlth. Sci. Ctr.*

4:00 F33 **230.16** Reciprocal regulation of inhibitory synaptic transmission by nicotinic and muscarinic receptors in rat nucleus accumbens shell. K. EBIHARA; K. YAMAMOTO; K. UEDA; N. KOSHIKAWA; M. KOBAYASHI*. *Nihon Univ. Sch. Dent., Nihon Univ. Sch. Dent.*

1:00 F34 **230.17** GABAergic projection neurons gate odor-specific inputs to higher order neurons. Y. LI*; L. LIANG; C. POTTER; R. TSIEN; L. LUO. *Peking Univ., Stanford Univ., Stanford Univ., Howard Hughes Med. Inst., Johns Hopkins Univ., Stanford Univ., New York Univ.*

2:00 F35 **230.18** Imbalance of excitatory and inhibitory synaptic transmission lowers seizure threshold in RalBP1 hypomorphic mice. S. H. YOON*; Y. BAE; K. PARK; M. KIM. *Seoul Natl. Univ. Col. of Med.*

3:00 F36 **230.19** Mechanisms of synaptic modulation by acetylcholine underlying acquisition and extinction of conditioned fear. J. D. LEDERMAN*; D. A. TALMAGE; L. W. ROLE. *Stony Brook Univ.*

4:00 F37 **230.20** Presynaptic GABAb receptors silence excitatory synapses in neocortical networks. J. URBAN CIECKO*; E. FANSELOW; A. L. BARTH. *Carnegie Mellon Univ.*

1:00 F38 **230.21** Nicotine disinhibits pyramidal cells via activation of oriens/alveus interneurons in rat hippocampal CA1 region. K. SUMIKAWA*; S. NAKAUCHI. *Univ. California Irvine.*

2:00 F39 **230.22** Dual mechanisms diminishing tonic $GABA_A$ inhibition of dentate gyrus granule cells in Noda epileptic rats. S. PANDIT; D. KIM; H. KIM; J. PARK*. *Sch. of Medicine, Chungnam Natl. Univ., Sch. of Medicine, Chungnam Natl. Univ.*

3:00 F40 **230.23** Cholinergic modulation of intact CA3 circuits *in vivo.* M. GRIGUOLI*; S. ZUCCA; C. MULLE. *IINS, Interdisciplinary Inst. For Neurosci.*

4:00 F41 **230.24** Wiring principles in lateral subdivision of central amygdala. W. S. HO*; C. LIEN. *Natl. Yung-Ming Univ.*

1:00 F42 **230.25** GABAergic dysfunction in anterior cingulate cortex of heterozygous BRD1 knockout mice. I. V. VARDYA*; J. H. CHRISTENSEN; P. QVIST; M. NYEGAARD; O. MORS; K. JENSEN; A. D. BØRGLUM. *Dept. of Biomedicine, Aarhus Univ., The Lundbeck Fndn. Initiative for Integrative Psychiatric Res., Ctr. for Psychiatric Research, Aarhus Univ. Hosp.*

2:00 F43 **230.26** Acetycholine reorganizes functional neocortical circuitry to favor feedforward thalamocortical information flow into superficial lamina. M. J. RUNFELDT*; J. N. MACLEAN. *Univ. of Chicago, Univ. of Chicago.*

3:00 F44 **230.27** Distribution of GAD65 and GAD67 immunoreactive somata in the mouse cortex: Classification using molecular markers. H. MIWA*; M. WATANABE; Y. YANAGAWA. *Gunma Univ., JST, CREST, Hokkaido Univ. Sch. of Med.*

4:00 F45 **230.28** Carbachol induces a relative facilitation of intracellular EPSPs during short trains of theta- and gamma-frequency stimulation of the entorhinal cortex. D. W. SPARKS*; C. A. CHAPMAN. *Concordia Univ.*

1:00 F46 **230.29** ▲ Regulation of excitatory synaptic transmission at the hippocampal slices by synapsin II and Rab3a. K. J. QUINONES*; P. FELICIANO; M. BYKHOVSKAIA. *Univ. Central Del Caribe.*

2:00 G1 **230.30** Lethal phenotype of conditional VIAAT-knock-out in glycinergic neurons. J. RAHMAN; C. SCHNELL; V. EULENBURG*; S. M. WOJCIK; S. HÜLSMANN. *Inst. for Neurophysiol. and cellular Biophysics, Univ. of Erlangen, Inst. for Biochem. and Mol. Med., Max-Planck-Institute of Exptl. Med.*

POSTER

231. Synaptic Transmission: Modulation II

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G2 **231.01** ▲ Lactic acid modulates excitatory synaptic transmission at the calyx of Held. O. D. UCHITEL*; C. GONZALEZ INCHAUSPE; M. N. DI GUILMI. *IFIBYNE UBA CONICET, IFIBYNE-CONICET, FCEyN, Univ. of Buenos Aires.*

2:00 G3 **231.02** Network reponses to botulinum neurotoxin in synaptically coupled central nervous system neurons. P. H. BESKE*; K. S. HUBBARD; I. M. GUT; M. E. LYMAN; P. M. MCNUTT. *US Army Med. Res. Inst. of Chem. Def.*

3:00 G4 **231.03** Modulation of glutamate and dopamine levels in the prefrontal cortex by intra-cerebellar kynurenic acid infusion in the rat. H. WU*; R. SCHWARCZ. *Maryland Psych Res. Ctr, Univ. Maryland Sch. Med.*

4:00 G5 **231.04** Fluoxetine alters the mode of exocytosis in kinetically distinguished synaptic subtypes. A. W. HENKEL*; O. WELZEL. *Kuwait Univ., Univ. of Erlangen-Nuremberg.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 G6 **231.05** Role of a D2-like auto-receptor in modulating dopamine release in C.elegans and the potential co-transmission of dopamine with glutamate. H. S. DHILLON*; R. FORMISANO; M. MERSHA; R. KING; P. HAN; J. SINGH. *Delaware State Univ., Delaware State Univ.*

2:00 G7 **231.06** Effects of action potential waveforms and the depolarizing afterpotential on calcium channel activity in the calyx of Held. K. G. PARADISO*; S. CLARKE; A. KISNER; B. CROWELL. *Rutgers Univ.*

3:00 G8 **231.07** Potentiation of adrenal catecholamine secretion by prostaglandin E_2: A novel role for "inhibitory" G proteins? R. L. BRINDLEY*; M. L. JEWELL; K. P. M. CURRIE. *Vanderbilt Univ. Sch. of Med., Vanderbilt Univ. Sch. of Med., Vanderbilt Univ. Sch. of Med.*

4:00 G9 **231.08** Mechanism of H_2O_2-induced facilitation on synaptic activity at developing neuromuscular synapse. J. LIOU*. *Natl. Sun Yat-Sen Univ.*

1:00 G10 **231.09** Protein phosphatase 2A activation and GluR1 AMPA receptor dephosphorylation mediate adenosine A1 receptor-mediated synaptic depression in rat hippocampus. J. A. STOCKWELL*; Z. CHEN; M. NIAZI; N. SHU; F. S. CAYABYAB. *Univ. of Saskatchewan.*

2:00 G11 **231.10** Dopaminergic agonists increase excitatory postsynaptic potentials in rat hippocampus in a region and input specific manner. N. RIZVI*; A. C. ARAI. *Southern Illinois Univ. Sch. of Med.*

3:00 G12 **231.11** ▲ Anesthetic and ethanol enhancement of GABAA slow receptor-mediated synaptic inhibition. E. S. POSADAS; B. A. DAGNE; M. K. SUNAY; J. R. TRUDELL; B. H. BLAND; B. MACIVER*. *Stanford Univ., Univ. of Calgary, STANFORD.*

4:00 G13 **231.12** AAV2-agrin sciatic nerve delivery suppresses neuropathic pain induced by spinal cord injury. J. CUI*; D. ERASSO; G. TENDER; R. LEVITT. *Univ. of Miami, Louisiana State Univ.*

1:00 G14 **231.13** Imaging synaptic zinc release in the dorsal cochlear nucleus with newly developed zinc sensors and chelators. C. T. ANDERSON*; R. J. RADFORD; U. PETER-APFEL; S. J. LIPPARD; T. TZOUNOPOULOS. *Univ. of Pittsburgh, MIT, Univ. of Pittsburgh.*

2:00 G15 **231.14** Evaluation of neuromuscular transmission in organophosphorus toxicity. K. N. DISSANAYAKE*; V. PATEL; J. MCARDLE; M. EDDLESTON; R. R. RIBCHESTER. *Univ. of Edinburgh, Univ. of Med. and Dent. New Jersey, Univ. of Edinburgh.*

3:00 G16 **231.15** Direct and heterogeneous control of striatal cholinergic neuron firing by midbrain dopamine neurons. N. CHUHMA*; S. MINGOTE; H. MOORE; S. RAYPORT. *Columbia Univ., NYS Psychiatric Inst.*

4:00 G17 **231.16** Measuring bioenergetic function at the nerve terminal. D. PATHAK*; L. SHIELDS; H. KIM; R. EDWARDS; K. NAKAMURA. *The J. David Gladstone Inst., Dept. of Neurology, UCSF.*

1:00 G18 **231.17** Developmental and NMDA receptor-dependent mechanisms contribute to changes in expression of prostaglandin E synthase isozymes in cultures of cortical neurons. Y. GONG; W. WANG; J. A. HEWETT*. *Syracuse Univ., Syracuse Univ.*

2:00 G19 **231.18** Dopamine D_1-family receptors enhance excitatory synaptic currents in layer II of the entorhinal cortex via activation of cAMP-PKA, PP-1, and calcium influx. I. GLOVACI*; C. A. CHAPMAN. *Concordia Univ.*

3:00 G20 **231.19** Features of synaptic activity in primary culture of rat cortical neurons. D. A. SIBAROV*; S. M. ANTONOV. *Sechenov Inst. of Evolutionary Physiol. and Biochem., Saint-Petersburg State Polytechnical Univ.*

4:00 G21 **231.20** Nerve injury increases GluR2-lacking ampa receptor prevalence in spinal cords. S. CHEN*; H. ZHOU; H. BYUN; H. PAN. *Univ. of Texas MD Anderson Cancer Ctr., MD Anderson Cancer Ctr.*

1:00 G22 **231.21** ARPP-16, protein kinase A and MAST3 kinase: A newly identified pathway for regulation of protein phosphatase PP2A in striatal neurons. V. MUSANTE*; E. ANDRADE; J. CANIO; P. GREENGARD; A. C. NAIRN. *Yale Univ. Sch. of Med., Rockefeller Univ., Yale Univ. Sch. of Med., Rockefeller Univ.*

2:00 G23 **231.22** Lactate modulates neuronal excitability through both NMDA and KATP receptors: role in plasticity genes expression. P. J. MAGISTRETTI*; P. JOURDAIN; J. YANG; G. GRENNINGLOH; E. RUCHTI; J. PETIT; I. ALLAMAN. *Ecole Polytechnique, Ctr. de Neurosciences Psychiatriques.*

POSTER

232. Synaptic Transmission: Modulation III

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G24 **232.01** Local agmatine injection increases striatum extracellular dopamine in rats. L. R. BETANCOURT*; M. SKIRZEWSKI; B. CATLOW; D. PAREDES; P. RADA; L. HERNANDEZ. *Univ. Los Andes, NICHD, Lieber Inst. for brain development.*

2:00 G25 **232.02** Platelet activating factor modulates synaptic vesicle release. J. W. HAMMOND*; S. LU; H. A. GELBARD. *Univ. of Rochester, Univ. of Rochester.*

3:00 G26 **232.03** ▲ Effects of modafinil on the expression of map-k in anterior hypothalamus and pedunculopontine tegmental nucleus of rats. A. POOT-AKE*; S. MIJANGOS-MORENO; A. MANJARREZ-MARTÍN; E. CRUZ-CORZO; E. PACHECO-PANTOJA; P. AQUINO- HERNÁNDEZ; E. MURILLO-RODRÍGUEZ. *Univ. Anahuac Mayab, Univ. Anahuac Mayab.*

4:00 G27 **232.04** Spontaneous neurotransmitter release and synaptic plasticity. E. D. NOSYREVA*; L. MONTEGGIA; E. KAVALALI. *UTSW Med. Ctr.*

1:00 G28 **232.05** The adenosine A2A receptor modulates synaptic transmission in layer 2/3 pyramidal cells of visual cortex. N. M. BANNON*; P. ZHANG; V. ILIN; M. CHISTYAKOVA; M. VOLGUSHEV. *Univ. of Connecticut.*

2:00 G29 **232.06** Effect of adenosine A1 and A2A receptors on inhibitory and excitatory transmission in layer 2/3 of rat visual cortex. P. ZHANG*; N. BANNON; V. ILIN; M. CHISTYAKOVA; M. VOLGUSHEV. *Univ. of Connecticut, Univ. of Connecticut.*

3:00 G30 **232.07** Picomolar concentrations of pregnenolone sulfate stimulate synaptic NMDAR-mediated CREB phosphorylation via an Erk signaling pathway. C. C. SMITH*; K. SUGUNAN; V. KUMARESAN; S. J. RUSSEK; T. T. GIBBS; D. H. FARB. *Boston Univ. Sch. of Med.*

4:00 G31 **232.08** NMDA receptor currents in pyramidal neurons of the orbitofrontal cortex are potentiated through activation of a PLC-coupled dopamine receptor pathway in juvenile but not adult rats. J. L. THOMPSON*; S. L. BORGLAND. *Univ. of British Columbia, Univ. of Calgary.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 G32 **232.09** Pharmacological characterization of TMS-evoked EEG responses by positive modulators at the GABA-A receptor. I. PREMOLI; N. CASTELLANOS; R. BAJO; D. RIVOLTA; F. MULLER-DAHLHAUS*; C. ZIPSER; T. HEIDEGGER; U. ZIEMANN. *Eberhard-Karls-University, Goethe-University, Univ. Politécnica de Madrid, Ernst Strüngmann Inst. (ESI) for Neurosci.*

2:00 G33 **232.10** Effects of mood stabilizers on synaptic protein levels and dendritic outgrowth in hippocampal neuronal cultures. M. SEO; C. LEE; H. CHO; J. LEE; B. LEE; W. SEOL; Y. KIM; S. PARK*. *Inje Univ., Inje Univ., Wonkwang Univ.*

3:00 G34 **232.11** Fluoxetine impairs GABAergic signaling in hippocampal slices from neonatal rats. M. D. CAIATI*; E. CHERUBINI. *Harvard Univ., SISSA.*

4:00 G35 **232.12** Role of kainate receptors in the pathophysiology of temporal lobe epilepsy. V. CREPEL*; A. PERET; L. CHRISTIE; D. OUEDRAOGO; J. EPSZTEIN; A. GORLEWICZ; C. MULLE. *INMED, INSERM, U901, Interdisciplinary Inst. for Neuroscience, CNRS UMR 5297.*

1:00 G36 **232.13** Potentiation of GABA-mediated synaptic inhibition as a novel target for post-stroke recovery. T. HIU*; T. BLISS; J. PAZ; E. WANG; A. OLSON; K. MICHEVA; Z. FARZAMPOUR; G. WANG; K. TRAN; N. MANLEY; Y. NISHIYAMA; A. ARAC; N. O'ROURKE; J. HUGUENARD; S. SMITH; G. STEINBERG. *Dept. of Neurosurgery, Nagasaki Univ., Dept. of Neurosurg. and Stanford Stroke Center, Stanford Univ. Sch. of Med., Dept. of Neurol. and Neurolog. Sciences, Stanford Univ. Sch. of Med., Inst. for Neuro-Innovation and Translational Neurosciences, Stanford Univ. Sch. of Med., Dept. of Mol. and Cell. Physiology, Stanford Univ.*

2:00 G37 **232.14** JZ-V improved learning and memory impairment and accelerated perforant path-dentate gyrus LTP in intact animals. X. WANG*; X. CHEN; X. LIU; Y. XIE; T. QIAN. *Inst. of Medicinal Plant Development, Chinese Acad. of Med. Sci.*

3:00 G38 **232.15** Identification of synergistic drug combinations using modeling and simulation of Long-Term Potentiation. A. F. KELLER; N. AMBERT; A. LEGENDRE; R. GREGET; M. SARMIS; M. BEDEZ; F. LALOUE; J. KOENIG; J. C. BOUTEILLER; S. BISCHOFF*; T. W. BERGER; M. BAUDRY. *Rhenovia, Univ. of Maryland Sch. of Med., USC, Rhenovia Pharma, Western Univ. of Hlth. Sci.*

POSTER

233. LTP: Kinases and Intracellular Signaling

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G39 **233.01** Regular exercise prevented hippocampal L-LTP impairment and aberrant alterations in levels of L-LTP related signaling molecules in Alzheimer's disease-like pathology. A. DAO*; M. ZAGAAR; S. SALIM; K. ALKADHI. *Univ. of Houston, Texas Southern Univ.*

2:00 G40 **233.02** ● Analysis of atypical PKCs in hippocampal synaptic plasticity and memory. L. J. VOLK*; J. L. BACHMAN; R. C. JOHNSON; Y. YU; X. YUE; M. LEITGES; R. L. HUGANIR. *Johns Hopkins Univ., Univ. of Oslo.*

3:00 G41 **233.03** Dynamic activity-dependent dephosphorylation of CRTC1 regulates synapse to nuclear transport. M. DESALVO*; T. H. CH'NG; A. VASHISHT; J. WOHLSCHLEGEL; K. C. MARTIN. *UCLA.*

4:00 G42 **233.04** CaMKIIβ as a gating mechanism of activity-induced structural modification of hippocampal dendritic spines. K. KIM*; G. LAKHANPAL; A. SUZUKI; M. HAYASHI; R. NARAYANAN; T. MATSUDA; T. NAGAI; Y. HAYASYI; K. OKAMOTO. *RIKEN Brain Sci. Inst. - Wako, Samuel Lunenfeld Res. Institute, Mount Sinai Hosp., Dept. of Pharmacol. Sch. of Medicine, Keio Univ., The Picower Inst. for Learning and Memory, Massachusetts Inst. of Technol., The Inst. of Scientific and Industrial Research, Osaka Univ., RIKEN-MIT Neurosci. Res. Center, The Picower Inst. for Learning and Memory, Massachusetts Inst. of Technol., Saitama Univ. Brain Sci. Institute, Saitama Univ., Dept. of Mol. Genetics, Fac. of Medicine, Univ. of Toronto.*

1:00 G43 **233.05** Persistent activation of protein kinase A is involved in serotonin-induced long-lasting potentiation of TA-CA1 excitatory synaptic transmission in rodent model of depression. X. QI*; Z. YUAN; P. R. PATRYLO; G. M. ROSE; S. M. THOMPSON; X. CAI. *Dept. of Physiology, Southern Illinois Univ. Sch. of Med., Ctr. for Integrated Res. in Cognitive & Neural Sci., Southern Illinois Univ. Sch. of Med., Sch. of Medicine, Univ. of Maryland at Baltimore.*

2:00 G44 **233.06** Abnormal hippocampal synaptic plasticity in c-Jun N-terminal phosphorylation mutants mice. S. CHOI*; J. SEO; J. HONG; S. LEE. *Seoul Natl. Univ.*

3:00 G45 **233.07** CaMKIINα and GluN2B exhibit similar modes of regulation of CaMKII function. R. V. OMKUMAR*; S. JOHN; M. MADHAVAN. *Mol. Neurobio. Div., Rajiv Gandhi Ctr. for Biotech.*

4:00 G46 **233.08** Mechanisms of compartmentalization of the activated cAMP dependent protein kinase. S. E. TILLO*; H. ZHONG. *Vollum Inst.*

1:00 G47 **233.09** Dual and opposite functions for calpain in long-term potentiation induction and consolidation. G. ZHU*; Y. WANG; V. BRIZ; Y. HSU; X. BI; M. BAUDRY. *Grad. Col. of Biomed. Sciences, Western Univ. of Hlth. Sci., Stanford Inst. of NeuroInnovation and Translational Neurosci., Col. of Osteo. Med. of the Pacific, Western Univ. of Hlth. Sci.*

2:00 G48 **233.10** The role of calpain-mediated cleavage of GluN2B in dendritic spine signaling and remodeling. F. EL GAAMOUCH*; K. DORE; S. LABRECQUE; M. LEMIEUX; B. TOURNIER; P. DE KONINCK. *CRIUSMQ.*

3:00 G49 **233.11** Membrane-to-cytosol translocation of activated AKT kinase disrupts expression of Long-Term Potentiation. I. MICHAELEVSKI*; Y. PEN; A. SHEININ; N. BOROVOK. *Tel Aviv Univ.*

4:00 G50 **233.12** Oxytocin promotes long-term potentiation by enhancing epidermal growth factor receptor-mediated local translation of protein kinase Mζ. Y. LIN; Y. LIU*; C. HUANG; K. HSU. *Natl. Cheng Kung Univ., Natl. Cheng Kung Univ. Hosp.*

1:00 G51 **233.13** Regulation of striatal CaMKII by extracellular calcium influx. J. C. GANDY*; R. COLBRAN. *Vanderbilt Univ.*

2:00 G52 **233.14** A FRET-FLIM-STED approach to dissect protein interactions at nanoscale: Localizing CaMKII interactions within dendritic spines. C. TARDIF*; D. CÔTÉ; P. DE KONINCK. *Univ. Laval.*

3:00 G53 **233.15** Effects of ZIP infusion on the persistence of *in vivo* hippocampal mossy fibers synaptic plasticity. V. A. CÁCERES-CHÁVEZ; M. L. ESCOBAR*. *Fac Psicol, UNAM.*

4:00 G54 **233.16** Nonlinear decoding and asymmetric representation of neuronal input information by CaMKIIα and calcineurin. H. FUJII*; M. INOUE; H. OKUNO; Y. SANO; S. TAKEMOTO-KIMURA; K. KITAMURA; M. KANO; H. BITO. *Dept of Neurochemistry, Univ. of Tokyo Sch. of Med., Dept of Neurophysiology, Univ. of Tokyo Sch. of Med.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 G55 **233.17** *In vitro* reconstitution of an erasable memory switch of CaMKII. H. URAKUBO*; S. ISHII; S. KURODA. *Kyoto U, U Tokyo.*

2:00 G56 **233.18** PKA-dependent activation of presynaptically silent cortical synapses using a fluorescent probe. T. HIKIMA*; G. ARBUTHNOTT. *Okinawa Inst. of Sci. and Technol. Grad. Univ.*

3:00 G57 **233.19** Thyroid hormone signaling through the phosphatidylinositol 3-kinase acutely potentiates Schaffer collateral synapses on postnatal mouse hippocampal CA1 neurons through a presynaptic mechanism. F. MIZUNO; B. GLOSS; E. SCAPPINI; C. ERXLEBEN; D. L. ARMSTRONG*. *NIEHS NIH.*

4:00 G58 **233.20** Molecular network models that can account for long-term plasticity and memory. S. J. JALIL*; T. C. SACKTOR; H. Z. SHOUVAL. *The Univ. of Texas Med. Sch. At Houston, SUNY Downstate Med. Ctr.*

1:00 G59 **233.21** Conditional knockout of the PKC/PKMζ gene and acute translational blockade by PKMζ antisense show new synthesis of PKMζ protein is crucial for LTP and long-term memory. P. TSOKAS*; C. HSIEH; E. J. C. WALLACE; L. PAN; B. R. HARTLEY; A. TCHEREPANOV; A. I. HERNANDEZ; J. E. COTTRELL; A. A. FENTON; T. C. SACKTOR. *SUNY Downstate Med. Center, Brooklyn, NY, SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr., New York Univ., SUNY Downstate Med. Ctr.*

2:00 G60 **233.22** Compensation by PKCι/λ activation and PKMι/λ formation in PKMζ knock-out mice. Y. YAO*; P. TSOKAS; D. JOTHIANANDAN; A. TCHEREPANOV; P. VAN DE NES; T. SACKTOR. *SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr.*

3:00 H1 **233.23** Persistent increases of PKMζ correlate with the retention and duration of spatial long-term memory. C. HSIEH*; P. TSOKAS; B. R. HARTLEY; P. A. SERRANO; A. A. FENTON; T. C. SACKTOR. *SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr., CUNY Hunter Col., Nork York Univ., SUNY Downstate Med. Ctr.*

4:00 H2 **233.24** Long-term potentiation at hilar mossy cell to dentate granule cell synapses. Y. HASHIMOTODANI*; A. E. CHÁVEZ; P. E. CASTILLO. *Albert Einstein Col. of Med.*

1:00 H3 **233.25** Inositol polyphosphate multikinase enhances immediately early gene transcription via regulation of CBP. R. XU*; B. D. PAUL; R. TYAGI; F. RAO; A. B. KHAN; D. J. BLECH; P. GUHA; N. SEN; S. H. SNYDER. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

2:00 H4 **233.26** Effect of impaired neurotransmitter release on Long Term Potentiation. S. NADKARNI*; A. MADUSKAR; H. LEVINE. *Indian Inst. of Sci. Educ. and Res. Pune, Indian Inst. of Sci. Educ. and Research, Pune, Rice Univ.*

POSTER

234. Oscillations and Synchrony: EEG and LFP Studies

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 H5 **234.01** Humor associated mirthful laughter enhances brain EEG power spectral density gamma wave band activity (31-40Hz). L. S. BERK*; P. PAWAR; C. ALPHONSO; N. REKAPALLI; R. ARORA; P. CAVALCANTI. *Schl Allied Hlth. Prof, Loma Linda Univ.*

2:00 H6 **234.02** Method for event-based cross-frequency coupling analysis of neural oscillations. D. DVORAK*; B. RADWAN; A. A. FENTON. *SUNY Downstate Med. Ctr., New York Univ.*

3:00 H7 **234.03** Event-based cross-frequency coupling of neural oscillations in the rodent hippocampus during cognitive events. A. A. FENTON*; D. DVORAK; B. RADWAN. *New York Univ., SUNY Downstate Med. Ctr., SUNY Downstate Med. Ctr. / NYU-Poly.*

4:00 H8 **234.04** Gamma events and functional connectivity between brain areas. A. BRAGIN*; F. KHEIRI; J. ENGEL, Jr. *David Geffen Sch. Med. UCLA.*

1:00 H9-DP3 **234.05** Different mechanisms underlying feedforward and feedback influences on low and high frequency oscillations in visual attention. M. BAUER*; K. J. FRISTON; R. J. DOLAN. *UCL.*

2:00 H10 **234.06** Activation of thalamic δ-subunit containing $GABA_A$ receptors by hypnotics supports cortical deactivation *in vivo*. L. MESBAH-OSKUI*; B. A. ORSER; R. L. HORNER. *Univ. of Toronto, Sunnybrook Hlth. Sci. Ctr., Univ. of Toronto.*

3:00 H11 **234.07** Electrophysiologic correlates of resting-state fMRI networks. C. D. HACKER*; A. SNYDER; M. PAHWA; M. SHARMA; D. BUNDY; A. DAITCH; N. SZRAMA; K. BANDT; T. MITCHELL; M. CORBETTA; E. LEUTHARDT. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

4:00 H12 **234.08** Enhanced cortical gamma oscillations and cognitive impairment by selective disruption of inhibition within parvalbumin-networks. T. K. HENSCH*; H. H. LEE. *Harvard Univ., Boston Children's Hosp.*

1:00 H13 **234.09** Frontal field stimulation promotes cortico-hippocampal interactions during slow-wave activity. A. GREENBERG*; T. WOLANSKY; C. T. DICKSON. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

2:00 H14 **234.10** Dynamical features of interictal spikes in the human brain undergoing anesthesia. G. A. CECCHI*; L. ALONSO; M. MAGNASCO; A. PROEKT. *IBM Res., The Rockefeller Univ.*

3:00 H15 **234.11** Slow (DC) Potentials of the living human brain. E. SPECKMANN*; A. GORJI. *Univ. Munster, Epilepsy Res. Ctr.*

4:00 H16 **234.12** The effect of ventral tegmental area (VTA) stimulation on slow wave sleep Up-Down states in the prefrontal cortex of anaesthetized rats. S. GRETENKORD*; S. E. GARTSIDE; A. REES; M. A. WHITTINGTON; F. E. N. LEBEAU. *Newcastle Univ., Univ. of York.*

1:00 H17 **234.13** Orchestrating the resting brain: Coupling of fast and slow rhythms bypassing alpha. A. V. MEDVEDEV*. *Georgetown Univ. Med. Ctr.*

2:00 H18 **234.14** Dose-dependent effects of isoflurane on large-scale intra-cortical communication in the ferret. F. FISCHER; F. PIEPER*; E. GALINDO-LEON; G. ENGLER; A. K. ENGEL. *Univ. Med. Ctr. Hamburg-Eppendorf.*

3:00 H19 **234.15** ▲ Electrophysiological correlates of cortical programs during planned and unplanned terminations of movements in humans with different levels of impulsivity and hyperactivity. A. B. TREMBACH*; D. SAMARSKIY; V. TOLOKONIKOVA; T. PONOMAREVA; O. KLEIMENOVA. *Univ. of Physical Educ.*

4:00 H20 **234.16** Effective connectivity mapping in humans using hybrid electrocorticographic recordings. Y. WANG; A. KORZENIEWSKA*; F. HIGGEN; N. E. CRONE. *Johns Hopkins Univ., Johns Hopkins Univ., Univ. Med. Ctr. Hamburg-Eppendorf, Johns Hopkins Univ.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 H21 **234.17** Quantifying the effects of transcranial magnetic stimulation via computational modeling & electrophysiology. B. D. GOODWIN*; C. R. BUTSON. *Marquette, Med. Col. of Wisconsin.*

2:00 H22 **234.18** ▲ Synchronized brain activity rebound during REM sleep after selective REM sleep deprivation in man. R. SIFUENTES-ORTEGA; Y. DEL RÍO-PORTILLA; A. ROSALES-LAGARDE; O. A. ROJAS-RAMOS; M. CORSI-CABRERA*. *Univ. Nacional Autonoma Mexico, UAEM.*

3:00 H23 **234.19** ▲ Acute role of corpus callosum on cortical synchrony in humans: Intraoperative electrocorticographic recording before and after callosotomy. O. A. ROJAS RAMOS*; R. ONDARZA; J. RAMOS-LOYO; I. Y. DEL RÍO-PORTILLA; D. TREJO-MARTÍNEZ; M. A. GUEVARA; M. CORSI-CABRERA. *UNAM, Inst. Nacional de Neurología y Neurocirugía MVS, Inst. de Neurociencias, Univ. de Guadalajara, Hosp. Gen. de México Dr. Eduardo Liceaga.*

4:00 H24 **234.20** Considerations regarding the interpretation of standardized low resolution brain electromagnetic tomography source analysis. J. A. CORTES*; J. D. CAHILL; M. RANGANATHAN; R. A. SEWELL; D. C. D'SOUZA; P. D. SKOSNIK. *Yale Univ.*

1:00 H25 **234.21** Knowledge-based query and classification of event-related potentials: The neural electromagnetic ontology (nemo) portal. N. A. DUNN*; G. FRISHKOFF; R. M. FRANK. *Univ. of Oregon, Georgia State Univ., Univ. of Oregon.*

2:00 H26 **234.22** Atypical patterns of EEG activity and functional connectivity in children with autism. N. N. LUCAS*; M. PINEDA; N. AARON JONES. *Florida Atlantic Univ.*

3:00 H27 **234.23** Efficacy of tACS depends on endogenous oscillatory power. T. NEULING; S. RACH; C. S. HERRMANN*. *Oldenburg Univ., Oldenburg Univ.*

POSTER

235. Network Interactions: Oscillations and Synchrony II

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 H28 **235.01** The decoding of emotional information: Insights from intracranial recordings in humans. A. CHRISTEN*; L. TAMARIT; L. SPINELLI; M. SEECK; D. GRANDJEAN. *Univ. of Geneva, Swiss Ctr. for Affective Sci., Hôpitaux Universitaires Genevois.*

2:00 H29 **235.02** Excess gamma-band activity in schizophrenia interferes with auditory cortical processing. L. HAYRYNEN*; J. P. HAMM; S. R. SPONHEIM; B. A. CLEMENTZ. *Univ. of Georgia, Minneapolis VA Hlth. Care Syst., Univ. of Minnesota.*

3:00 H30 **235.03** Population coding with higher order correlations. N. CAYCO GAJIC*; J. ZYLBERBERG; E. SHEA-BROWN. *Univ. of Washington, Univ. of Washington.*

4:00 H31 **235.04** Refractory periods following spontaneous ripples create opportunities for cortical feedback. D. J. KANAK*; G. M. ROSE; P. R. PATRYLO. *Southern Illinois Sch. of Med., Ctr. for Integrated Res. in Cognitive & Neural Sci.*

1:00 H32 **235.05** Functionally stable hippocampal network: Role of inhibition vs. short-term plasticity. A. M. HUMMOS*; S. NAIR. *Univ. of Missouri.*

2:00 H33 **235.06** Ventral postrhinal cortex: A strong inhibitory network in the absence of parvalbumin-expressing interneurons. A. U. SUGDEN*; S. L. PATRICK; A. ANAND; R. D. BURWELL; B. W. CONNORS. *Brown Univ.*

3:00 H34 **235.07** Transcranial alternating current stimulation (tACS) induces state switching in interconnected cortical networks. F. FROHLICH*; K. M. KUTCHKO. *Univ. of North Carolina.*

4:00 H35 **235.08** Optogenetic dissection of cortical neuromodulation with transcranial current stimulation. S. L. SCHMIDT*; F. FROHLICH. *Univ. of North Carolina.*

1:00 H36 **235.09** ● Targeting cortical oscillations and cognition with transcranial alternating current stimulation (tACS) in humans. M. R. BOYLE*; A. L. CORDLE; W. L. GORIS; K. K. SELLERS; B. V. VAUGHN; J. H. GILMORE; F. FROHLICH. *Univ. of North Carolina At Chapel Hill.*

2:00 I1 **235.10** Modulations and plasticity of oscillation amplitudes and synchronization in human amblyopia. H. JULKU; S. ROUHINEN; J. MÄKELÄ; H. HUTTUNEN; E. CASTRÉN; J. M. PALVA; S. PALVA*. *Neurosci. Ctr., BioMag Lab.*

3:00 I2 **235.11** ● Patterns of oscillatory phase relations in human electrocorticography can be explained by temporal delays. R. VAN DER MEIJ*; J. JACOBS; E. MARIS. *Radboud Univ. Nijmegen, Drexel Univ.*

4:00 I3 **235.12** Simultaneous Ca-imaging and electrophysiology of human cortical population activity *in vitro.* B. P. KEREKES*; A. KASZÁS; K. TÓTH; B. CHIOVINI; G. SZALAY; D. PÁLFY; K. SPITZER; I. ULBERT; L. WITTNER; B. RÓZS. *PPKE ITK, Inst. of Cognitive Neurosci. and Psychology, Res. Ctr. for Natural Sciences, Hungarian Acad. of Sci., Hungarian Acad. of Sci. Inst. of Exptl. Med.*

1:00 I4 **235.13** Theta oscillations link local and interlaminar communication within the Human neocortex. R. J. MCGINN; C. L. FLOREZ; V. LUKANKIN; J. A. DIAN; S. R. SUGUMAR; P. L. CARLEN; L. ZHANG*; T. A. VALIANTE. *Univ. of Toronto, Toronto Western Res. Institute, Univ. Hlth. Network, U of Toronto, Univ. of Toronto.*

2:00 I5 **235.14** Specific reorganization of theta-phase related gamma activity in experimental models of temporal lobe epilepsy. M. VALDERRAMA*; J. BROTONS-MAS; F. LAURENT; L. MENENDEZ DE LA PRIDA. *Univ. of Los Andes, Inst. Cajal, CSIC.*

3:00 I6 **235.15** Entropy fluctuations in MEG signals above 150 Hz are similar to low frequency oscillations. S. E. ROBINSON*; A. J. MANDELL; R. COPPOLA. *NIH/NIMH, Univ. of California San Diego.*

4:00 I7 **235.16** Role of 5HT2 and 5HT3 receptors in the generation of epileptiform activity: *in vitro, in silico* and *in vivo* studies. P. A. PUZEREY*; R. FERNÁNDEZ GALÁN. *Case Western Reserve Univ.*

1:00 I8 **235.17** Effect of coupling frequency on information sharing. C. A. STETSON*. *Caltech.*

POSTER

236. Brain Wellness

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 I9 **236.01** Effects of Nelumbinis Semen on the sleep-wake cycle through the regulation of GABA and 5-HT system in rats. H. PARK*; H. SHIM; Y. AHN; H. JEONG; Y. CHOE; H. BAE; S. CHUNG; I. SHIM. *Kyung Hee Univ., Kyung Hee Univ., Kyung Hee Univ., Kyung Hee Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 I10 **236.02** ▲ Severe malnourishment modifies the circadian cycle of DRD1 and DRD2 genes in the dorsal striatum and ventral tegmental area of the rat. C. LÓPEZ-OVIEDO; A. BOYZO-MONTES DE OCA; H. N. MORENO-SANDOVAL; J. AYALA-DÁVILA; L. C. SÁNCHEZ-PEÑA; B. A. LEÓN-CHÁVEZ; D. MARTÍNEZ-FONG; J. A. GONZALEZ-BARRIOS*. *Hosp Regional Octubre, ISSSTE, CINVESTAV, CINVESTAV, Benemerita Univ. Autonoma De Puebla.*

3:00 I11 **236.03** ● Effect of lisdexamfetamine in a rat model of binge-eating disorder. S. P. VICKERS*; D. J. HEAL; D. HACKETT; P. H. HUTSON. *Renasci Ltd, Shire Pharmaceuticals Limited, Shire Develop. Inc.*

4:00 I12 **236.04** Iron content of choroid plexus may increase with age. T. A. TISHLER*; A. B. ARONSON; P. H. LU; P. VILLABLANCA; J. P. FINN; G. BARTZOKIS. *UCLA, Washington Univ. Sch. of Med., UCLA, UCLA, UCLA.*

1:00 I13 **236.05** Obesity gene NEGR1 is associated with white matter integrity differently in young and old adults. E. L. DENNIS*; M. BRASKIE; N. WARSTADT; N. JAHANSHAD; O. KOHANNIM; T. NIR; K. MCMAHON; G. DE ZUBICARAY; G. MONTGOMERY; N. MARTIN; A. TOGA; M. WRIGHT; P. THOMPSON. *Lab. of Neuroimaging, UCLA, Univ. of Queensland, Univ. of Queensland, Queensland Inst. of Med. Res.*

2:00 I14 **236.06** ● Theta-phase gamma-amplitude coupling detects EEG abnormalities in persons with internet addiction. J. LEE*; S. CHOI; S. KIM. *Gangnam Eulji Hosp., Gongju Natl. Hosp.*

3:00 I15 **236.07** Restorative effect of wooden materials on electrophysiological responses in humans. S. MATSUMOTO*; T. OKAMOTO; A. YAMAMOTO; K. OHNUKI; T. MITSUDO; H. ISHIKAWA; R. FUKUDA; K. FUJITA; T. NAKASHIMA; Y. YAMADA; J. NAGANO; S. YASUNARI; Y. WATANABE; N. FUJIMOTO; K. SHIMIZU. *Kyushu Univ., Kyushu Univ., Kinki Univ., Kyushu Univ., Fukuoka Women's Univ., Natl. Inst. of Advanced Industrial Sci. and Technol., Yamaguchi Univ., Kyushu Univ., Yasunari Corp., Trywood Company, Limited.*

4:00 I16 **236.08** ▲ Incidence and impact of depression in blast versus non-blast traumatic brain injury in a veteran population. G. V. WINDMILLER*; K. PANIZZON; S. JOO; R. WALLIS. *VA Greater Los Angeles Healthcare Syst., VA Greater Los Angeles Healthcare Sysytem.*

1:00 I17 **236.09** Exercise has positive effects on the capillaries in the white matter of aged brain. Y. TANG*; C. HUANG; X. QIU; L. CHEN; L. ZHANG; F. CHAO. *Chongqing Med. Univ.*

2:00 I18 **236.10** The daily fix: Habitual caffeine doses improve performance in attention and executive functions irrespective of food intake. J. L. MARIANO*; J. C. F. GALDURÓZ; S. POMPÉIA. *Univ. Federal De Sao Paulo.*

POSTER

237. Abeta Toxicity

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 J1 **237.01** The role of a nuclear localized 82 kDa choline acetyltransferase in cell stress and the epigenome. W. WINICK-NG*; R. J. RYLETT. *Western Univ.*

2:00 J2 **237.02** Arctic mutant Aβ modifies CHRNA7's functions through specific binding. Y. JU*; T. ASAHI; N. SAWAMURA. *Sch. of Advanced Sci. & Engineering, Waseda Univ., Advanced Sci. & Engin., ASMeW.*

3:00 J3 **237.03** The role of caspases in axonal degeneration and synapse loss. E. JACOTOT*; B. DELEGLISE; B. LASSUS; V. SOUBEYRE; E. DUPLUS; J. PEYRIN; B. BRUGG. *Inserm, CNRS.*

4:00 J4 **237.04** ● Synaptic activation or amyloid beta oligomers promote tau trafficking to spines and an interaction with actin. M. FRANDEMICHE; S. DE SERRANO; T. RUSH; M. DOLLMEYER; A. ELIE; I. ARNAL; F. LANTÉ; A. BUISSON*. *Grenoble Inst. Neurosciences, Gin-U836-Université J. Fourier Grenoble 1.*

1:00 J5 **237.05** Examining the relationship between the Warburg effect and amyloid-beta resistance in a transgenic Alzheimer's disease mouse model. R. C. CUMMING*; R. A. HARRIS; J. T. NEWINGTON; R. BARTHA. *Univ. of Western Ontario, Schulich Sch. of Med. & Dentistry, Univ. of Western Ontario.*

2:00 J6 **237.06** ● Mechanism of internalization of Abeta oligomer-receptor complexes. K. MOZZONI*; C. REHAK; C. SILKY; N. J. IZZO; R. YURKO; H. SAFFERSTEIN; G. RISHTON; S. M. CATALANO. *Cognition Therapeut.*

3:00 J7 **237.07** **Withdrawn.**

4:00 J8 **237.08** Spreading of amyloidosis to unaffected areas of the hippocampus studied *in vivo* by nervous tissue transplantation. M. SADALLAH; F. TEMPIA*. *N.I.C.O. - Neurosci. Inst. Cavalieri Ottolenghi, Univ. of Torino.*

1:00 J9 **237.09** Exosomes can bind to and neutralize the activity of plasticity-disrupting Aβ assemblies *in vivo.* Y. SON; J. JUNG; T. JEONG; J. LEE; S. KIM; S. LEE; S. LEE; H. JO; J. KIM*. *Pohang Univ. of Sci. & Technol. (POSTECH).*

2:00 J10 **237.10** P2XR activation contribute to acute Aβ excitotoxicity through an ATP-dependent mechanism. F. SÁEZ-ORELLANA*; A. DIBARRART; P. A. GODOY; C. A. RIVERA-VERA; J. GUZMAN; L. G. AGUAYO; J. FUENTEALBA. *Univ. De Concepción.*

3:00 J11 **237.11** Lipocalin 2 is produced in response to amyloid beta. S. D. MESQUITA; A. C. FERREIRA; A. M. FALCAO; J. C. SOUSA; T. G. OLIVEIRA; M. CORREIA-NEVES; N. SOUSA; F. MARQUES; J. A. PALHA*. *Life and Hlth. Sci. Res. Inst. (ICVS), Sch. of Hlth. Sciences, U.*

4:00 J12 **237.12** APP and Prion interaction with Aβ. C. M. PETERS*; M. ESPINOZA; C. OPAZO; L. G. AGUAYO. *Univ. De Concepcion, Univ. of Melbourne.*

1:00 J13 **237.13** Staged spatial correspondence between patterns of amyloid-β plaque deposition and intrinsic functional connectivity in prodromal Alzheimer's disease. C. SORG*; J. GÖTTLER; T. GRIMMER; M. MÜHLAU; A. KURZ; H. FÖRSTL; C. ZIMMER; A. WOHLSCHLÄGER; V. RIEDL; N. MYERS. *Technische Univ. München, Univ. of Oxford.*

2:00 J14 **237.14** Beta amyloid, transmitter release and free radicals in cultured avian retinal cells. S. J. WALAS; B. STIEFEL; C. COUGHLIN; M. PAZ; S. SAJJAD; D. GRAY*. *Simmons Col., Simmons Col.*

3:00 J15 **237.15** **Unable to Attend.** The Aβ oligomer count in CSF is a biomarker for Alzheimer's disease. D. WILLBOLD*; L. WANG-DIETRICH; O. BANNACH; E. BIRKMANN; S. A. FUNKE. *Forschungszentrum Jülich Gmbh, Heinrich-Heine-Universität Düsseldorf, Forschungszentrum Jülich GmbH.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

238. Alzheimer's Disease: Neuroinflammation and Immune Mechanisms I

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 J16 **238.01** Real-time *in vivo* imaging reveals the ability of monocytes to clear vascular amyloid beta. J. MICHAUD*; M. BELLAVANCE; P. PRÉFONTAINE; S. RIVEST. *CHUL Res. Ctr.*

2:00 J17 **238.02** Analysis of TREM2 expression in APPPS1 transgenic mouse brain. A. ARRANZ; B. G. DE STROOPER*. *VIB Ctr. for the Biol. of Dis., Ctr. for Human Genet. and LIND, KU Leuven, K.U.Leuven.*

3:00 J18 **238.03** IL-1β mRNA expression, circadian rhythms, and nest building in an hAPP/ApoE4 late-onset mouse model of Alzheimer's disease. P. BOZZELLI*; J. J. GRAYBEAL; L. L. GRAYBEAL; D. N. COX; J. M. FLINN. *George Mason Univ.*

4:00 K1 **238.04** Human RAGE expressed in endothelial cells exacerbates blood-brain barrier dysfunction. S. V. REGE*; E. HATCH; M. WANG; N. K. CHUQUI; Z. ZHAO; A. P. SAGARE; B. V. ZLOKOVIC. *USC, Univ. of Rochester.*

1:00 K2 **238.05** Microglial responses to disease progression in human Alzheimer's hippocampus. A. GUTIERREZ*; E. SANCHEZ-MEJIAS; V. NAVARRO; R. SANCHEZ-VARO; S. JIMENEZ; L. TRUJILLO-ESTRADA; M. VIZUETE; J. DAVILA; J. VITORICA. *Univ. of Malaga / CIBERNED, Univ. of Seville / CIBERNED / IBIS.*

2:00 K3 **238.06** Prominent loss of adaptive immune responses to Aβ in perimenopausal women who carry an apoe-ε4 allele. A. N. BEGUM*; C. CUNHA; E. R. ROSARIO; J. SCOLNICK; D. W. ETHELL. *Western Univ. of Hlth. Sci., Casa Colina Hosp. for Rehabilitative Med., Arrowhead Regional Med. Ctr.*

3:00 K4 **238.07** Determining the effects of neuroinflammatory phenotypes on amyloid deposition in APP/PS1 transgenic mice. E. M. WEEKMAN*; T. L. SUDDUTH; A. GREENSTEIN; D. M. WILCOCK. *Univ. of Kentucky.*

4:00 K5 **238.08** MyD88 and the inflammasome are both involved in the activation of microglia by amyloid-β(1-42) protofibrils. S. TERRILL*; M. MOHAN; M. R. NICHOLS. *Univ. of Missouri St. Louis.*

1:00 K6 **238.09** Participation of Scavenger Receptor A (SR-A) in the inflammatory activation pattern of glial cells in an Alzheimer's disease new transgenic model. R. VON BERNHARDI*; F. CORNEJO; G. RAMIREZ. *Pontificia Univ. Catolica De Chile, Fac Med.*

2:00 K7 **238.10** Early increase in TNF-alpha in a prodromal model of Alzheimer's disease. C. CAVANAGH*; R. QUIRION; T. WONG. *Douglas Mental Hlth. Univ. Inst.*

3:00 K8 **238.11** An acute lps-induced inflammatory response in a diabetic model of Alzheimer's disease. A. S. MURTISHAW*; C. F. HEANEY; J. W. KINNEY; M. M. BOLTON. *UNLV Neurosci. Doctoral Student, UNLV.*

4:00 K9 **238.12** Epigenetic regulation of aging microglia in Alzheimer's disease and neurodegeneration. E. M. YORK*; A. PETIT; A. CHOU; A. J. ROSKAMS. *Univ. of British Columbia, Univ. of British Columbia, Intl. Collaboration On Repair Discoveries, Univ. of British Columbia.*

1:00 K10 **238.13** Characterization of caspase-4 in inflammation and Alzheimer's disease. Y. KAJIWARA; N. DORR; G. VOLOUDAKIS; M. GAMA-SOSA; G. ELDER; D. L. DICKSTEIN; O. BOZDAGI*; J. D. BUXBAUM. *Icahn Sch. of Med. At Mount Sinai.*

2:00 K11 **238.14** Glatiramer acetate induces cerebral infiltration of osteopontin-expressing monocytes that facilitate Aβ clearance. A. RENTSENDORJ*; B. SALUMBIDES; J. SHEYN; Y. KORONYO; D. LOPES; D. FUCHS; A. WOLF; K. L. BLACK; M. KORONYO-HAMAOUI. *Cedars Sinai Med. Ctr., Cedars Sinai Med. Ctr., Cedars Sinai Med. Ctr.*

3:00 K12 **238.15** Diet-induced obesity and low testosterone interact to promote Alzheimer- and diabetes-related pathologies: A central role of inflammation. J. LEE*; H. WRIGHT; C. J. PIKE. *USC, USC.*

4:00 L1 **238.16** ▲ Role of oxidative status, metabolic syndrome, and associated factors in neurodegenerative diseases with a higher prevalence, of central Mexico State. J. G. GONZALEZ-LOYOLA; J. C. SOLÍS-S; P. GARCÍA-SOLÍS; L. ROBLES-OSORIO; N. CAMACHO-CALDERON; J. AVILA-MORALES; M. E. VILLAGRAN-HERRERA; B. E. CASTRO-MONTES; F. J. DAVILA-ESQUIVEL; G. Z. LELO DE LARREA; G. GONZALEZ-PEREZ; M. LIÑAN-FERNANDEZ; J. RICARDO-GARCELL; M. RAMOS-GOMEZ; M. ESPINO-CORTES; M. E. C. CETINA-GARCIA; L. M. VELAZQUEZ-PEREZ; L. GARCIA-GALVEZ; M. L. MARTINEZ-MARTINEZ; R. F. RODRIGUEZ-VALDEZ; H. L. HERNANDEZ MONTIEL*. *Facultad de Medicina, UAQ, Inst. de Neurobiología, UNAM, Facultad de Quimica, UAQ, Ctr. Estatal de Salud Mental, SESEQ, Inst. Mexicano del Seguro Social, Ctr. de Neurociencias de Cuba.*

1:00 L2 **238.17** Effects of TLR4 overexpression and deficiency on neuropathology in a mouse model of Alzheimer's disease. J. KOU; J. YANG; J. D. FLORES; D. MALO; K. FUKUCHI*. *Univ. of IL Col. of Med. At Peoria, Univ. of IL Col. of Med. At Peoria, McGill Univ.*

POSTER

239. Alzheimer's Disease: Neuroinflammation and Immune Mechanisms II

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 L3 **239.01** A role for thrombin as a mediator of cerebrovascular abnormalities in Alzheimer's disease and diabetes. P. GRAMMAS*; A. SANCHEZ; J. LUO; X. YIN. *Texas Tech. Univ. Hlth. Sci. Ctr.*

2:00 L4 **239.02** Intracerebral microinjection of interleukin-4/interleukin-13 reduces β-amyloid accumulation in the ipsilateral side and improves cognitive deficits in young APP23 mice. K. KAWAHARA*; M. SUENOBU; Y. SUGIMOTO; H. NAKAYAMA. *Fac. of Life Sci. Kumamoto Univ.*

3:00 L5 **239.03** Nuclear receptor agonists increase Aβ mediated microglial phagocytosis and influence microglial activation status in a mouse model of AD. J. SAVAGE*; G. E. LANDRETH. *Case Western Reserve Univ.*

4:00 L6 **239.04** LXR and PPARγ agonists modify inflammation differentially in a mouse model of Alzheimer's disease. R. SKERRETT*; M. P. PELLEGRINO; G. E. LANDRETH. *Case Western Reserve Univ., Univ. of Campinas.*

1:00 L7 **239.05** Utilization of an *in vitro* model of the blood-brain barrier to study a potential Alzheimer's disease therapeutic. D. WUEST*; K. H. LEE. *Univ. of Delaware/ Delaware Biotech Inst.*

2:00 L8 **239.06** Chronic lipopolysaccharide increases neuroinflammation, reduces plaque pathology and induces cognitive deficits in a mouse model of Alzheimer's disease. D. Y. LO*; P. E. SAWCHENKO. *Salk Inst., Coe Col.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 L9 **239.07** The role of TLR4 signaling in the mechanism of action of bexarotene for the treatment of Alzheimer's disease pathology. A. W. CORONA*; M. M. LAKNER; K. FUKUCHI; G. E. LANDRETH. *Case Western Reserve Univ., Univ. of Illinois Col. of Med. at Peoria.*

4:00 L10 **239.08** The effects of poly i:c on hippocampal amyloid-beta and cognition. M. K. WEINTRAUB*; D. KRANJAC; M. J. EIMERBRINK; B. T. VINSON; J. PATEL; W. SUMMERS; B. WOMBLE; G. W. BOEHM; M. J. CHUMLEY. *Texas Christian Univ., Texas Christian Univ.*

1:00 L11 **239.09** Network analysis of transcriptional changes after two anti-inflammatory pathway manipulations in the PSAPP mouse reveals Alzheimer disease neuroinflammatory targets. K. R. DOTY*; M. GUILLOT-SESTIER; D. GATE; T. TOWN. *Zilkha Neurogenetic Institute, Keck Sch. of Med. of USC, Cedars-Sinai Med. Ctr.*

2:00 L12 **239.10** ● Chronic systemic inhibition of interleukin-1 reduces spatial learning deficits in a mouse model of Alzheimer's disease without affecting amyloid plaque burden. S. N. RESCH*; J. LUTCHMAN; J. JOHNSON; A. ROE; T. MOY; K. SINGH; A. PEREZ; C. NAVAS; S. D. CROLL. *Neuropsychology Doctoral Subprogram, The Grad. Ctr. of CUNY, Regeneron Pharmaceuticals, CUNY Queens Col.*

3:00 L13 **239.11** Upregulation of glutamate transporter 1 (GLT1) by ceftriaxone ameliorates Alzheimer's disease-associated cognitive impairment in 3xTg-AD mice. J. M. ZUMKEHR*; R. MEDEIROS; D. CHENG; Y. YANG; M. KITAZAWA. *UC Merced, Univ. of California, Irvine, Tufts Univ., Univ. of California, Merced.*

4:00 L14 **239.12** Role of the pro-inflammatory transcription factor, NFATc2, in regulating Aβ stimulated microgliosis. A. GHATAK*; K. L. PUIG; C. K. COMBS. *Univ. of North Dakota.*

1:00 L15 **239.13** Reelin immunoreactivity in neuritic varicosities in the human hippocampus. T. F. NOTTER*; I. KNUESEL. *Univ. of Zurich Inst. of Pharmacol. and Toxicology.*

2:00 L16 **239.14** Reduction of Alzheimer's disease related neuroinflammation induced by trans-stillbenes. N. O. SOLBERG*; J. VIGIL; V. SEVERNS; L. O. SILLERUD. *UCSD, Univ. of New Mexico, Univ. of New Mexico.*

3:00 L17 **239.15** The immune inhibition effect of DcR3 on modulating microglia activation phenotypes, neuronal plasticity and cognitive functions in Alzheimer's disease. Y. LIU*; I. CHENG. *Natl. Yang-Ming University/ Inst. of Brain Sci., Natl. Yang-Ming University/ Brain Res. Ctr.*

4:00 L18 **239.16** The effects of estradiol on lipopolysaccharide-induced neuroinflammation in rat mixed glial cultures. J. WANG*; C. CHEN; S. CHEN. *Dept Nursing (Basic Med. Sci), Hungkuang Univ., Li-Shin Hosp.*

1:00 M1 **239.17** ● Role of TNF in modulation of immune cell traffic to the CNS by peripheral inflammation in a mouse model of Alzheimer's disease. K. P. MACPHERSON*; M. TANSEY. *Emory Univ., Emory Univ. Sch. of Med.*

POSTER

240. Parkinson's Disease: Circuits and Cells

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 M2 **240.01** Dendritic spine pathology in the primary motor cortex (M1) of MPTP-treated parkinsonian monkeys. Y. SMITH*; R. M. VILLALBA; J. F. PARE; T. WICHMANN. *Yerkes Res. Ctr., Udall Ctr. Excel. For Parkinson's Dis. and Dept. of Neurol., Yerkes Resch Crt. and Udall Ctr. of Excellence for Parkinson's Disease, Emory Univ.*

2:00 M3 **240.02** Preferential loss of thalamostriatal over corticostriatal glutamatergic synapses in parkinsonian monkeys. R. M. VILLALBA*; T. WICHMANN; Y. SMITH. *Yerkes Resch Ctr. and Udall Ctr. of Excelence For Parkinson's Disease, Emory Un, Yerkes Res. Ctr., Udall Ctr. Excel. for Parkinson's Dis. and Dept. of Neurol.*

3:00 M4 **240.03** Quantification of neuronal calcium transients *in vivo* in a mouse model of neurodegeneration using FLIM. Y. YANG*; H. UHLIROVA; S. L. GRATIY; P. A. SAISAN; L. REZNICHENKO; E. S. NORHEIM; Q. CHENG; K. L. WELDY; S. SAKADŽIć; J. M. CONNER; J. CUI; T. GONZÁLEZ; D. A. BOAS; G. T. EINEVOLL; A. M. DALE; E. MASLIAH; A. DEVOR. *Univ. of California San Diego, UCSD, UCSD, Norwegian Univ. of Life Sci., Martinos Ctr. for Biomed. Imaging, MGH, Harvard Med. Sch.*

4:00 M5 **240.04** Synaptic transmission at cortico-subthalamic synapses. L. FROUX; S. MORIN; B. BIOULAC; J. BAUFRETON; J. LANCIEGO; A. I. TAUPIGNON*. *CNRS Univ. Bordeaux Segalen UMR 5293, CIMA.*

1:00 M6 **240.05** L-DOPA-induced dyskinesia is associated with enhanced H2 histamine excitation of striatal cholinergic interneurons. S. A. LIM*; R. XIA; L. WON; Y. DING; D. S. MCGEHEE; U. J. KANG. *Univ. of Chicago.*

2:00 M7 **240.06** Dopamine D3 receptor prevents D1 receptor stimulation of [3H]GABA release in substantia nigra pars reticulata of hemiparkinsonian dyskinetic rats. S. ALBARRAN*; A. ÁVALOS-FUENTES; F. PAZ-BERMÚDEZ; D. ERLIJ; J. ACEVES; B. FLORÁN*. *Cinvestav, Cinvestav, Sunny Downstate Med. Ctr.*

3:00 M8 **240.07** Alpha-synuclein aggregation begins at presynaptic terminals. K. SPINELLI*; J. TAYLOR; V. OSTERBERG; C. MESHUL; V. UNNI. *Oregon Hlth. & Sci. Univ.*

4:00 M9 **240.08** Effect of subthalamic stimulation on nonmotor symptoms of advanced Parkinson disease. Y. MIYAGI*; T. OKAMOTO; K. SAMURA; Y. OHYAGI; H. HONDA. *Kaizuka Hosp., Kyushu Univ., Fukuoka Univ.*

1:00 M10 **240.09** Aging exacerbates motor deficits in a parkinsonian mouse model. T. A. ANSAH*; T. NAYYAR. *Meharry Med. Col.*

2:00 M11 **240.10** L-DOPA-induced dyskinesia involve structures outside the basal ganglia. M. BASTIDE*; G. CHARRON; S. DOVERO; C. E. GROSS; P. FERNAGUT; E. BEZARD. *Instute of Neurodegenerative Dis.*

3:00 M12 **240.11** Nicotinic receptor drugs reduce L-dopa-induced dyskinesias in a nonhuman primate model of Parkinson's disease. M. QUIK*; D. ZHANG; D. SOHN; F. I. CARROLL; M. DECKER. *SRI Intl., RTI Intl., AbbVie, Inc.*

4:00 M13 **240.12** Rats that self-administer methamphetamine show Parkinson's disease-like inflammation and α-synuclein pathology in the brain and colon. T. NAPIER*; S. M. KOUSIK; L. P. KELLY; S. M. GRAVES; A. L. PERSONS. *Rush Univ. Med. Ctr.*

1:00 M14 **240.13** Methamphetamine self-administration reduces dopamine in the nigrostriatal and mesolimbic pathways in association with ischemia suggesting methamphetamine abuse as a risk factor for Parkinson's disease. S. M. KOUSIK*; T. C. NAPIER; P. M. CARVEY. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.*

2:00 M15 **240.14** The anti-dyskinetic effects of serotonin transporter blockade are partially reversed by 5-HT_{1A} receptor antagonism. M. CONTI*; P. SINGH; C. BISHOP. *Binghamton Univ.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 M16 **240.15** L-dopa induced dyskinesias in Parkinsonian mice. B. J. HOFFER*; L. OLSON; C. BACKMAN. *NIDA/NIH, Karolinska Inst., Intramural Res. Program, NIDA.*

4:00 M17 **240.16** ● The interplay between LRRK2 and the striatal DA system influences behavior in genetic animal models. M. VOLTA*; D. A. BECCANO-KELLY; L. N. MUNSIE; P. CHOU; S. BERGERON; S. CATALDI; I. TATARNIKOV; K. CO; L. TAPIA; H. MELROSE; A. J. MILNERWOOD; M. J. FARRER. *Univ. of British Columbia, Mayo Clin., Univ. of British Columbia.*

1:00 M18 **240.17** ● Early synaptic alterations in LRRK2 G2019S Knock-In mice. D. A. BECCANO-KELLY*; M. VOLTA; L. MUNSIE; I. TATARNIKOV; P. CHOU; K. CO; S. BERGERON; L. TAPIA; H. L. MELROSE; L. A. RAYMOND; A. J. MILNERWOOD; M. J. FARRER. *Univ. of British Columbia, Mayo Clin., Univ. of British Columbia, Univ. of British Columbia.*

2:00 N1 **240.18** Morphological adaptations of 'direct pathway' spiny projection neurons in experimental parkinsonism and L-DOPA-induced dyskinesia. T. FIEBLINGER; C. ALCACER; L. ZANETTI; S. M. GRAVES; J. L. PLOTKIN; D. J. SURMEIER; M. A. CENCI*. *Lund Univ., Northwestern Univ. Feinberg Sch. of Med.*

POSTER

241. Parkinson's Disease: Circuit Mechanisms

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 N2 **241.01** Characterization of long-term motor deficits in the 6-OHDA model of Parkinson's disease in the common marmoset. M. SANTANA*; T. PALMER; H. SIMPLÍCIO; P. PETERSSON; M. NICOLELIS; R. FUENTES. *Federal Univ. of Rio Grande Do Norte (UFRN), Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Natal, Brazil;, Lund Univ., Lund Univ., Neuroengineering Grad Program, Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Natal, Brazil;, Fac. of Hlth. Sciences, State Univ. of Rio Grande do Norte, Mossoró, Brazil, Neurosurgical Team, NEURON, Natal, Brazil, Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

2:00 N3 **241.02** Distribution and morphology of calcium-binding neurons following chronic multielectrode implants. M. A. FREIRE*; E. MORYA; J. FABER; J. R. SANTOS; N. A. M. LEMOS; M. A. L. NICOLELIS. *ELS-IINN, Neuroengineering Grad Program, ELS-IINN, UNIFESP, UNILA, UFS, Duke Univ., Duke Univ., Duke Univ.*

3:00 N4 **241.03** Effects of spinal cord stimulation on the neuronal population dynamic of the cortico-basal ganglia-thalamic circuit in a primate model of Parkinson´s disease. P. HALJE*; M. SANTANA; H. SIMPLÍCIO; M. NICOLELIS; R. FUENTES; P. PETERSSON. *Lund Univ., Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal (ELS-IINN), Federal Univ. of Rio Grande do Norte, State Univ. of Rio Grande do Norte, NEURON, Duke Univ.*

4:00 N5 **241.04** Functional coupling in the cortico-basal ganglia-thalamic loop in a primate model of Parkinson's disease. U. RICHTER*; P. HALJE; M. SANTANA; M. NICOLELIS; R. FUENTES; P. PETERSSON. *Lund University, Neuronano Res. Ctr., Lund Univ., Lund Univ., Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Psycobiology, Federal Univ. of Rio Grande do Norte, Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

1:00 N6 **241.05** Effects of spinal cord stimulation on the neuronal firing rate and synchronization of the cortico-basal ganglia-thalamic circuit in a primate model of Parkinson´s disease. R. A. FUENTES*; P. PETERSSON; M. SANTANA; H. SIMPLICIO; T. PALMER; M. A. L. NICOLELIS. *Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Lund Universtiy, Lund Universtiy, Lund Universtiy, Lund Universtiy, Federal Univ. of Rio Grande do Norte, State Univ. of Rio Grande do Norte, NEURON, Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

2:00 N7 **241.06** A method for characterization of activity patterns in cortico-basal ganglia-thalamic structures related to reaching in a primate model of Parkinson's disease. P. PETERSSON*; P. HALJE; M. SANTANA; R. FUENTES; M. A. L. NICOLELIS. *Lund Univ., Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Biomed. Engin, Ctr. for Neuroengineering,, Dept. of Neurobiol, Dept. of Psychology and Neurosci., Duke Univ.*

3:00 N8 **241.07** Chronic Spinal Cord Stimulation alleviates motor asymmetry in an Alpha-synuclein animal model of Parkinson disease. I. BRYS*; B. SCHNEIDER; M. M. FREIRE; M. NICOLELIS; R. FUENTES. *Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Federal Univ. of Rio Grande do Norte, École Polytechnique Federale de Lausanne, Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

4:00 N9 **241.08** Expression efficiency of rAAV6 and rAAV9 serotypes in the ventral midbrain of common marmosets. T. FAGGION VINHOLO*; M. B. SANTANA; M. F. P. ARAÚJO; H. SIMPLÍCIO; B. SCHNEIDER; R. FUENTES; M. A. L. NICOLELIS; M. A. M. FREIRE. *Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Duke Univ., Federal Univ. of Rio Grande Do Norte, State Univ. of Rio Grande do Norte, Neuron, École Polytechnique Federale de Lausanne, Duke Univ., Duke Univ., Duke Univ.*

1:00 N10 **241.09** Analysis of local field potentials in a common marmoset (Callithrix jacchus) during rest and locomotion. M. F. P. ARAUJO*; R. C. MOIOLI; F. L. BRASIL; R. FUENTES; M. A. L. NICOLELIS. *Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Biomed. Engineering, Duke Universiy, Ctr. for Neuroengineering, Duke Univ., Duke Univ., Duke Univ.*

2:00 N11 **241.10** Prefrontal dopamine is essential for temporal control. K. L. PARKER*; N. S. NARAYANAN. *Univ. of Iowa.*

3:00 N12 **241.11** Dorsal raphe serotonergic neurons and levodopa-induced dyskinesia in Parkinson's disease. V. CERPA*; A. D. MILLER; G. B. RICHERSON; N. S. NARAYANAN. *Univ. of Iowa.*

4:00 N13 **241.12** Subthalamic nucleus deep brain stimulation induces differential functional activation of the motor, associative, and basal ganglia circuit in a nonhuman primate. P. H. MIN*; S. HAN; E. ROSS; M. MARSH; J. JEONG; S. CHANG; C. D. BLAHA; K. BENNET; K. H. LEE. *Mayo Clin., Ilsan Paik Hospital, Col. of Medicine, Inje Univ., Kosin Univ. Col. of Med., Univ. of Memphis, Mayo Clin.*

1:00 N14 **241.13** Dopamine depletion results in altered frequency dependent striatal responses to cortical stimulation. V. R. JAYASINGHE*; D. R. THOMASES; A. R. WEST; K. Y. TSENG. *Rosalind Franklin Univ. of Med. and Sci., Rosalind Franklin Univ. of Med. and Sci., Rosalind Franklin Univ. of Med. and Sci.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 N15 **241.14** Characterization of four stages of neural changes in parkinsonism using cross-frequency-coupling analysis of subthalamic nucleus local field potentials. T. H. SANDERS*; A. DEVERGNAS; M. A. CLEMENTS; T. WICHMANN. *Georgia Inst. of Technol., Udall Ctr. of Excellence in PD Res., Dept. of Neurology, Emory Univ.*

3:00 N16 **241.15** Causal role of striatal cholinergic system in generating parkinsonian beta oscillations. X. GU*; M. MCCARTHY; N. KOPELL; X. HAN. *Boston Univ., Boston Univ.*

4:00 N17 **241.16** Deep brain stimulation control of beta oscillations through the indirect pathway: A computational study. M. M. MCCARTHY*; N. KOPELL. *Boston Univ.*

1:00 N18 **241.17** A direct relationship between parkinsonian rest tremor and oscillatory coupling in a distributed subcortico-cortical network. J. HIRSCHMANN*; C. J. HARTMANN; M. BUTZ; N. HOOGENBOOM; T. E. ÖZKURT; S. ELBEN; J. VESPER; L. WOJTECKI; A. SCHNITZLER. *Heinrich Heine Univ., Univ. Col., Middle East Tech. Univ.*

2:00 O1 **241.18** ● Translational analysis platform for neuromotor disease research and therapeutic validation: Application to Parkinson's disease. I. VOLLENWEIDER; Y. LANG; D. BORTON; D. W. KO*; Q. LI; G. COURTINE; E. BEZARD. *Swiss Federal Inst. of Technol. (EPFL), Inst. of Neurodegenerative Dis., Motac Neurosci. Ltd.*

3:00 O2 **241.19** Modulation of primary motor cortex neurotransmitter signaling by dopamine lesion and L-DOPA therapy using a rat model of Parkinson's disease. D. LINDENBACH*; A. GOLDENBERG; C. OSTOCK; M. CONTI; C. BISHOP. *Binghamton Univ.*

4:00 O3 **241.20** Cerebellar recruitment by subthalamic nucleus deep brain stimulation for Parkinson's disease. A. C. SUTTON*; J. G. PILITSIS; D. S. SHIN. *Albany Med. Col., Albany Med. Ctr.*

1:00 O4 **241.21** Human intraoperative fMRI during STN DBS for Parkinson's disease reveals BOLD activation in motor circuitry. E. KNIGHT*; K. M. WELKER; J. HUSTON, III; J. P. FELMLEE; D. A. CLAYTON; I. KIM; K. E. BENNET; C. D. BLAHA; K. H. LEE; S. CHANG. *Mayo Clin., Univ. of Memphis.*

2:00 O5 **241.22** A model of how transmission delays inside the basal ganglia proper cause beta-band oscillations in Parkinson's desease. B. GIRARD*; J. LIÉNARD. *CNRS / UPMC, CNRS / UPMC, Washington State Univ.*

3:00 O6 **241.23** Mapping DNA double-strand breaks in human and mouse brains. G. TORRES*; J. R. LEHESTE. *NYIT COM, NYIT COM.*

4:00 O7 **241.24** ● Corticostriatal synapses on striatopallidal neurons are lost in a mouse model of Parkinson's disease and restored in mice exhibiting L-DOPA-induced dyskinesia. S. M. GRAVES*; L. E. SEBEL; J. L. PLOTKIN; T. FIEBLINGER; M. A. CENCI; D. J. SURMEIER. *Northwestern Univ., Lund Univ.*

1:00 O8 **241.25** Striatal projection neurons of the D1 and D2 types are differentially altered in a mice model of Parkinson's disease. M. G. SÁNCHEZ; C. BORIES; D. GAGNON; Y. DE KONINCK; J. M. BEAULIEU; A. PARENT; M. PARENT*. *Laval Univ.*

2:00 O9 **241.26** Disturbed development and stability of dendritic spines of adult-born olfactory bulb neurons in A30P α-synuclein mice. J. NEUNER*; S. V. OVSEPIAN; S. FILSER; M. DOROSTKAR; J. HERMS. *Ludwig-Maximilians-University, DZNE.*

3:00 O10 **241.27** Physiological changes in the PPN in a normal and parkinsonian non-human primate during rest and gait. H. M. HUDSON*; A. T. CONNOLLY; J. ZHANG; K. B. BAKER; J. L. VITEK. *Univ. of Minnesota, Univ. of Minnesota.*

4:00 O11 **241.28** Low frequency stimulation of pedunculopontine nucleus modulates hyperactivity of basal ganglia in the parkinsonian rat models. E. PARK*; I. SONG; D. JANG; I. KIM. *Hanyang Univ., Osong Med. Innovation Fndn.*

1:00 O12 **241.29** Selective inactivation of FosB expressing neurons in the juxtacapsular BST decreases L-Dopa induced dyskinesia. P. FERNAGUT*; M. BASTIDE; C. GLANGETAS; C. GROSS; F. GEORGES; E. BEZARD. *Inst. Des Maladies Neurodegeneratives, Univ. de Bordeaux,, CNRS, Inst. Interdisciplinaire de Neurosciences, UMR 5297.*

POSTER

242. Huntington's Disease: Mechanisms I

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 P1 **242.01** Impact of phosphodiesterase 9A and 10A inhibition on aberrant cortically-evoked spike activity in the striatum of transgenic rats that model Huntington's disease. A. R. WEST*; S. CHAKROBORTY; A. M. DEC; C. J. SCHMIDT. *Rosalind Franklin Univ. Med. Sci., Pfizer Inc.*

2:00 P2 **242.02** ● Evaluation of MP-10, a PDE10 inhibitor, on BACHD transgenic rats using dual recording of single units in Globus Pallidus and Subthalamic nucleus. S. ZHONG; G. TOMBAUGH; L. MRZLJAK; V. BEAUMONT; C. SCHMIDT; M. ZALESKA; C. CHANG; A. GHAVAMI*. *Psychogenics, CHDI Management/Foundation, Pfizer.*

3:00 P3 **242.03** Selecting a proof of concept tool to test the effects of TrkB activation in Huntington's disease models. G. MCALLISTER; D. TODD; M. WALL; I. GOWERS; S. PENROSE; G. WISHART; I. MUNOZ-SANJUAN; C. DOMINGUEZ; J. ARJOMAND; M. LAMERS; J. TURNEY; R. GRISHANIN; J. PAULSEN; J. C. LIN; G. FLYNN; S. FRATANTONI; D. FISCHER; S. DIJKSTRA; J. WITYAK; J. A. BARD*. *BioFocus, CHDI, CHDI, Pfizer, Pfizer, Galapagos, BioFocus.*

4:00 P4 **242.04** Atg4b-dependent autophagic flux alleviates Huntington's disease progression. C. C. PROENCA*; N. STOEHR; M. BERNHARD; T. BOUWMEESTER; I. GALIMBERTI. *Novartis Pharma NIBR.*

1:00 P5 **242.05** Cerebral cortex develops normally in mice with early embryonic deletion of Huntington's from cortical pyramidal neurons. I. DRAGATSIS*; P. DIETRICH; Y. DENG; N. DEL MAR; J. ROGERS; M. J. IRUDAYAM; K. R. JONES; A. REINER. *Univ. of Tennessee/Health Sci. Ctr., Univ. of Tennessee/Health Sci. Ctr., Univ. of Colorado.*

2:00 P6 **242.06** Post-translational modifications of Huntington's protein in HD brain. T. RATOVITSKI*; E. CHIGHLADZE; A. ZAVALA; E. WATKIN; N. ARBEZ; R. CHAERKADY; X. WANG; O. PLETNIKOVA; J. C. TRANCOSO; R. N. COLE; C. A. ROSS. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

3:00 P7 **242.07** Pattern of premanifest loss of thalamostriatal and corticostriatal input to striatal projection neuron types in Q140 Huntington's disease knock-in mice. Y. DENG*; T. WONG; A. REINER. *Univ. of Tennessee HSC.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 P8 **242.08** Blockade of the Protein Kinase A pathway improves cognitive deficits in a Huntington's disease mouse model. S. Z. TYEBJI; A. SAAVEDRA; A. GIRALT; J. ALBERCH; E. PEREZ-NAVARRO*. *Dept. Cell Biology, Immunol. and Neurosciences, Univ. of Barcelona, IDIBAPS, CIBERNED.*

1:00 P9 **242.09** ▲ Dysregulated behavioral modulation of striatal neuronal processing in the YAC128 mouse model of Huntington's disease. E. S. ZHANG; S. J. BARTON; G. V. REBEC*. *Indiana Univ.*

2:00 P10 **242.10** Role of cortical mutant huntingtin in the aberrant behavioral modulation of striatal neuronal activity in the BACHD model of Huntington´s disease. A. M. ESTRADA SANCHEZ*; C. BURROUGHS; S. CHEN; S. J. BARTON; S. CAVALIERE; X. W. YANG; G. V. REBEC. *Indiana Univ., Univ. of California.*

3:00 P11 **242.11** Turnover of mutant huntingtin in different neuronal compartments. T. ZHAO*; Y. HONG; S. LI; X. LI. *Emory Univ.*

4:00 P12 **242.12** Expression of mutant Huntington's in mouse brain astrocytes suppresses BDNF secretion. Y. HONG*; T. ZHAO; X. LI; S. LI. *Emory Univ.*

1:00 P13 **242.13** Altered dopamine release dynamics correlate with behavioral alterations in the YAC128 mouse model of Huntington's disease. K. D. BUNNER*; A. M. ESTRADA SANCHEZ; G. V. REBEC. *Indiana Univ.*

2:00 P14 **242.14** Altered neuronal activity *in-vivo* in subthalamic nucleus but not globus pallidus in the heterozygous z_Q175 mouse model of Huntington's disease. H. LIN; S. ZHONG; S. BENT; H. S. HAIN*; V. BEAUMONT; A. GHAVAMI. *PsychoGenics, PsychoGenics, CHDI Mgmt. / Fndn. Inc.*

3:00 P15 **242.15** Characterization of endogenous BDNF isoforms, secretion and signaling in a mouse model of Huntington's disease. Q. MA; B. L. HEMPSTEAD*. *Weill Cornell Med. Col.*

4:00 P16 **242.16** Ubiquilin suppresses accumulation of mutant Huntingtin and motor deficits in HD mice. C. L. HETTINGER; G. DONG; Y. LIU; L. LU; M. J. WATT; G. L. FORSTER; X. WANG; H. WANG*. *Univ. of South Dakota Sanford Sch. of Med., Dalhousie Univ., Sun Yat-sen Univ.*

1:00 P17 **242.17** ● Utilization of an In-Cell Western™ assay to evaluate putative SIRT1 pathway modulators: PARP inhibition leads to increased SIRT1 activity in an oxidative stress paradigm. D. F. FISCHER*; J. BATE; S. DOWLER; V. LAZARI; S. DIJKSTRA; G. MCALLISTER; J. WITYAK; I. MUNOZ-SANJUAN. *BioFocus / Galapagos, BioFocus, Galapagos, CHDI Management/CHDI Fndn.*

2:00 P18 **242.18** ● To fold or not to fold? Novel methods for identification of modifiers of mutant huntingtin conformation. R. KUHN*; A. WEISS; M. VERANI; L. AZZOLINI; V. FODALE; H. PARK; A. CARICASOLE. *Redbark Gmbh, IRBM PROMIDIS, CHDI Fndn.*

3:00 Q1 **242.19** The effects of resveratrol on mitochondrial function mechanism in Huntington's disease model mice. J. JEON*; H. SEO. *Hanyang Univ.*

4:00 Q2 **242.20** ● Neuronal autophagy in Huntington's disease. A. WEISS*; R. BOGGIO; V. FODALE; A. CARICASOLE; D. MARCHIONINI; R. KUHN. *IRBM PROMIDIS, IRBM PROMIDIS, CHDI.*

1:00 Q3 **242.21** Impairment of parkin-mediated mitophagy in Huntington's disease. M. SACINO; N. LAMBRINO; C. ERIE; M. LU; J. WEI*. *Florida Atlantic Univ.*

2:00 Q4 **242.22** Bidirectional control of PSD-95 clustering by non-pathogenic Huntington's. M. P. PARSONS*; R. KANG; L. A. RAYMOND. *Univ. of British Columbia.*

3:00 Q5 **242.23** Characterization of autophagy in a Huntington's disease mouse model. J. LIM*; Z. YUE. *Mount Sinai Sch. of Med.*

4:00 Q6 **242.24** Region-specific effects of Huntington's overexpression on the palmitoylation and clustering of PSD-95. C. BUREN*; M. P. PARSONS; R. KANG; L. WANG; L. A. RAYMOND. *The Univ. of British Columbia.*

1:00 Q7 **242.25** Differential effects of a neuroprotective selenium dose on selenoprotein transcripts levels in brains of wild-type and transgenic Huntington's disease mice. Z. LU*; J. CHEN; E. MARKS; J. MOLINE; M. RAISBECK; L. F. BARROWS; I. VOLITAKIS; A. BUSH; J. H. FOX. *Univ. of Wyoming, Univ. of Wyoming, Mental Hlth. Res. Institute, Univ. of Melbourne.*

2:00 Q8 **242.26** Golgi protein ACBD3 mediates neurotoxicity associated with Huntington's disease. J. I. SBODIO*; B. D. PAUL; C. E. MACHAMER; S. H. SNYDER. *Johns Hopkins Univ.*

3:00 Q9 **242.27** Altered Rpt6 proteasome function in S. cerevisiae. E. M. MARQUEZ-LONA*. *UCSD.*

4:00 Q10 **242.28** ▲ L-12/15 lipoxygenase (L-12/15 LO) null mutant mice show enhanced motor behavioral deficits and increased moribundity in response to 3-nitroproprionic (3-NP) acid treatment. R. C. AKUMUO*; Y. YANG; Y. HE; S. J. HEWETT. *Syracuse Univ.*

1:00 Q11 **242.29** Mutant huntingtin transcriptionally represses the cholesterol biosynthetic pathway in striatal astrocytes. A. BENRAISS*; A. CORNWELL; D. CHANDLER-MILITELLO; M. J. TONER; S. WANG; S. A. GOLDMAN. *Univ. of Rochester Med. Ctr.*

2:00 Q12 **242.30** Role of vesicular glycolysis in fast axonal transport. M. V. HINCKELMANN*; D. ZALA; C. NIEHAGE; B. HOFLACK; F. SAUDOU. *Inserm U1005, CNRS UMR3306, Inst. Curie, Biotech. Ctr.*

POSTER

243. Motor Neuron Disease: Mechanisms I

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 Q13 **243.01** ● C1q induction and activation of the complement pathway do not contribute to ALS toxicity in mutant SOD1 mice. C. S. LOBSIGER*; S. BOILLEE; C. D. POZNIAK; A. M. KHAN; M. MCALONIS-DOWNES; J. W. LEWCOCK; D. W. CLEVELAND. *Salpetriere Hopital, ICM, UCSD, Ludwig Inst., Neurodegeneration Laboratories, Genentech, Vanderbilt Univ.*

2:00 Q14 **243.02** The c-Abl tyrosine kinase is activated in amyotrophic lateral sclerosis motor neurons and participates in transgenic SOD1(G86R) mice neurodegeneration. A. MARTINEZ*; C. VALLS; C. HETZ; A. R. ALVAREZ. *Pontificia Univ. Catolica de Chile, Pontificia Univ. Catolica de Chile, Univ. de Chile.*

3:00 Q15 **243.03** Ischemia-like conditions *in vitro* damage rat spinal cord via complex cell death mechanisms. E. BIANCHETTI; M. MLADINIC; A. NISTRI*. *SISSA, Univ. of Rijeka.*

4:00 Q16 **243.04** TDP-43 and translational control in neurodegenerative disorders. K. MILLER*; K. DUNCAN. *Ctr. For Mol. Neurobiology, Hamburg (ZMNH), ZMNH.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 Q17 **243.05** Motor function deficits identified in motor neurons of the spinal cords of mice infected with West Nile virus and other encephalitic viruses using optogenetic photoactivation. J. D. MORREY*; H. WANG; V. SIDDHARTHAN; J. O. HALL; K. K. KESLER. *Utah State Univ.*

2:00 Q18 **243.06** The ALS disease associated mutant TDP-43 impairs mitochondrial dynamics and function in motor neurons. W. WANG*; L. LI; W. LIN; X. WANG. *Case Western Reserve Univ.*

3:00 R1 **243.07** Translational profiling in a TDP-43 transgenic mouse model of amyotrophic lateral sclerosis. L. MACNAIR*; B. ZHAO; D. MILETIC; M. GHANI; E. ROGAEVA; J. KEITH; L. ZINMAN; J. JULIEN; J. ROBERTSON. *Univ. of Toronto, Ctr. for Res. in Neurodegenerative Dis., Sunnybrook Hlth. Sci. Ctr., Laval Univ., Ctr. de Recherche du Ctr. Hospitalier Universitaire de Quebec.*

4:00 R2 **243.08** The involvement of Notch in the non-cell autonomous pathogenesis of amyotrophic lateral sclerosis. A. H. NONNEMAN; T. PHILIPS; C. EYKENS; R. R. VANDENBERGHE*; W. ROBBERECHT. *Lab. of Neurobiology, Vesalius Res. Centre, VIB, Leuven Res. Inst. for Neurosci. and Dis. (LIND), Univ. of Leuven (KU Leuven), 3000 Leuven, Belgium, Johns Hopkins University, Sch. of Medicine, Brain Sci. Inst., Univ. Hosp Gasthuisberg, Neurology, Univ. Hosp. Leuven.*

1:00 R3 **243.09** Cytoprotective effect of Rho guanine nucleotide exchange factor (RGNEF). K. CHEUNG; C. DROPPELMANN; K. VOLKENING; I. CAMERON; S. H. PASTERNAK*; M. J. STRONG. *Univ. of Western Ontario.*

2:00 R4 **243.10** ● Reduced levels of a glycosylated species of the insulinoma-associated protein 2 (IA2) in ALS spinal cord: Evidence of dysregulated endosomal trafficking in ALS. R. P. BOWSER*; D. M. RIASCOS. *Barrow Neurolog. Inst.*

3:00 R5 **243.11** Dysregulation of neurofilament composition underlies disease-causing SOD1-mediated motor neuron degeneration. H. CHEN*; K. QIAN; Z. DU; J. CAO; L. W. BLACKBOURN, IV; A. ERRIGO; H. CINDY; Y. YIN; J. LU; M. AYALA; S. ZHANG. *Waisman Ctr., Waisman center.*

4:00 R6 **243.12** Serum ferritin is elevated in amyotrophic lateral sclerosis patients. J. R. CONNOR*; X. W. SU; S. L. CLARDY; R. J. LAWSON; H. E. STEPHENS; Z. SIMMONS. *Penn State Col. of Med., Penn State Col. of Med., Northeast ALS Consortium.*

1:00 R7 **243.13** Phenotypic analysis of neurodegeneration induced by codon optimized wild type TDP-43 in a *Drosophila* model of ALS. T. YUSUFF*; S. CHATTERJEE; G. R. JACKSON. *Univ. of Texas Med. Br.*

2:00 R8 **243.14** Cognitive phenotype in a mouse model of Familial Dysautonomia: Spatial memory. S. POWELL; F. LEFCORT; J. L. WIESELER*; A. BABCOCK. *Montana State Univ., Montana State Univ., Montana State Univ.*

3:00 R9 **243.15** Pathogenic FUS mutations retain spliceosomal snRNPs in the cytoplasm. V. GERBINO; A. MIRRA; N. CANU*; M. CARRÌ; M. COZZOLINO; T. ACHSEL. *Univ. di Roma Tor Vergata, Fondazione Santa Lucia, Univ. di Roma La Sapienza, Univ. of Tor Vergata, Inst. of Translational Pharmacology, CNR, KU Leuven.*

4:00 R10 **243.16** ● Lis1 and Ndel1 regulate dynein-dependent mitochondria traffic in mature neurons. L. SHI*; J. PANDEY; D. SMITH. *Univ. of South Carolina, Harvard Med. Sch.*

1:00 S1 **243.17** Study of mitochondria quality control in the G93A-SOD1 mouse model for ALS. G. M. PALOMO; J. MAGRANE; B. SIDER; G. MANFREDI*. *Weill Med. Col. Cornell Univ.*

2:00 S2 **243.18** Studying the function of Fused in sarcoma (FUS) at the presynaptic terminal of the neuromuscular junction: Implications for FUS-mediated ALS. K. KRISHNAMURTHY*; M. SHAHIDULLAH; I. LEVITAN; D. TROTTI; P. PASINELLI. *THOMAS JEFFERSON UNIVERSITY HOSPITAL FOR NEUROSCIENCE.*

3:00 S3 **243.19** Muscle fiber-type regulation of maintenance of neuromuscular junction innervation. C. MILLIGAN*; J. STRUPE; C. MANSFIELD; M. ROBINSON; R. OPPENHEIM; A. ZAIA RODRIGUES; R. KUDO. *Wake Forest Sch. Med., Wake Forest Sch. of Med.*

4:00 S4 **243.20** G93A mutated SOD1-linked murine ALS produces abnormal exocytotic release of glutamate. C. USAI*; M. MILANESE; T. BONIFACINO; F. ONOFRI; L. MUSAZZI; F. BENFENATI; M. POPOLI; G. BONANNO. *Natl. Rese Council, Univ. of Genoa, Univ. of Milan, Italian Inst. Technol., Ctr. of Excellence for Neurodegenerative Dis., Ctr. of Excellence for Biomed. Res.*

1:00 S5 **243.21** The RNA binding protein RBM45 associates with nuclear stress bodies during cellular stress events. M. A. COLLINS*; R. RICE; R. BOWSER. *Univ. of Pittsburgh, Barrow Neurolog. Inst.*

2:00 S6 **243.22** Broker genes in the skeletal muscle of SOD1G93A amyotrophic lateral sclerosis mouse model. J. R. MAXIMINO*; G. P. OLIVEIRA; M. MASCHIETTO; D. M. CARRARO; E. ZANOTELI; G. CHADI. *Univ. of Sao Paulo - Sch. of Med., AC Camargo Hosp.*

3:00 S7 **243.23** Early gene expression changes in astrocytes from SOD1 Amyotrophic Lateral Sclerosis mouse model. G. P. OLIVEIRA*; J. R. MAXIMINO; A. F. CARVALHO; D. M. CARRARO; G. CHADI. *Univ. of Sao Paulo Sch. of Med., Intl. Ctr. of Res. and Teaching, AC Camargo Hosp.*

4:00 S8 **243.24** Propagation of misfolded SOD1 in mouse models of ALS; Implications for mechanism of disease pathogenesis. M. A. O'NEILL*; L. I. GRAD; A. PETIT; A. J. ROSKAMS; N. R. CASHMAN. *Univ. of British Columbia.*

1:00 S9 **243.25** FUS regulates alternative splicing patterns of Mapt by cooperating with PSF/SFPQ: a novel link between FUS and Tau in the pathogenesis of ALS and FTLD. S. ISHIGAKI*; Y. FUJIOKA; T. UDAGAWA; D. HONDA; M. KATSUNO; G. SOBUE. *Nagoya Univ. Grad. Sch. of Med.*

2:00 S10 **243.26** Comparison of action potential evoked dendritic calcium entry in SOD1G93A and non-transgenic spinal motor neurons. K. A. QUINLAN*; J. B. LAMANO; J. SAMUELS; D. L. WOKOSIN; C. J. HECKMAN. *Northwestern Univ. Feinberg Sch. of Med.*

3:00 S11 **243.27** Non-proteolytic ubiquitination of glycogen phosphorylase by the malin-laforin complex regulates glycogen metabolism. M. S. GENTRY*; V. DUKHANDE; B. PAASCH. *Univ. of Kentucky, Univ. of Kentucky.*

4:00 S12 **243.28** Bringing light on to the corticospinal motor neurons: Mehr licht bitte. P. OZDINLER*. *Northwestern University, Feinberg Sch. of Med.*

1:00 S13 **243.29** *In vitro* characterization of RBM45, a new RNA-binding protein implicated in ALS and FTLD. Y. L. LI*; R. BOWSER. *Barrow Neurolog. Inst., Barrow Neurolog. Inst.*

2:00 S14 **243.30** **Withdrawn.**

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

244. Developmental Disorders Associated with Prenatal Events

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 S15 **244.01** Xenopus tadpole model for valproate-induced neurodevelopmental disorders. E. J. JAMES*; J. GU; C. RAMIREZ; A. S. KHAKHALIN; C. D. AIZENMAN. *Brown Univ.*

2:00 S16 **244.02** Attenuation of inhibitory synaptic input of hippocampal neural activity following exposure to valproic acid: A voltage-sensitive dye imaging study. T. TOMINAGA*; Y. TOMINAGA; B. JULIANDI; K. IGARASHI; K. TANEMURA; J. KANNO; K. NAKASHIMA. *Tokushima Bunri Univ., Grad Sch. Med. Sci, Kyushu Univ., NIHS, Grad Sch. Agr. Sci, Tohoku Univ.*

3:00 S17 **244.03** ▲ Maternal infection perturbs fetal brain development through IL-6 signaling. Z. YAN*; W. WU; E. Y. HSIAO; P. H. PATTERSON. *Caltech.*

4:00 S18 **244.04** Modelling autism spectrum disorder through maternal immune activation in mice. I. C. XUAN; A. J. RAMSEY; D. R. HAMPSON*. *Univ. of Toronto, Univ. of Toronto, Univ. of Toronto.*

1:00 T1 **244.05** Analysis of hippocampal and cortical cytokines in animal model of autism induced by prenatal exposure to valproic acid. D. BARONIO*; V. BAMBINI-JUNIOR; D. A. MENDES-DA-CRUZ; K. C. GROKOSKI; J. M. SORRENTINO; M. DUTRA; G. M. DE MELO; W. SAVINO; C. GOTTFRIED; R. RIESGO. *Hosp. De Clínicas De Porto Alegre - UFRGS, UFRGS, Fundação Oswaldo Cruz - IOC.*

2:00 T2 **244.06** ▲ Early life disruption of serotonin alters microglia expression in adult rodents. A. T. GARGIULO; R. D. DARLING; Y. LU; M. A. LEA; K. L. SIMPSON; J. C. SHIH; K. CHEN; I. A. PAUL; R. C. LIN*. *Millsaps Col., Univ. Mississippi Med. Ctr., Univ. Mississippi Med. Ctr., USC, USC.*

3:00 T3 **244.07** Group B streptococcus inflammatory response induced during gestation leads to perinatal injuries and subsequent behavioral impairments in male offspring mimicking autistic features. J. BERGERON*; M. ALLARD; J. DESLAURIERS; S. GRIGNON; P. SARRET; L. FORTIER; C. POYART; G. SÉBIRE. *Univ. De Sherbrooke, Univ. de Sherbrooke, Ctr. national de référence des streptocoques de groupe B.*

4:00 T4 **244.08** Effects of prenatal exposure to valproic acid on hypothalamic and limbic structures in the rat. Y. D. GILLES; N. L. POWELL; T. T. DANG; E. K. POLSTON*. *Howard Univ. Col. of Med.*

1:00 T5 **244.09** Valproate application to rat fetus encourages the development of Purkinje cell dendrites and network formation in cerebellar development. S. YOSHIDA*; H. MURAMOTO; M. TANOZAKI; N. HOZUMI; Y. FUETA; Y. SEKINO. *Toyohashi Univ. Technol., Toyohashi Univ. Technol., Univ. Occup. and Envrn. Hlth., Natl. Inst. of Hlth. Sci.*

2:00 T6 **244.10** Effects of prenatal stress, variable prenatal diet, and maternal genotype on offspring in an animal model of autism spectrum disorders. K. L. JONES*; M. WILL; K. FRITSCHE; P. HECHT; J. BROWNING; M. TILLEY; D. Q. BEVERSDORF. *Univ. of California - Davis, Univ. of Missouri, Central Methodist Univ.*

3:00 T7 **244.11** Effects of a prenatal vitamin d deficiency on offspring behavior in mice. A. M. BELENCHIA*; K. L. JONES; M. WILL; D. Q. BEVERSDORF; V. VIEIRA-POTTER; Z. FETTER; C. A. PETERSON. *Univ. of Missouri, Univ. of California-Davis.*

4:00 T8 **244.12** Aminopeptidase P1 deficiency causes neurodevelopmental disorders in mice. Y. BAE*; S. YOON; M. MUN; K. PARK; W. KIM; J. CHA; M. KIM. *Seoul Natl. Univ. Col. of Med.*

1:00 T9 **244.13** β-catenin transcriptionally regulates Brn2 and control early brain overgrowth. H. BELINSON*; J. NAKATANI; R. Y. BIRNBAUM; M. BERSHTEYN; B. BABINEAU; R. J. MCEVILLY; J. LONG; K. WILLERT; N. AHITUV; M. G. ROSENFELD; A. WYNSHAW-BORIS. *Inst. For Human Genetics, UCSF, Inst. For Human Genetics, UCSF, Howard Hughes Med. Institute, UCSD, Inst. for Regenerative Medicine, UCSD, Case Western Reserve Univ. Sch. of Med.*

2:00 T10 **244.14** Specific gene and prenatal stress interaction in the development of autism spectrum disorder. P. HECHT*; M. TILLEY; K. JONES; D. Q. BEVERSDORF. *Univ. of Missouri, Central Methodist Univ., Univ. of California-Davis, Univ. of Missouri.*

3:00 T11 **244.15** Benzyl butyl phthalate (bbp) treatment induces alterations in estrogen responses, synaptic plasticity regulation, and neuronal development in rodents. D. DEBARTOLO; S. JAYATILAKA; E. GALLAGHER; M. ROSE; A. J. BETZ*; E. EMERY. *Quinnipiac Univ., Quinnipiac Univ.*

4:00 T12 **244.16** ▲ Neurotoxic effects of pre-weaning benzyl butyl phthalate (BBP) exposure on dendritic parameters in the rat. S. K. FOLEY*; R. F. MERVIS; K. SHAKFEH; P. HANNA; S. BHASKAR; D. PHAM; D. DEBARTOLO; A. BETZ. *Neurostructural Res. Labs, Univ. of South Florida, Univ. of South Florida Morsani Col. of Med., Quinnipiac Univ.*

1:00 T13 **244.17** Prostaglandin E2 alters the differentiation of neuroectodermal stem cells. C. WONG*; H. LI; D. A. CRAWFORD. *York Univ., York Univ.*

2:00 T14 **244.18** Prenatal domoic acid exposure as an animal model of autism: Selective disruption of male pro-social behavior. B. D. MILLS*; H. PEARCE; J. TURNER; D. ZULOAGA; J. RABER; G. LAHVIS. *Oregon Hlth. & Sci. Univ.*

3:00 T15 **244.19** Effects of prostaglandin-E2 on expression of wnt-target genes during critical period of mouse brain development. R. BHOGAL*; C. WONG; H. LI; D. CRAWFORD. *York Univ., York Univ.*

POSTER

245. Speech, Language, and Signaling in Autism

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 T16 **245.01** Development of a versatile enrichment analysis tool reveals associations between the maternal brain and mental health disorders, including autism. B. E. EISINGER*; M. C. SAUL; T. M. DRIESSEN; S. C. GAMMIE. *Univ. of Wisconsin-Madison.*

2:00 T17 **245.02** Opposing effects on structural brain volumes and cortical thickness in 16p11.2 deletion and duplication carriers. A. Y. QURESHI*; S. MUELLER; A. Z. SNYDER; J. P. OWEN; W. K. CHUNG; E. H. SHERR; R. L. BUCKNER; . AND THE SIMONS VIP CONSORTIUM. *Harvard Univ., Washington Univ. in St. Louis, Univ. of California, San Fancisco, Columbia Univ., Mass Gen Hosp., Simons Fndn.*

3:00 T18 **245.03** White matter microstructure in children with 16p11.2 deletions. J. P. OWEN; P. BUKSHPUN; N. POJMAN; T. THIEU; W. CHUNG; E. H. SHERR; P. MUKHERJEE*; . FOR THE SIMONS VIP CONSORTIUM. *Univ. of California - San Francisco, Columbia Univ., Univ. of California - San Francisco, Simons Fndn.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 U1 **245.04** Phenotypic variation in mouse autism models for delay eyeblink conditioning, a form of cerebellar multisensory learning. 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.*

1:00 U2 **245.05** Maternal valproic acid treatments induce aberrant pattern of corticostriatal system in an animal model of autism spectrum disorders. H. KUO*; F. LIU. *Natl. Yang-Ming Univ.*

2:00 U3 **245.06** ● DTI and HARDI measures of anomalous auditory and language system microstructure in 16p11 deletions. J. I. BERMAN*; M. R. LANZA; W. CHUNG; T. P. L. ROBERTS; . SIMONS VIP CONSORTIUM. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Children's Hosp. of Philadelphia, Columbia Univ., Simons Fndn.*

3:00 U4 **245.07** A genetics based approach towards studying hemispheric dominance in magnetoencephalographic imaging (MEG-I). L. B. HINKLEY*; A. FINDLAY; C. DALE; T. LUKS; P. BUKSHPUN; T. THIEU; N. POJMAN; E. MARCO; S. KHAN; K. HEIKEN; S. QASMIEH; W. CHUNG; T. P. L. ROBERTS; E. H. SHERR; S. S. NAGARAJAN; . THE SIMONS VIP CONSORTIUM. *UC San Francisco, UC San Francisco, Children's Hosp. of Philadelphia, Columbia Univ., UC San Francisco, Simons Fndn.*

4:00 U5 **245.08** ● Abnormal sensory responses during semantic and facial discrimination in persons with chromosomal locus 16p11.2 deletions. C. L. DALE*; A. M. FINDLAY; L. B. HINKLEY; T. L. LUKS; P. BUKSHPUN; N. POJMAN; S. Y. KHAN; K. K. HEIKEN; S. QASMIEH; W. K. CHUNG; T. P. L. ROBERTS; E. H. SHERR; S. S. NAGARAJAN; . THE SIMONS VIP CONSORTIUM. *UC San Francisco, UC San Francisco, Children's Hosp. of Philadelphia, Columbia Univ. Med. Ctr., The Simons Fndn.*

1:00 U6 **245.09** Abnormal erk signaling in 16p11.2 copy number variation. E. H. SHERR*; A. FARIDAR; B. FREGEAU; P. BUKSHPUN; N. POJMAN; T. THIEU; . THE SIMONS VIP CONSORTIUM. *UCSF, Simons Fndn.*

2:00 U7 **245.10** Auditory cortex speech sound processing impairments in a rat model of autism. C. T. ENGINEER*; T. M. CENTANNI; K. W. IM; N. A. MORENO; W. A. VRANA; M. S. BORLAND; R. S. CARRAWAY; J. A. SHETAKE; K. G. RANASINGHE; J. R. RILEY; J. D. SEALE; L. G. WILSON; M. P. KILGARD. *The Univ. of Texas at Dallas.*

3:00 U8 **245.11** ● Electrophysiologic and structural markers of language impairment are seen in a genetic condition with high risk of autism spectrum disorders (ASD). T. P. ROBERTS*; J. JENKINS; V. CHOW; K. HEIKEN; M. LANZA; W. CHUNG; J. I. BERMAN; . SIMONS VIP CONSORTIUM. *Children's Hosp. of Philadelphia, Columbia Univ., Simon's Fndn.*

4:00 U9 **245.12** Neural correlates of language development in infants at risk for autism and infants with cranial deformities. P. HASHIM*; M. COFFMAN; C. MUKERJI; R. TILLMAN; A. NAPLES; G. RIGHI; J. TERNER; R. TRAVIESO; D. STEINBACHER; L. MAYES; J. A. PERSING; J. MCPARTLAND. *Yale Univ. Sch. of Med.*

1:00 U10 **245.13** A new computational approach, μGWAS, identifies a novel drug target for Autism. B. BIGIO*; V. SONAKYA; M. K. TONN; C. NASCA; K. M. WITTKOWSKI. *The Rockefeller Univ., RheinAhrCampus, The Rockefeller Univ., Univ. of Rome, Sapienza.*

2:00 U11 **245.14** The 5HT2a receptor antagonist M100907 attenuates probabilistic reversal learning impairments in the BTBR mouse model of autism. D. A. AMODEO*; J. A. SWEENEY; M. E. RAGOZZINO. *Univ. Illinois, Chicago, Univ. of Texas South Western, Univ. of Illinois at Chicago.*

3:00 U12 **245.15** Oxytocin modulates markers of the unfolded protein response in Caco2BB gut cells. H. TAMIR*; S. B. GLICKSTEIN; B. Y. KLEIN; D. L. HIRSCHBERG; M. M. MYERS; M. G. WELCH; M. G. WELCH. *Columbia Univ. Col. of Physicians and Surgeons, New York State Psychiatric Inst., Columbia Univ. Col. of Physicians and Surgeons, New York State Psychiatric Inst., EB Sci., Columbia Univ. Col. of Physicians and Surgeons.*

4:00 U13 **245.16** Behavioral impairments in the BTBR T+tf/J mouse model of autism are improved by perinatal choline supplementation. E. LANGLEY*; M. KRYKBAEVA; J. K. BLUSZTAJN; T. J. MELLOTT. *Boston Univ. Sch. of Med.*

1:00 U14 **245.17** Enhancement of α2,3-GABAA receptor signaling rescues autistic-like behaviors in a mouse model of autism. S. HAN*; C. TAI; C. J. JONES; T. SCHEUER; W. A. CATTERALL. *Univ. of Washington.*

2:00 U15 **245.18** Cerebrolysin administration restores altered anatomy and behavior in rat model of autism. M. E. BRINGAS*; O. E. APARICIO; A. L. SOTOMAYOR; S. R. ZAMUDIO; F. DE LA CRUZ; M. ATZORI; G. FLORES. *Benemérita Univ. Autónoma De Puebla, Inst. Politécnico Nacional, Univ. of Texas at Dallas.*

3:00 U16 **245.19** Ketogenic diet attenuates behavioral abnormalities in the prenatal valproic acid rat model of autism spectrum disorder. Y. AHN*; S. T. NAKANISHI; R. TOBIAS; J. M. RHO; R. MYCHASIUK. *Alberta Children's Hosp. Res. Inst.*

4:00 U17 **245.20** ● Clinical and experimental observations of bumetanide in autism. D. C. FERRARI*; R. TYZIO; R. NARDOU; I. KHALILOV; T. TSINTSADZE; C. BROUCHOUD; E. LEMONNIER; N. LOZOVAYA; N. BURNASHEV; Y. BEN-ARI. *Neurochlore, INMED, INSERM U901, Aix-Marseille Univ., Lab. de Neurosciences de Brest, EA 4685, INSERM U663, Univ. Paris Descartes.*

1:00 U18 **245.21** Effects of a beta-adrenergic antagonist on social and cognitive abilities in autism spectrum disorder. R. M. ZAMZOW*; B. J. FERGUSON; M. L. LEWIS; E. C. REZNICEK; A. S. RAGSDALE; S. E. CHRIST; J. P. STICHTER; D. Q. BEVERSDORF. *Univ. of Missouri-Columbia.*

2:00 V1 **245.22** ▲ Potential contribution of pitocin and/or epidurals in labor to the development of an autism phenotype. A. SAREEN*; E. BAKER; T. WILLIAMS. *Trinity Univ.*

3:00 V2 **245.23** D-cycloserine improves sociability in the BTBR T+ Itpr3tf/J mouse model of autism spectrum disorders with altered Ras/Raf/ERK1/2 signaling. J. A. BURKET*; A. D. BENSON; A. H. TANG; S. I. DEUTSCH. *Eastern Virginia Med. Sch., Eastern Virginia Med. Sch.*

4:00 V3 **245.24** Emergence of holistic processing for neural objects in autism. E. WHYTE; M. BEHRMANN; D. ELBICH*; N. MINSHEW; S. SCHERF. *The Pennsylvania State Univ., Carnegie Melon Univ., Penn State Univ., Univ. of Pittsburgh.*

1:00 V4 **245.25** Neural signatures of phonological working memory and grammatical processing in autism spectrum disorders. Z. QI*; T. PERRACHIONE; A. HARRIS; I. OSTROVSKAYA; S. BEACH; K. HALVERSON; A. CYR; K. SHER; M. KJELGAARD; J. D. E. GABRIELI; K. WEXLER; H. TAGER-FLUSBERG. *MIT, Boston Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

246. Attention Deficit Hyperactivity Disorder: Child Development

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 V5 **246.01** ● Child behavior checklist dysregulation profile and the brain: A VBM analysis. D. N. KENNEDY*; M. E. WOOD; E. MICK; J. A. FRAZIER. *U. Massachusetts Med., U. Massachusetts Med.*

2:00 V6 **246.02** Novel but also contextually rare visual stimuli activate the novelty network in children and adolescents with ADHD. J. TEGELBECKERS*; N. BUNZECK; E. DUZEL; B. BONATH; H. FLECHTNER; K. KRAUEL. *Otto Von Guericke Univ., Univ. Med. Ctr. Hamburg-Eppendorf, Univ. Col. London, Otto von Guericke Univ., German Ctr. for Neurodegenerative Dis. (DZNE), Otto von Guericke Univ.*

3:00 V7 **246.03** Atypical rich-club organization in brain connectivity as an endophenotype of attention deficit hyperactivity disorder. M. MATTHEWS*; S. RAY; J. NIGG; D. FAIR. *Oregon Hlth. & Sci. Univ.*

4:00 V8 **246.04** Tracking the response inhibition network in ADHD: A joint F-MRI-DTI study. L. K. TREMBLAY*; M. BHAIJIWALA; D. MABBOTT; S. AMEIS; A. CHEVRIER; F. WANG; F. LIU; R. SCHACHAR. *Hosp. For Sick Children, Hosp. For Sick Children.*

1:00 V9 **246.05** Relationship between grit, self-control and academic achievement in ADHD. K. J. RUTLEDGE; J. F. DIXON; C. FASSBENDER; T. A. HARTANTO; E. CALFEE; J. B. SCHWEITZER*. *Unive Calif Davis SOM.*

2:00 V10 **246.06** ● Altered connectivity in default mode and cingulo-opercular networks in children with adhd. S. H. MOSTOFSKY*; M. NEBEL; L. JACOBSON; J. WEXLER; B. S. CAFFO; J. J. PEKAR; A. D. BARBER. *Kennedy Krieger Institute, Johns Hopkins Univ. Sch. o, Johns Hopkins Sch. of Med., Kennedy Krieger Inst., Johns Hopkins Sch. of Publ. Hlth., Kennedy Krieger Institute, Johns Hopkins Univ. Sch. o.*

3:00 V11 **246.07** EEG source imaging indices of attentional and inhibitory processing show association with dopamine system genes. G. MCLOUGHLIN*; S. MAKEIG; J. PALMER; D. BRANDEIS; M. LAUCHT. *UC San Diego, Univ. of California San Diego, Univ. of California San Diego, Central Inst. of Mental Hlth., Univ. of Zurich, Central Inst. of Mental Hlth.*

4:00 V12 **246.08** Behavioral problems in preschool children relates to regional differences in cortical surface area. A. BJØRNEBEKK*; A. M. FJELL; V. MOE; K. J. Ø. HAABREKKE; T. SIQVELAND; K. SLINNING; K. B. WALHOVD. *Oslo Univ. Hosp., Univ. of Oslo, Natl. Network for Infant Mental Hlth. in Norway.*

1:00 W1 **246.09** ● Amygdalar and hippocampal volumetric and endocrine correlates of mood and anxiety in children with chromosome 22q11.2 deletion syndrome. E. A. BEATON*; N. Q. CUNG; M. H. CABARAL; D. D. STEPHENSON, Jr.; K. ANGKUSTSIRI; I. LECKLITER; T. J. SIMON. *Univ. of New Orleans, Univ. of California Davis, Univ. of California Davis.*

2:00 W2 **246.10** Methylphenidate alters auditory and visual information processing in healthy volunteers. M. KOROSTENSKAJA*; D. KICIC; A. SCHAAL; S. KAHKONEN. *Functional Brain Mapping and BCI Lab, Florida Hosp. For Children, BioMag Laboratory, HUSLAB, Helsinki Univ. Central Hosp.*

POSTER

247. Epilepsy: Glutamatergic Transmission

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 W3 **247.01** ● Tomosyn dysregulation leads to aberrant glutamate release in the dentate gyrus of the hippocampus in a murine model of epileptogenesis. S. R. BATTEN*; E. A. MATVEEVA; J. E. QUINTERO; F. POMERLEAU; P. HUETTL; S. W. WHITEHEART; T. C. VANAMAN; P. E. A. GLASER; G. A. GERHARDT; J. T. SLEVIN. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky.*

2:00 W4 **247.02** AMPA receptor-mediated transmission is enhanced during status epilepticus associated with increased insertion of GluA1 subunits. K. RAJASEKARAN*; S. JOSHI; J. KAPUR. *Univ. Virginia.*

3:00 W5 **247.03** Maturation of astrocytic glutamate reuptake is disrupted in a model of cortical malformation. E. HANSON*; M. ARMBRUSTER; L. ANDRESEN; D. CANTU; C. DULLA. *Tufts Univ.*

4:00 W6 **247.04** Head-to head comparison between mGlu1 and mGlu5 receptor enhancement in the chronic treatment of absence epilepsy in WAG/Rij rats. V. D'AMORE*; I. SANTOLINI; L. LIONETTO; C. M. VAN RIJN; M. SIMMACO; P. J. CONN; S. GATTI; F. NICOLETTI; G. VAN LUIJTELAAR; R. T. NGOMBA. *I.R.C.C.S., Neuromed, St. Andrea Hosp., Donders Inst. for Brain, Cognition and Behaviour., Vanderbilt Univ., C.N.S. Res. F. Hoffman LaRoche Ltd, Univ. Sapienza, Dept. of Physiol. and Pharmacol.*

1:00 W7 **247.05** Developmental expression profile of transmembrane AMPA receptor regulatory proteins and AMPA receptor subunits in Genetic Absence Epilepsy Rats from Strasbourg. P. M. CASILLAS-ESPINOSA*; R. BARMANRAY; T. J. O'BRIEN; K. L. POWELL. *Melbourne Brain Centre. Royal Melbourne Hospital. The Univ. of Melbourne.*

2:00 W8 **247.06** Mechanisms underlying comorbid depression in temporal lobe epilepsy (tle). R. DHAHER*; H. WANG; S. GRUENBAUM; C. ONG; H. ZAVERI; T. EID. *Yale Univ.*

3:00 W9 **247.07** Traumatic brain injury alters cortical glutamate network function by compromising GABAergic inhibition. D. CANTU*; K. WALKER; L. ANDRESEN; A. TAYLOR; D. HAMPTON; G. TESCO; C. DULLA. *Tufts Univ. Sch. of Med.*

4:00 W10 **247.08** ▲ Characterization of brain structural changes in the methionine sulfoximine rat model of mesial temporal lobe epilepsy. H. WANG*; Y. HUANG; R. DHAHER; D. COMAN; H. ZAVERI; F. HYDER; T. EID. *Yale Univ. Sch. of Med., Yale Univ. Sch. of Med., Yale Univ. Sch. of Med., Yale Univ. Sch. of Med.*

1:00 W11 **247.09** Corticotropin-releasing factor facilitates epileptiform activity via CRF2 receptor-mediated signaling mechanisms in the rat entorhinal cortex. L. KURADA*; N. I. CILZ; S. LEI. *Univ. of North Dakota.*

2:00 W12 **247.10** Assessing the presynaptic deficit in LIS1 mice. W. B. POTTER*; S. C. BARABAN. *UCSF.*

3:00 W13 **247.11** Early life seizures impaired homeostatic synaptic scaling in cortical neurons. H. SUN*; B. KOSARAS; F. E. JENSEN. *Univ. of Pennsylvania, Boston Children's Hosp. and Harvard Med. school.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 W14 **247.12** ● The anticonvulsant phytocannabinoid cannabidivarin (CBDV) has a disease-dependent effect on synaptic transmission. C. L. HILL*; B. J. WHALLEY; C. M. WILLIAMS; G. J. STEPHENS. *Univ. of Reading, Univ. of Reading.*

1:00 W15 **247.13** Changes in the expression of MDR1 and MRP1 by probenecid administration to reduce NMDA receptor activity in kindled rat. C. C. LIVERA*; J. MARTÍNEZ-LAZCANO; E. GONZÁLEZ-GUEVARA; D. CAMPOS - ARROYO; V. CUSTODIO RAMÍREZ; M. HERNÁNDEZ - CERÓN; M. RUBIO; F. PÉREZ - SEVERIANO; C. PAZ. *Inst. Nacional De Neurología Y Neurocirugía, Inst. Nacional de Neurología y Neurocirugía, INMEGEN, Inst. Nacional de Neurología y Neurocirugía.*

2:00 W16 **247.14** Hippocampal synaptic plasticity after development in a rat model of cryptogenic infantile spasms. M. TSUJI; Y. TAKAHASHI; A. M. WATABE; F. KATO*. *Dept Neurosci, Jikei Univ.*

POSTER

248. Epileptogenesis

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 W17 **248.01** Alterations of TLR4 expression following brain injuries. Z. C. XU*; Y. LIANG; H. ZHANG; Z. LEI; Z. XU; Q. CUI. *Indiana Univ. Med. Ctr., The 3rd Affiliated Hosp. of Guangzhou Med. Univ.*

2:00 W18 **248.02** Seizure-induced severe ischemic/hypoxic episodes (SISIHE) explains Todd's paresis. J. S. FARRELL*; J. F. DUNN; G. C. TESKEY. *Univ. of Calgary, Hotchkiss Brain Inst.*

3:00 X1 **248.03** Role of RNA-Polymerase-1 in epileptogenesis. M. HETMAN*; A. VASHISHTA; R. PARLATO. *Univ. of Louisville, DKFZ.*

4:00 X2 **248.04** Dysregulated NRSF expression after epilepsy-inducing insults is caused by a loss of microRNA-124. G. P. BRENNAN*; S. MCCLELLAND; S. IYER; T. Z. BARAM. *Univ. of California Irvine, Univ. of California Irvine.*

1:00 X3 **248.05** ● Aspirin prevents the development of hippocampal mossy fiber sprouting through the attenuation of mTOR signaling in a mouse model of temporal lobe epilepsy. K. JEONG*; J. KIM; M. LEE; S. KIM*. *Col. of Medicine, The Catholic Univ. of Korea, The Catholic Univ. of Korea, The Catholic Univ. of Korea.*

2:00 X4 **248.06** Chromatin remodeling in neurons in the caudate-putamen after excessive neuronal excitation. T. MORI; T. WAKABAYASHI*; Y. HIRAHARA; Y. TAKAMORI; T. KOIKE; H. YAMADA. *Kansai Med. Sch.*

3:00 X5 **248.07** Transcriptome profiling of hippocampal CA3 reveals spatially distinct patterns of gene expression after early-life seizure-induced preconditioning. S. HU*; A. M. SLOMKO; Z. NASEER; S. S. ALI; Y. GLICKSMAN; L. K. FRIEDMAN. *New York Med. Col.*

4:00 X6 **248.08** May neonatal seizures plant the roots for epileptogenesis? E. Y. SONODA*; M. J. G. MARQUES; E. A. CAVALHEIRO; R. M. CYSNEIROS; F. A. SCORZA. *Federal Univ. of Sao Paulo, Mackenzie Univ.*

1:00 X7 **248.09** Exposure to caffeine during pregnancy and lactation increases network excitability and seizure susceptibility in rodent offspring. A. W. FAZELI*; A. GHESTEM; S. MARGUET; R. CUNHA; M. ESCLAPEZ; D. ISBRANDT; C. BERNARD. *Ctr. For Mol. Neurobiology, Exptl. Neuropediatrics, INSERM UMR1106, Inst. de Neurosciences des Systèmes, Ctr. for Neurosci. and Cell Biology, Univ. of Coimbra.*

2:00 X8 **248.10** Post-traumatic epileptogenesis in APP/PS1 mouse model of Alzheimer`s disease. D. MISZCZUK*; H. TANILA; K. LUKASIUK; A. PITKANEN. *Nencki Inst. of Exptl. Biol., A. I. Virtanen Institute, Univ. of Eastern Finland, Kuopio Univ. Hosp.*

3:00 X9 **248.11** Long-term effects of the initial pattern of activity-dependent synaptic depression on seizure probability in a hippocampal network model. W. B. SWIERCZ*; K. J. STALEY. *Massachusetts Gen. Hosp., Harvard Med. Sch.*

4:00 X10 **248.12** Homeostatic synaptic scaling mediates distinct types of paroxysmal activity following brain trauma. O. GONZALEZ*; G. KRISHNAN; T. SEJNOWSKI; I. TIMOFEEV; M. BAZHENOV. *Univ. of California, Riverside, Salk Inst. for Biol. Studies, Laval Univ.*

1:00 X11-DP5 **248.13** The development of an epileptic network following brain injury. K. P. LILLIS*; W. B. SWIERCZ; M. A. KRAMER; B. J. BACSKAI; K. J. STALEY. *Harvard Med. Sch., Boston Univ.*

2:00 X12 **248.14** Potential underlying mechanisms of epileptogenesis after traumatic brain injury. Z. WANG*; K. STALEY. *Massachusetts Gen. Hosp. & Harvard Med. Sch.*

3:00 X13 **248.15** Involvement of D3 dopamine receptor and dopamine transporter in epileptogenesis in Genetic Absence Epilepsy Rats from Strasbourg. F. CAVAREC; P. KRAUSS; C. BEAUMONT; A. BROIZAT; J. TOCZEK; C. GHEZZI; A. DEPAULIS*; C. DERANSART. *Grenoble Inst. Neurosci, Radiopharmaceutiques Biocliniques Inserm U1039-UJF-CHU, Grenoble.*

4:00 X14 **248.16** The role of adult-generated granule neurons in epileptogenesis and cognitive impairment. K. CHO*; N. ITO; Z. LYBRAND; L. GOOD; S. BIRNBAUM; S. G. KERNIE; H. E. SCHARFMAN; A. J. EISCH; J. HSIEH. *The Catholic Univ. of Korea, UT Southwestern Med. Ctr., UT Southwestern Med. Ctr., UT Southwestern Med. Ctr., Columbia Univ., The Nathan Kline Inst. for Psychiatric Res. and NYU Langone Med. Ctr.*

1:00 X15 **248.17** ● Targeting isoketals to attenuate learning and memory deficits associated with epileptogenesis. J. PEARSON*; L. LIANG; L. ROBERTS, II; M. PATEL. *Univ. of Colorado, Vanderbilt Univ.*

2:00 X16 **248.18** ▲ Pathaphysiology and treatment of epileptic seizures in immature mice following hypoxic/ischemic brain injury. J. PENG*; C. WU; L. ZHANG. *Divisions of Genet. & Development, Toronto Western Res. Inst.*

3:00 X17 **248.19** Epileptogenesis in urokinase-type plasminogen activator receptor deficient mice after traumatic brain injury. T. BOLKVADZE*; A. PITKÄNEN. *A.I.Virtanen Inst. For Mol. Sciences, Univ. of Eastern Finland, A.I.Virtanen Inst. for Mol. Sciences, Univ. of Eastern Finland, Kuopio Univ. Hosp.*

4:00 X18 **248.20** Abnormal integration of adult-generated granule cells two weeks old at the time of an epilepsy-inducing insult disrupts local dentate microcircuit during epileptogenesis. R. T. JONES*; L. ORMISTON; I. MODY. *UCLA, UCLA, UCLA.*

1:00 Y1 **248.21** Refined kainate C57BL/6J mouse model of epileptogenesis. S. PUTTACHARY; E. BEAMER; K. TSE; G. SILLS; T. THIPPESWAMY*. *Iowa State Univ., Univ. of Liverpool, Univ. of Liverpool, Iowa State Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 Y2 **248.22** Dynamic changes in kainate receptor mediated responses in hippocampal area CA3 during epileptogenesis in the rat. T. MODEBADZE*; G. WOODHALL. *Aston Univ.*

3:00 Y3 **248.23** Low-dose lithium-pilocarpine-xylazine epileptogenesis - a refined model of chronic epilepsy in the rat. G. WOODHALL*; N. MORGAN. *Aston Univ.*

4:00 Y4 **248.24** Impact of the endocannabinoid and endovanilloid system on the generation of a hyper-excitable neuronal network. E. VON RÜDEN*; M. JAFARI; R. M. BOGDANOVIC; L. VILELA; C. T. WOTJAK; H. POTSCHKA. *Inst. of Pharmacology, Toxicology, and Pharm., Grad. Sch. of Systemic Neurosciences, Inst. of Clin. Neuroimmunology, Inst. of Pharmacology, Toxicology and Pharm., Inst. of Biol. Sci., Max Planck Inst. of Psychiatry.*

1:00 Y5 **248.25** LIM-domain-binding proteins interaction in neuronal development and epileptogenesis. B. K. IWANIUK*; A. GROTE; K. VAN LOO; S. SCHOCH; A. J. BECKER. *Univ. Bonn Med. Ctr., Univ. Bonn Med. Ctr.*

POSTER

249. Stroke Recovery: Integrated Responses and Treatment

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 Y6 **249.01** Benefits of early exposure to enriched environment on motor behavior and on the spinal cord plasticity in a cerebral palsy rat model. S. MARCUZZO*; M. R. MARQUES; F. STIGGER; O. A. AUGUSTIN; E. SEGABINAZI; S. BARBOSA; F. V. PIAZZA; M. ACHAVAL. *Univ. Federal Do Rio Grande Do Sul, Programa de Pós Graduação em Neurociências - UFRGS, Univ. Federal do Rio Grande do Sul.*

2:00 Y7 **249.02** A loud acoustic stimulus evoked-response during movement planning facilitates voluntary reach in patients with chronic stroke. C. YANG; S. MCCOMBE WALLER*; A. HOWE; M. W. ROGERS. *Univ. of Maryland, Sch. of Med.*

3:00 Y8 **249.03** Promoting recovery after stroke using botulinum toxin for limb immobilization. A. ORR*; D. BINGHAM; M. KAWABORI; J. KIM; Z. ZHENG; T. LAM; S. MASSA; J. LIU; M. YENARI; R. SWANSON. *Univ. of California San Francisco.*

4:00 Y9 **249.04** Protection by LOXBlock-1 in novel mouse models of permanent and transient focal ischemia: Inhibiting 12/15-lipoxygenase to treat stroke. H. KARATAS-KURSUN*; Y. LIU; E. LO; K. VAN LEYEN. *Hacettepe University, Inst. of Neurolog. Sci. and Psychiatry, Neuroprotection Res. Laboratory, Dept. of Radiology.*

1:00 Y10 **249.05** ● Frontal-subcortical function and use of assistive speech devices for aphasia. A. CHAUDHARI*; J. S. MANISCALCO; J. ZHANG; D. S. WILLIAMSON; U. ADLER; A. M. BARRETT. *New Jersey Med. School, UMDNJ, Kessler Fndn., CUNY Grad. Ctr., CUNY Queens Col., Weill Cornell Med. Col., The Stroke Comeback Ctr., Kessler Inst. of Rehabil., New Jersey Med. School, UMDNJ, Kessler Inst. of Rehabil.*

2:00 Z1 **249.06** Evaluating the relationships between hand function with measures of brain structure and function in chronic stroke. M. R. BORICH*; E. DAO; J. D. EDWARDS; S. K. MEEHAN; L. A. BOYD. *Univ. of British Columbia, Univ. of British Columbia, Univ. of Michigan.*

3:00 Z2 **249.07** Probabilistic tractography of transcallosal motor tracts in the chronic phase after stroke. D. B. ARCHER*; G. MISRA; C. PATTEN; S. COOMBES. *Univ. of Florida.*

4:00 Z3 **249.08** ● Influence of BDNF genotype to the response of rTMS modes in chronic stroke patients. W. CHANG*; K. UHM; J. HWANG; H. SHON; Y. KIM. *Samsung Med. Ctr.*

1:00 Z4 **249.09** Resting-state functional connectivity in a somatomotor network and its association with the continuum of upper extremity behavioral recovery in chronic stroke. M. URBIN*; X. HONG; C. LANG; A. CARTER. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

2:00 Z5 **249.10** Focal cerebral ischemia induced motor cortex ascorbate increase is attenuated by pre-ischemia treadmill running. K. LIU*; Y. WANG; H. WANG; J. LI. *Capital Univ. of Physical Educ. and Sports.*

3:00 Z6 **249.11** Gait training with full weight bearing Gait-Assistance Robot for subacute stroke patients with severe gait disturbance: A prospective, randomized, open, blinded-endpoint trial. ; F. WADA; S. SAEKI; K. HACHISUKA. *Univ. of Envrn. and Occup. Hlth.*

4:00 Z7 **249.12** ▲ Evidence for ipsilateral corticospinal control in hemiparetic upper limb after cortical lesions as demonstrated by transcranial direct current stimulation. W. KLOMJAI*; A. LACKMY-VALLÉE; N. ROCHE; B. BUSSEL; P. PRADAT-DIEHL; R. KATZ. *ER6 UPMC, Mahidol Univ., Univ. Versailles-Saint-Quentin, Hôpital Raymond Poincaré, Hôpital Pitie Salpetriere.*

1:00 Z8 **249.13** Effects of GHB and baclofen on sleep and motor function in healthy rats and rats with focal cerebral ischemia. A. HODOR*; S. PALCHYKOVA; B. GAO; C. L. BASSETTI. *Univ. Hospital, Inselspital, Bern.*

2:00 Z9-DP6 **249.14** ● Diffusion Tensor Imaging exhibits more proximate and reliable Transcranial Magnetic Stimulation measures compared to fMRI in stroke. D. A. CUNNINGHAM*; A. MACHADO; V. RAJAGOPALAN; M. LOWE; S. JONES; E. BEALL; K. SAKAIE; E. PLOW. *Cleveland Clin., Cleveland Clin., Kessler Fndn., Cleveland Clin.*

3:00 Z10 **249.15** ● Improving hand and arm therapy outcomes with rTMS is related to paretic limb motor evoked potentials. L. M. ROGERS*; H. R. ROTH; R. S. TAPPAN; M. B. HARVEY; J. W. STINEAR; R. L. HARVEY. *Rehabil. Inst. of Chicago, Northwestern Univ., Univ. of Auckland.*

4:00 Z11 **249.16** Differential effects of rtms on genes concerning neural plasticity in young and old rats. J. KIM*; B. OH; T. HAN. *Korea Natl. Rehabil. Ctr., Seoul Natl. Univ. Col. of Med.*

1:00 Z12 **249.17** Contracture of finger and hand after cerebral stroke was improved in a short duration by grasping a high repulsion grip. H. NISHINO*; M. SHIRAKI; M. YAMAUCHI; S. URAKAWA; K. SAKAKIBARA; H. NISIJO. *NPO Corp. Healthy Brain, Toyama Univ., Sun Barden, Toyama Univ.*

2:00 Z13 **249.18** Mapping abnormal functional connectivity in brain injury. J. S. SIEGEL*; N. V. METCALF; R. P. FUCETOLA; L. RAMSEY; C. HACKER; A. CALLEJAS; A. BALDASSARRE; A. Z. SNYDER; J. S. SHIMONY; G. L. SHULMAN; M. CORBETTA. *Washu Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

3:00 Z14 **249.19** Imaging brain activation after motor task in the rat using small animal micro PET. S. TSAI*; S. CHENG; H. TSAI; H. KIM; H. ZHANG; L. LEONI; G. L. KARTJE; C. CHEN; C. KAO. *Edward Hines Jr VA Hosp., Loyola Univ. Chicago, Univ. of Chicago.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 Z15 **249.20** Nanoparticle-mediated therapeutic delivery in a rabbit model of cerebral palsy: Mechanism of nanoparticle uptake. E. NANCE*; B. BALAKRISHNAN; F. ZHANG; M. MISHRA; R. KANNAN; S. KANNAN. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

1:00 Z16 **249.21** Cortical connectivity predicts motor impairment and improvement with Telerehabilitation therapy in chronic stroke. J. WU*; R. SRINIVASAN; N. KATHURIA; L. DODAKIAN; J. SEE; S. C. CRAMER. *Univ. of California, Irvine.*

2:00 Z17 **249.22** Changes in collateral blood flow and neuroprotective efficacy of transient aortic occlusion during acute ischemic stroke. G. RAMAKRISHNAN*; B. DONG; G. ARMITAGE; K. TODD; A. SHUAIB; I. R. WINSHIP. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta, Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

3:00 Z18 **249.23** Modulatory effects of three different non-invasive brain stimulation techniques. H. GOH*; L. ABDUL LATIF; H. CHAN. *Univ. of Malaya, Univ. of Malaya.*

4:00 AA1 **249.24** Transfusion of carbon monoxide-bound pegylated hemoglobin during reperfusion from transient focal cerebral ischemia reduces infarct volume. X. LIU*; H. KWANSA; E. KULIKOWICZ; J. ARMSTRONG; D. SPICER; R. C. KOEHLER. *The Johns Hopkins Univ.*

1:00 AA2 **249.25** ● Measuring vascular reactivity with breath-holds after stroke: Implications for fMRI study interpretations. F. GERANMAYEH*; R. J. S. WISE; K. MURPHY. *Imperial Col. London, Cardiff Univ. Brain Res. Imaging Ctr.*

2:00 AA3 **249.26** Optogenetic stimulation of the striatum promotes functional recovery after focal ischemic stroke in mice. M. SONG*; O. MOHAMAD; X. GU; S. WEI; L. WEI; S. YU. *Emory Univ. Sch. of Med.*

3:00 AA4 **249.27** ● Voluntary 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.*

4:00 AA5 **249.28** A comparison of eeg patterns during active and passive control of haptic devices in stroke patients. W. PARK*; J. KANG; G. KWON; W. CHANG; Y. KIM; L. KIM; S. KIM. *Korea Inst. of Sci. and Technol., Korea Univ., Samsung Med. Center, Sungkyunkwan Univ. Sch. of Med., Korea Univ.*

1:00 AA6 **249.29** Protein kinase C epsilon regulates mitochondrial NAD+/NADH following resveratrol and ischemic preconditioning in cortical cultures. K. MORRIS*; J. T. NEUMANN; C. H. COHAN; S. V. NARAYANAN; M. A. PEREZ-PINZON. *Univ. of Miami Miller Sch. of Med.*

2:00 AA7 **249.30** AMP-activated protein kinase (AMPK)-induced preconditioning in primary neurons requires MCL-1. U. ANIL KUMAR*; P. WEISOVÁ; H. DÜSSMANN; C. G. CONCANNON; H. G. KÖNIG; J. H. M. PREHN. *Royal Col. of Surgeons In Ireland, Max F. Perutz Laboratories, Univ. of Vienna.*

3:00 AA8 **249.31** ▲ Effects of ischemic postconditioning on the progression of focal cerebral ischemia. E. ESPOSITO*; K. HAYAKAWA; K. VAN LEYEN; S. POLI; U. ZIEMANN; E. LO. *Hertie Inst. For Clin. Brain Res., Massachusetts Gen. Hosp.*

POSTER

250. Ischemia: Animal Models

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 AA9 **250.01** Behavioral and neuroanatomical changes following focal motor cortex ischemia in the mouse. C. ALIA; C. SPALLETTI; S. LAI; M. MAINARDI; A. PANARESE; S. MICERA; M. CALEO*. *Scuola Normale Superiore, Inst. of Life Sciences, Scuola Superiore Sant'Anna, The BioRobotics Institute, Scuola Superiore Sant'Anna, Neurosci. Institute, C.N.R., Ecole Polytechnique Federale de Lausanne.*

2:00 AA10 **250.02** Establishment of pterygopalatine artery (PPA) ligation murine model of retinal ischemia to test efficacy of stem cells. G. MINHAS*; S. PRABHAKAR; A. ANAND. *Dept. of Neurology, Post Grad. Inst. of Med. Educ. & Res.*

3:00 AA11 **250.03** Functional connectivity between the cerebellum and the cerebral cortex related to higher brain function. S. JUNG*; Y. KIM; N. PAIK. *Seoul Natl. Univ. Boramae Med. Ctr., Seoul Natl. Univ. Boramae Med. Ctr., Seoul Natl. Univ. Bundang Hosp.*

4:00 AA12 **250.04** Transient MCAO prevents habit formation in C57Bl/6J mice. J. LINDEN; A. FERRARA; M. BASTIN; J. L. PLUMIER*. *Univ. De Liège, Univ. de Liège, Univ. De Liège.*

1:00 AA13 **250.05** The spread of sensory-evoked cortical activity along long-range horizontal projections is critical to complete protection from ischemic stroke following permanent MCA occlusion. R. FROSTIG; C. C. LAY*; N. JACOBS; P. VU; M. DAVIS. *Univ. of California, Irvine.*

2:00 AA14 **250.06** ● ▲ Time course of behavioral and hippocampal neurogenesis after transient global cerebral ischemia in swiss mice. L. M. SOARES*; A. P. SCHIAVON; H. MILANI; R. M. M. W. DE OLIVEIRA. *Univ. Estadual De Maringá.*

3:00 AA15 **250.07** Amelioration of motor dysfunction in the rat spinal air embolism model by human spinal stem cell implantation. O. KAKINOHANA*; M. HRUSKA-PLOCHAN; S. MARSALA; K. JOHE; J. DUMPIT; A. MIYANOHARA; M. MARSALA. *UCSD, Neuralstem, Inc.*

4:00 AA16 **250.08** SIRT1 plays a potent protective role against chronic cerebral hypoperfusion. Y. HATTORI; M. IHARA*; N. OISHI; Y. OKAMOTO; K. NAGATSUKA; R. TAKAHASHI; H. FUKUYAMA; M. KINOSHITA. *Dept. of Neurol. Kyoto Univ. Grad. Sch. of Med., Dept. of Regenerative Med. and Tissue Engineering, Natl. Cerebral and Cardiovasc. Ctr., Natl. Cerebral and Cardiovasc. Ctr., Human Brain Res. Center, Kyoto Univ. Grad. Sch. of Med., Dept. of Pathology, Natl. Cerebral and Cardiovasc. Ctr., Dept. of Stroke and Cerebrovascular Diseases, Natl. Cerebral and Cardiovasc. Ctr., Div. of Biol. Science, Nagoya Univ. Grad. Sch. of Sci.*

1:00 AA17 **250.09** Non-invasive biomarkers estimate the time of onset of cerebral ischemia. C. BERTHET; L. XIN; C. BENAKIS; R. GRUETTER*; L. HIRT; H. LEI. *Ctr. Hospitalier Universitaire Vaudois, EPFL, Univ. of Geneva, Univ. of Lausanne.*

2:00 AA18 **250.10** Chronic cerebral hypoperfusion results in distinct behavioral and pathological outcomes in normotensive and hypertensive rats. J. CHOI*; Y. CUI; B. KIM. *Inst. For Med. Sciences, Ajou Univ. Sch. of Med., Ajou Univ. Sch. of Med., Ajou Univ. Sch. of Med.*

3:00 BB1 **250.11** Post-ischemic mitochondrial dysfunction in brains of diabetic rats exposed to recurrent hypoglycemia. P. FUCHS; F. DIAZ; K. DAVE*. *Univ. Miami Sch. Med.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 BB2 **250.12** Increased hemorrhage and mortality rate after transient focal ischemia in a genetic mouse model of type 1 diabetes. A. K. LAI*; A. C. LO. *The Univ. of Hong Kong.*

1:00 BB3 **250.13** ● Measures of long-term neurological recovery differentially affected by stroke severity in an intraluminal filament MCAO model in adult rats. C. MCEWEN*; S. J. E. WONG-GOODRICH; Z. HUANG; E. L. TROY; A. GANGULY; R. W. COLBURN; A. O. CAGGIANO; T. J. PARRY. *Acorda Therapeut.*

2:00 BB4 **250.14** Introduction of an alternative focal cerebral ischemia model in adult zebrafish by photothrombosis. X. YU*; Y. LI. *Ohio Univ., Ohio Univ.*

3:00 BB5 **250.15** Diffusional kurtosis imaging (DKI): A potential novel MRI biomarker of acute stroke and rehabilitation-induced neural plasticity. R. WEBER*; E. S. HUI; J. H. JENSEN; X. NIE; M. F. FALANGOLA; J. A. HELPERN; D. L. ADKINS. *Med. Univ. of South Carolina, Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

4:00 BB6 **250.16** Visualizing ganglioside expression using MALDI imaging mass spectrometry in a rat model of beta amyloid toxicity and stroke. S. CAUGHLIN*; J. D. HEPBURN; D. H. PARK; D. F. CECHETTO; S. N. WHITEHEAD. *The Univ. of Western Ontario.*

POSTER

251. Ischemia: Inflammation: White Cells and Cytokines

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 BB7 **251.01** TRPM2-mediated NO production in microglia/macrophage contribute to the progression of cerebral ischemic injury in mice. S. SAKIMOTO; H. SHIRAKAWA; K. ASAKURA; M. MUNAKATA; T. NAKAGAWA; S. KANEKO*. *Kyoto Univ.*

2:00 BB8 **251.02** Microglial TREM2 promotes neuronal phagocytosis after oxygen-glucose deprivation. R. KACIMI; T. M. KAUPPINEN; C. CALOSING; Z. ZHENG; C. L. HSIEH; M. NAKAMURA; M. A. YENARI*. *Univ. of California, San Francisco & the San Francisco VAMC, Univ. of Manitoba, Univ. of California, San Francisco & the San Francisco VAMC, Univ. California, San Francisco and San Francisco Veterans Affairs Med. Ctr.*

3:00 BB9 **251.03** Age differences in the inflammatory response at the vascular level induced by global cerebral ischemia in rat. B. ANUNCIBAY-SOTO; D. PÉREZ-RODRÍGUEZ; I. L. LLORENTE; M. GARCIA-GÓMEZ; F. SANROMAN LLORENS; M. REGUEIRO-PURRIÑOS; J. M. GONZALO-ORDEN; A. FERNANDEZ-LOPEZ*. *Univ. de Leon. Inst. de Biomedicina, Univ. de Leon. Inst. de Biomedicina, Univ. de Leon, Dpt. Biol. Mol., Univ. de Leon. Inst. de Biomedicina.*

4:00 BB10 **251.04** ● T helper cell subsets and regulatory T cells in long-term survived experimental stroke mice. H. HU*; X. REN; J. W. SIMPKINS. *West Virginia University, Ctr. For Basic and Translational Stroke Res.*

1:00 BB11 **251.05** Restoration by hesperetin of tryptophan metabolic enzyme systems protects against ischemic brain injury in mice. W. LEE*; S. KIM; S. KIM; Y. FANG; S. BAE; C. KIM. *Pusan Natl. Univ. Sch. of Med.*

2:00 BB12 **251.06** Triggering receptor expressed on myeloid cells 2 (trem2) deficiency attenuates phagocytic activities of microglia and exacerbates ischemic damage in experimental stroke. M. KAWABORI*; Z. ZHENG; C. CALOSING, Ph.D.; C. HSIEH; M. NAKAMURA; M. YENARI. *VA Med. Center/ UCSF, VA Med. Center/UCSF.*

3:00 CC1 **251.07** ▲ Postischemic exercise increases cell survival and modulates differently astrocyte and microglia functions in hippocampal dentate gyrus following global cerebral ischemia in Wistar rats. G. A. LOVATEL*; K. BERTOLDI; V. R. ELSNER; F. V. PIAZZA; C. BASSO; F. D. MOYSÉS; P. V. WORM; C. A. NETTO; S. MARCUZZO; I. R. SIQUEIRA. *Univ. Federal Do Rio Grande Do Sul.*

4:00 CC2 **251.08** Interleukin-33 induces a peripheral Th2-type shift that is protective in a mouse model of cerebral stroke. P. K. KORHONEN*; K. M. KANNINEN; S. LEHTONEN; S. WOJCIECHOWSKI; S. LEMARCHANT; I. KIDIN; E. POLLARI; E. SAVCHENKO; J. KOISTINAHO; T. MALM. *A.I. Virtanen Inst. For Mol. Sci.*

1:00 CC3 **251.09** Increased ephrin expression by neutrophil and microglia in a rat model of small-vessel stroke. F. S. CAYABYAB*; K. GOWRIBAI; W. WALZ. *Univ. of Saskatchewan, Univ. of Saskatchewan.*

2:00 CC4 **251.10** Neuroprotection of ethyl pyruvate in the postischemic brain by inhibiting HMGB1 release. H. LEE*; J. SHIN; I. KIM; L. LUO; H. LEE; J. LEE. *Inha Univ., Seoul Univ.*

3:00 CC5 **251.11** Meninges modulate post-stroke brain pathology via resident mast cells. A. ARAC*; M. A. GRIMBALDESTON; A. R. B. NEPOMUCENO; O. OLAYIWOLA; M. P. PEREIRA; Y. NISHIYAMA; H. VOGEL; M. TSAI; S. J. GALLI; T. M. BLISS; G. K. STEINBERG. *Stanford Univ., Div. of Human Immunology, Ctr. for Cancer Biol., Stanford Univ.*

4:00 CC6 **251.12** Inducible nitric oxide synthase in blood borne neutrophils mediates brain damage after transient focal cerebral ischemia. L. GARCIA-BONILLA*; J. MOORE; G. RACCHUMI; J. ANRATHER; C. IADECOLA. *Weill Cornell Med. Col.*

1:00 CC7 **251.13** microRNA associated with the inflammatory and immune response to stroke in humans may regulate many important targets including MMP9, TLR4, IL1 and IL6. G. JICKLING*; B. P. ANDER; X. ZHAN; B. STAMOVA; P. VERRO; D. LIU. *Univ. of California Davis.*

2:00 CC8 **251.14** Peri-infarct responses of microglia and astrocytes in a photothrombotic model of stroke in rats. N. R. SIMS*; W. YEW; N. D. DJUKIC; J. S. P. JAYASEELAN; H. MUYDERMAN. *Discipline of Med. Biochem. Flinders Univ.*

3:00 CC9 **251.15** Early responses of microglia to tissue infarction in a photothrombotic model of stroke in rats. W. YEW*; J. S. P. JAYASEELAN; N. D. DJUKIC; H. MUYDERMAN; N. R. SIMS. *Flinders Univ.*

4:00 CC10 **251.16** Lipocalin 2 is a detrimental factor induced after stroke-reperfusion injury. G. WANG; Y. WENG; X. HAN; W. CHOU*. *Kent State Univ., Kent State Univ.*

1:00 CC11 **251.17** ● Influences of diet and stroke on expression of genes that modulate inflammation and neuronal remodeling in the adult and aged male rat cerebral cortex. E. D. GRISLEY*; T. REHNBERG; J. A. MACLEAN, II; W. J. BANZ; D. A. BUTTEIGER; J. L. CHEATWOOD. *SIU Sch. of Med., SIUC, Solae, LLC, SIU Sch. of Med.*

2:00 CC12 **251.18** Blood-derived Ly6C^{low} macrophages contribute to spontaneous recovery after stroke. A. ARAC; Y. NISHIYAMA; T. HIU; T. M. BLISS; G. K. STEINBERG*. *Stanford Univ.*

3:00 CC13 **251.19** TLR2-induced MMP9 activation compromise blood brain barrier and enhances brain damage in collagenase-induced Intracerebral Hemorrhage. S. LEE*; H. MIN; J. HONG; Y. JANG; K. KWAK; S. LEE. *Seoul Natl. Univ., Chungnam Natl. Univ.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

252. Neuroprotective Mechanisms: Drugs, Nutrition, and Diet

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 CC14 **252.01** Fingolimod causes antidepressant-like effects and corrects the reduction in hippocampal BDNF levels in mice exposed to chronic unpredictable stress. L. DI NUZZO*; R. ORLANDO; J. MIELE; P. DI PIETRO; M. MOTOLESE; A. CARUSO; S. SCACCIANOCE; G. BATTAGLIA; V. BRUNO; C. POZZILLI; F. NICOLETTI. *Univ. Sapienza, I.R.C.C.S. Neuromed, Univ. Sapienza.*

2:00 DD1 **252.02** Dietary walnut alters neurochemical and behavioral functions in young and old rats. D. F. BIELINSKI*; S. POULOSE; D. FISHER; M. MILLER; F. RAMIREZ; B. SHUKITT-HALE. *USDA Human Nutr. Res. Ctr, Tufts Univ.*

3:00 DD2 **252.03** Tart cherries improve working memory in aged rats. B. SHUKITT-HALE*; M. G. MILLER; D. F. BIELINSKI; S. M. POULOSE. *Human Nutrit Res. Ctr. On Aging.*

4:00 DD3 **252.04** Dietary acai fruit improves cognition in aged rats. M. G. MILLER*; D. FISHER; A. N. CAREY; S. M. POULOSE; B. SHUKITT-HALE. *Tufts Univ., USDA HNRC on Aging at Tufts Univ., Simmons Col.*

1:00 DD4 **252.05** Elucidate the neuroprotective mechanisms of Scutellaria lateriflora. M. LOHANI; M. AHUJA; M. BUABEID; D. BHATTACHARYA; A. ROMANDO; V. SUPPIRAMANIAM; D. SHANNON; R. AMIN; E. S. COLEMAN*; D. SCHWARTZ; B. KEMPPAINEN; M. DHANASEKARAN. *Auburn Univ, Coll of Vet Med., Harrison school of Pharmacy, Auburn Univ., USDA,, Col. of Agriculture, Auburn Univ.*

2:00 DD5 **252.06** Chemical analysis and effect of blueberry and lingonberry fruits and leaves against glutamate-mediated excitotoxicity. S. KALIDINDI*; P. VYAS; L. CHIBRIKOVA; A. U. IGAMBERDIEV; J. T. WEBER. *Mem. Univ. of Newfoundland, Mem. Univ. of Newfoundland, Mem. Univ. of Newfoundland.*

3:00 DD6 **252.07** Vitamin D and/or calcium deficient diets preferentially affect type II muscle fiber neuromuscular junction genomic expression and innervation. D. J. GIFONDORWA*; Y. WANG; B. L. ADAMS; B. C. YADEN; J. G. MACKRELL; P. K. SHETLER; T. D. THOMPSON; K. TYLER; K. L. KNOPP; Y. L. MA; V. KRISHNAN; H. U. BRYANT. *Eli Lilly and Co., Eli Lilly and Co., Eli Lilly and Co.*

4:00 DD7 **252.08** ▲ Walk-training increases expression of glial cell line-derived neurotrophic factor in pectoralis muscle but not diaphragm from mouse. E. K. DONOVAN*; M. J. MCCULLOUGH; J. M. SPITSBERGEN. *Western Michigan Univ., Western Michigan Univ.*

1:00 DD8 **252.09** Deletion of selenoprotein m leads to obesity without cognitive deficits. M. W. PITTS*; M. A. REEVES; A. H. HASHIMOTO; A. OGAWA; P. KREMER; L. A. SEALE; M. J. BERRY. *Univ. Hawaii.*

2:00 DD9 **252.10** The effects of proton radiation on neurogenesis in adult mice that have consumed pomegranate juice. M. S. DULCICH*; V. POP; N. MISTRY; J. BADAUT; R. E. HARTMAN. *Loma Linda Univ., Univ. of California, Irvine, Loma Linda Univ.*

3:00 DD10 **252.11** Effects of aluminum on neurogenesis in subgranular zone of mouse dentate gyrus in high fat diet with D-galactose induced model. J. KIM*; S. NAM; D. YOO; W. KIM; H. JUNG; J. CHOI; M. WON; I. HWANG; J. SEONG; Y. YOON. *Seoul Natl. Univ. / Col. of Vet. Med., Kangwon Natl. Univ., Kangwon Natl. Univ.*

POSTER

253. Schizophrenia: Altered Brain Network Function

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 DD11 **253.01** Brain activation informs risk in genome-wide association. B. E. SPENCER*; R. E. STRAUB; Y. TONG; K. F. BERMAN; D. R. WEINBERGER; J. H. CALLICOTT. *Clin. Brain Disorders Branch, DIRP, NIMH, NIH, Lieber Inst. for Brain Develop.*

2:00 DD12 **253.02** Are individuals with schizophrenia who experience semantic encoding memory deficits can improve their performance following specific training? S. GUIMOND*; M. LEPAGE. *McGill Univ.*

3:00 DD13 **253.03** Altered functional brain networks in schizophrenia - a resting state fMRI study. K. C. SKATUN*; L. T. WESTLYE; G. P. BIELE; O. A. ANDREASSEN. *KG Jebsen Ctr. For Psychosis Res. - TOP, Oslo Univ. Hosp., Univ. of Oslo, Univ. of Oslo.*

4:00 DD14 **253.04** Emotional distractors result in aberrant activation within fronto-polar cortex in schizophrenia. D. RAMANATHAN*; J. M. FORD; V. D. CALHOUN; J. TURNER; J. T. VOYDOVIC; A. BELGER; T. G. M. VAN ERP; J. G. VAIDYA; D. H. MATHALON. *Univ. California, San Francisco, San Francisco VA Med. Ctr., Mind Res. Network, Duke Univ., Univ. of North Carolina, Univ. California, Irvine, Univ. of Iowa.*

1:00 DD15 **253.05** Network dysfunction during associative learning in schizophrenia: Direct evidence of disordered cortico-striatal-hippocampal interactions using fMRI and Dynamic Causal Modeling. S. WADEHRA*; P. PRUITT; V. DIWADKAR. *Wayne State Univ., Univ. of Michigan.*

2:00 DD16 **253.06** Trans-synaptic retrograde tracing of an auditory cortical circuit from posterior caudatoputamen in the rat. A. PARGA*; V. LAVARNWAY; E. M. NIKULINA; R. P. HAMMER, Jr. *Univ. of Arizona, Arizona State Univ., Univ. of Arizona.*

3:00 DD17 **253.07** ▲ Reward processing in unaffected siblings of schizophrenia patients: An fMRI study. M. DE LEEUW*; R. S. KAHN; M. VINK. *Rudolf Magnus Inst. of Neuroscience, Univ. Med. Ctr. Utrecht.*

4:00 DD18 **253.08** ● Early antipsychotics response in first-episode male schizophrenia patients coincides with rapid modulation of cognitive behaviors and neuronal plasticity in adult male rats. M. M. KHAN*; N. T. HWISA; A. R. ELTUMI; A. E. MEHEMED; S. P. MAHADIK. *Zawia Univ., B. S. Abdur Rahman Univ., Zawia Univ., Al-Razi Mental Hostpital, Georgia Reagents Univ.*

1:00 EE1 **253.09** Common and distinct neural effects of risperidone and olanzapine on procedural learning in schizophrenia. V. KUMARI*; U. ETTINGER; S. LEE; C. DEUSCHL; A. P. P. ANILKUMAR; S. C. WILLIAMS. *Inst. of Psychiatry, Univ. of Bonn, Inst. of Psychiatry, King's Col. London, South London and Maudsley NHS Fndn. Trust.*

2:00 EE2-DP4 **253.10** Multivariate analysis reveals sex differences in distributed neural networks of attention, language and emotion regulation in typically developing youth and pediatric mania. L. IORDANESCU*; M. C. STEVENS; J. FITZGERALD; M. N. PAVULURI. *Pediatric Brain Res. And Intervention Center, Univ. of Illinois At Chic, Yale Univ. Sch. of Medicine, Olin Neuropsychiatry Res. Center, The Inst. of Living/Hartford Hosp.*

3:00 EE3 **253.11** D-cell hypothesis for etiology of schizophrenia. K. IKEMOTO*. *Iwaki Kyoritsu Gen. Hosp.*

4:00 EE4 **253.12** Perinatal choline as an alpha7-nicotinic receptor agonist during human fetal development. R. FREEDMAN*; R. G. ROSS. *Univ. of Colorado Sch. of Med.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 EE5 **253.13** ▲ SCN2A (rs10174400) differentially modulates prefrontal activation during a fMRI processing speed task in healthy adults. G. BAUM*; D. DICKINSON; K. F. BERMAN; D. R. WEINBERGER; J. H. CALLICOTT. *Natl. Inst. of Mental Hlth., Lieber Inst. for Brain Develop., Johns Hopkins Univ. Sch. of Med.*

2:00 EE6 **253.14** Delayed Interplay between frontal activity and neurocardiac regulation in subjects with bipolar II disorder. J. CHANG*; K. HA; T. HA; J. HER. *Seoul Natl. Univ. Bundang Hosp.*

3:00 EE7 **253.15** Synaptic connectivity in olfactory bulb of schizophrenia. C. N. EGBUJO*; K. BORGMANN-WINTER; S. ARNOLD; K. TALBOT; B. TURETSKY; C. HAHN. *Univ. of Pennsylvania., Univ. of Pennsylvania.*

4:00 EE8 **253.16** ▲ Potential influence of miR-137-associated rs1625579 genotype on structural brain variation in schizophrenia. V. PATEL; N. COTA; C. WRIGHT; N. I. PERRONE-BIZZOZERO; M. MORGAN; V. D. CALHOUN; T. WASSINK; B. HO; S. EHRLICH; J. HASS; K. ALPERT; L. WANG; J. A. TURNER*. *MIND Res. Network, Univ. of New Mexico Hlth. Sci. Ctr., Univ. of Iowa Carver Col. of Med., TU Dresden, Northwestern Univ.*

1:00 EE9 **253.17** Difference of reward system activation in patients with schizophrenia treated with olanzapine, blonanserine and aripiprazole-2nd report. N. HASHIMOTO*; A. TOYOMAKI; T. MIYAMOTO; I. KUSUMI. *Grad. Sch. of Medicine, Hokkaido Univ.*

2:00 EE10 **253.18** Cortical EEG information flow in schizophrenics and controls during resting state. M. MIYAKOSHI*; A. J. RISSLING; T. MULLEN; N. BIGDELY-SHAMLO; S. LANGTON; D. L. BRAFF; G. A. LIGHT; S. MAKEIG. *Swartz Ctr. For Computat. Neuroscience, INC, UCSD, Japan Society for the Promotion of Sci., Univ. of California San Diego, Univ. of San Diego, VA San Diego Healthcare Syst., Univ. of California San Diego.*

3:00 EE11 **253.19** Small saccades and image complexity during free viewing of natural images in schizophrenia. R. MAYOL*; J. EGAÑA; C. DEVIA; J. PARRINI; A. RUIZ; P. MALDONADO. *Univ. De Chile, Biomed. Neurosci. Inst. & CENEM, Hosp. Clínico Univ. de Chile.*

4:00 EE12 **253.20** Significant changes in local connectivity in early-onset bipolar disorder with psychosis. H. M. FERNANDES*; J. CABRAL; M. PETERSEN; T. J. VAN HARTEVELT; A. C. JAMES; G. DECO; M. L. KRINGELBACH. *Dept. of Psychiatry, Univ. of Oxford, Ctr. of Functionally Integrative Neurosci. (CFIN), Aarhus Univ., Theoretical and Computat. Neurosci. Group, Ctr. of Brain and Cognition, Univ. Pompeu Fabra, Warneford Hosp., Institució Catalana de Recerca i Estudis Avançats (ICREA).*

1:00 EE13 **253.21** Disrupted slow wave modulation of spindle oscillations during Non-REM sleep correlates with procedural memory deficits in patients with schizophrenia. U. BARTSCH*; E. J. WAMSLEY; M. A. TUCKER; R. STICKGOLD; M. W. JONES; D. S. MANOACH. *Univ. of Bristol, Harvard Med. Sch., Massachusetts Gen. Hosp.*

2:00 EE14 **253.22** Temporal stability of default mode network in euthymic bipolar patients. S. KOVACEVIC*; G. N. SAVLA; V. OLAFSSON; C. WONG; A. SUTHERLAND; K. LU; E. GHOBRIAL; T. T. LIU; L. T. EYLER. *Veterans Med. Res. Fndn., VA San Diego Healthcare Syst., UCSD, UCSD Ctr. for Functional MRI, UCSD.*

3:00 EE15 **253.23** Distinguishing 1H-MRS metabolites in schizophrenia and methamphetamine-induced psychotic disorder. J. HSIEH; H. TEMMINGH; D. J. STEIN; F. HOWELLS*. *Dept. of Psychiatry, Univ. of Cape Town.*

4:00 EE16 **253.24** Localized changes in white matter connectivity in early-onset schizophrenia and its functional consequences. J. CABRAL*; H. M. FERNANDES; T. J. VAN HARTEVELT; A. C. JAMES. *Ctr. of Brain and Cognition, Univ. of Oxford, Aarhus Univ., Warneford Hosp.*

1:00 EE17 **253.25** Anterior but not posterior hippocampal volume is reduced in schizophrenia. P. A. TALATI*; A. LUKSIK; C. KONRADI; S. HECKERS. *Vanderbilt Univ., Vanderbilt Univ.*

2:00 EE18 **253.26** Synchronization and schizophrenia: What about cross frequency coupling disturbances? N. POLIZZOTTO*; C. WALKER; T. WOZNY; R. Y. CHO. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

3:00 FF1 **253.27** Functional connectivity in euthymic bipolar disorder reveals increased dynamic range. M. C. CHAMBERS*; C. TORGERSON; G. BARTZOKIS; L. ALTSHULER; J. D. VAN HORN. *Univ. of California Los Angeles, Univ. of California Los Angeles.*

4:00 FF2 **253.28** Slow binocular rivalry rate in patients with bipolar disorder,OCD,major depression,and schizophrenia. X. YE*; R. ZHU; K. WANG; S. HE. *The First Affiliated Hosp. of An Hui Med. Univ., Univ. of Minnesota.*

1:00 FF3 **253.29** Effects of ketamine on resting-state and task-related neural oscillations in MEG-data. D. RIVOLTA*; A. SAUER; T. HEIDEGGER; K. BIRKNER; B. SCHELLER; M. WIBRAL; W. SINGER; P. J. UHLHAAS. *Max Planck Inst. For Brain Res., Max Planck Inst. for Brain Res., Goethe Univ., Univ. of Glasgow.*

POSTER

254. Schizophrenia: Molecular and Cellular Mechanisms

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 FF4 **254.01** Reverse translation animal model of hippocampal dysfunction in Schizophrenia. S. SOUTHCOTT*; M. YANAGI; J. LISTER; I. LEE; C. TAMMINGA. *Univ. of Texas Southwestern Med. Ctr.*

2:00 FF5 **254.02** ● Evidence of hippocampal ca3-specific nmda receptor pathology in psychosis in schizophrenia. C. A. TAMMINGA*; W. LI; J. PEREZ; B. POTTS; C. MEYER; S. ARIAGNO; S. GHOSE. *Univ. Texas Southwestern Med. Ctr., UT Southwestern Med. Ctr., UT Southwestern Med. Ctr., UT Southwestern Med. Ctr.*

3:00 FF6 **254.03** Whole-transcriptome analysis of hippocampal CA3 in schizophrenia. J. M. PEREZ*; K. GLEASON; S. GHOSE; T. KIM; C. TAMMINGA. *UT Southwestern.*

4:00 FF7 **254.04** ▲ Hypo-NMDA receptor function leads to altered transcription in frontal cortex. N. D. JOHNSON*; C. A. PUDDIFOOT; J. R. NERY; M. URICH; E. A. MUKAMEL; R. LISTER; J. R. ECKER; T. J. SEJNOWSKI; M. M. BEHRENS. *The Salk Inst., The Salk Inst. for Biol. Sci., Genomic Analysis Laboratory, Howard Hughes Med. Inst., Howard Hughes Med. Inst.*

1:00 FF8 **254.05** ▲ Dysregulation of gene expression in a glycosylation pathway in schizophrenia. A. HELIX; M. SIMMONS; T. MUELLER; V. HAROUTUNIAN; J. H. MEADOR-WOODRUFF*. *Univ. Alabama at Birmingham, Mt. Sinai Sch. of Med.*

2:00 FF9 **254.06** Abnormal gene expression in striatal medium spiny neurons in schizophrenia. M. S. SIMMONS*; S. D. YATES; V. HAROUTUNIAN; R. MCCULLUMSMITH; J. H. MEADOR-WOODRUFF. *UAB, Mt. Sinai Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 FF10 **254.07** Sequential isolation of endosome subtypes from postmortem brain. T. M. MUELLER*; J. H. MEADOR-WOODRUFF. *UAB.*

4:00 GG1 **254.08** Altered neuregulin-1 intracellular domain dependent nuclear signaling in schizophrenia. D. SHAN; J. H. MEADOR-WOODRUFF; C. WALSS-BASS; R. E. MCCULLUMSMITH*. *Univ. Alabama-Birmingham, Univ. of Texas Hlth. Sci. Ctr.*

1:00 GG2 **254.09** Expression of AMPA receptors and their auxiliary proteins, TARPs, in isolated endoplasmic reticulum and postsynaptic density fractions from postmortem brain in schizophrenia. J. B. DRUMMOND*; V. HAROUTUNIAN; R. E. MCCULLUMSMITH; J. H. MEADOR-WOODRUFF. *Univ. Alabama, Birmingham, Mount Sinai Hosp.*

2:00 GG3 **254.10** Glycoproteome of the schizophrenia brain. J. TUCHOLSKI*; V. HAROUTUNIAN; J. H. MEADOR-WOODRUFF. *Univ. Alabama-Birmingham, Mount Sinai Sch. of Med.*

3:00 GG4 **254.11** ● Neural synchrony patterns and levels of GABA and glutamate/glutamine during working memory task in schizophrenia. R. SO*; F. STEFFEN-ALLEN; L. KEGELES; J. J. CHROBAK; C. A. CHEN. *Univ. of Connecticut, Columbia Univ.*

4:00 GG5 **254.12** ● Working memory performance, oscillatory patterns and levels of GABA and glutamine/glutamate in dorsolateral prefrontal cortex and anterior cingulate cortex in schizophrenia. F. STEFFEN-ALLEN*; R. P. SO; L. S. KEGELES; J. J. CHROBAK; C. A. CHEN. *Univ. of Connecticut, Columbia Univ.*

1:00 GG6 **254.13** OTX2 expression in the human prefrontal cortex during normal postnatal development and in subjects with schizophrenia. K. M. ATHANAS*; S. A. MAUNEY; N. K. SHASKAN; T. W. WOO. *McLean Hosp., McLean Hosp., Harvard Med. Sch., Beth Israel Deaconess Med. Ctr.*

2:00 GG7 **254.14** DNA-Methylation gene network dysregulation in peripheral blood lymphocytes of schizophrenia patients. J. AUTA*; R. SMITH; E. DONG; P. TUETING; H. SERSHEN; S. BOULES; A. LAJTHA; J. DAVIS; A. GUIDOTTI. *Univ. of Illinois At Chicago, Natl. S. Kline institute for Psychiatric Res., Univ. of Illinois at Chicago, Univ. of Illinois at Chicago.*

3:00 GG8 **254.15** Rare susceptibility variants for bipolar disorder: A family-based study. C. CRUCEANU; J. LOPEZ; A. AMBALAVANAN; P. A. DION; N. MECHAWAR*; M. ALDA; G. A. ROULEAU; G. TURECKI. *McGill Univ., Douglas Inst., Montreal Neurolog. Inst., Dalhousie Univ.*

4:00 GG9 **254.16** ● Schizophrenia-associated alterations of microtubule associated protein 2 in human auditory cortex. M. A. SHELTON*; J. T. NEWMAN; K. N. FISH; P. PENZES; D. A. LEWIS; R. A. SWEET. *Univ. of Pittsburgh, Northwestern Univ.*

1:00 GG10 **254.17** Conserved chromosome 2q31 conformations are associated with transcriptional regulation of GABA synthesis enzyme GAD1 and altered in prefrontal cortex of subjects with schizophrenia. Y. JIANG*; S. AKBARIAN. *Mount Sinai Sch. of Med.*

2:00 GG11 **254.18** Case-control and family association study of early growth response gene 3 with schizophrenia. A. L. GALLITANO*; L. MUPPANA; J. CORNEVEAUX; A. M. AHMED; M. HUENTELMAN. *Univ. Arizona COM PHX, Univ. of Arizona Col. of Med. - Phoenix, Translational Genomics Res. Inst., Arizona State Univ.*

3:00 GG12 **254.19** Convergent in silico analysis of genes for interneurons and hypoxia response under the neurodevelopmental hypothesis of schizophrenia. R. SCHMIDT-KASTNER*; M. JOSEPH; K. MCKAIN; J. W. NEWCOMER; J. VAN OS; B. P. F. RUTTEN. *Florida Atlantic Univ. (FAU), Fac. of Health, Med. and Life Sciences, Maastricht Univ. Med. Ctr., European Grad. Sch. of Neurosci. (EURON).*

4:00 GG13 **254.20** Disruption of AKT alters dopamine sensitivity to inhibitory synaptic transmission in the rat prefrontal cortex. Y. LI*; W. GAO. *Drexel Univ. Col. of Med.*

1:00 GG14 **254.21** Chronic haloperidol enhances amphetamine-induced conditioned reward: Contributions of the dorsal and ventral striatum. C. EL HAGE*; J. GUILLEMETTE LAFONTAINE; A. BÉDARD; A. SAMAHA. *Univ. of Montreal, Inst. de gériatrie de l'Univeristé de Montréal.*

2:00 GG15 **254.22** mRNA and miRNA expression profiling of pyramidal, parvalbumin-containing and dopamine neurons in schizophrenia and Parkinson's disease. T. WOO*; K. SONNTAG. *McLean Hosp/Harvard Med. Sch., McLean Hosp., Harvard Med. Sch.*

3:00 GG16 **254.23** Abnormal phospholipids distribution in the postmortem brains from patients with schizophrenia revealed by matrix-assisted laser desorption/ionization imaging mass spectrometry: Usefulness of antemortem psychiatric clinical information in postmortem brain study. J. MATSUMOTO*; Y. KUNII; T. HAYASAKA; M. HINO; A. WADA; H. AKATSU; Y. HASHIZUME; T. YAMAMOTO; S. SATO; H. YABE; M. SETOU; S. NIWA. *Fukushima Med. Univ., Fukushima Med. Univ., Hamamatsu Univ. Sch. of Med., Fukushimura Hosp., Otsuka Pharmaceut. Co. Ltd.*

4:00 GG17 **254.24** Is this really schizophrenia? L. ISLAM*; L. ROMITO; G. TISI; M. CARBONI; S. SCARONE; O. GAMBINI. *Ospedale San Paolo, Inst. Neutologico Carlo Besta, Univ. of Milan Med. Sch., Univ. of Milan Med. school, Univ. of Milan medical school.*

1:00 GG18 **254.25** ● Actin cytoskeleton dysregulation in schizophrenia and bipolar disorder: Relevance to dendritic spine pathology. G. T. KONOPASKE*; S. SUBBURAJU; J. T. COYLE; F. M. BENES. *McLean Hosp.*

2:00 HH1 **254.26** ● Differential distribution of the GABA synthesizing enzymes in somatostatin containing boutons of the monkey prefrontal cortex-implications for schizophrenia. B. ROCCO; D. A. LEWIS; K. FISH*. *Univ. Pittsburgh.*

3:00 HH2 **254.27** The effect of reboxetine and haloperidol on P50 suppression in healthy volunteers. L. M. WITTEN*; B. Y. GLENTHØJ; A. MØRK; B. STEINIGER-BRACH; J. F. BASTLUND; B. ORANJE. *H. Lundbeck A/S, Ctr. for Clin. Intervention and Neuropsychiatric Schizophrenia Res. (CINS) and Ctr. for Neuropsychiatric Schizophrenia Res. (CNSR), Copenhagen Univ. Hospital, Psychiatric Ctr. Glostrup.*

POSTER

255. Schizophrenia and Bipolar Disorder: Animal Models II

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HH3 **255.01** ● An orthosteric mGluR 2/3 Agonist, but not a Positive Allosteric Modulator, enhances acoustic startle response in rodents. R. WILLEMS*; L. VER DONCK. *Janssen Res. & Development, A Div. of Janssen Pharmaceutica NV.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 HH4 **255.02** Chronic ketamine administration induces enhanced mismatch and novelty detection in rats. A. SCHUMACHER*; E. C. TOLLEDO; L. FERGUSON; R. ITO. *Univ. of Toronto Scarborough.*

3:00 HH5 **255.03** Glutathione deficit affects white matter integrity in prefrontal cortex and impairs brain connectivity in schizophrenia. A. MONIN*; P. BAUMANN; A. GRIFFA; L. XIN; R. MEKLE; M. FOURNIER; C. BUTTICAZ; M. KLAEY; J. CABUNGCAL; P. STEULLET; C. FERRARI; M. CUENOD; R. GRUETTER; J. THIRAN; P. HAGMANN; P. CONUS; K. DO. *Ctr. for psychiatric neuroscience and department of psychiatry, CHUV, Service of Gen. Psychiatry and Dept. of Psychiatry, CHUV, Signal Processing Laboratory, EPFL, Lab. for Functional and Metabolic Imaging, EPFL, Physikalisch-Technische Bundesanstalt.*

4:00 HH6 **255.04** A single minocycline administration suppresses methamphetamine-induced behavioral sensitization in mice. T. A. KATO*; S. KANBA; M. YAMATO; T. SHIBA; M. TAKARA; Y. SEKI; M. OHGIDANI; N. SAGATA; Y. YAMAUCHI; Y. MIZOGUCHI; K. YAMADA; A. MONJI. *Kyushu Univ., Kyushu Univ., Kyushu Univ., Saga Univ.*

1:00 HH7 **255.05** Modelling the cognitive function of the confirmed psychosis risk gene ZNF804. J. E. HADDON*; J. EDDY; T. AL-JANABI; M. O'DONOVAN; M. OWEN; L. WILKINSON. *Cardiff Univ.*

2:00 HH8 **255.06** ● Abnormal high frequency oscillations in the nucleus accumbens in the MAM developmental rat model of schizophrenia. S. ANTHARVEDI GODA*; S. KASICKI; M. J. HUNT. *Nencki Inst. of Exptl. Biol.*

3:00 HH9 **255.07** Neuroreceptor mechanisms of antipsychotic sensitization and tolerance. S. CHOU*; M. LI. *Univ. of Nebraska-Lincoln.*

4:00 HH10 **255.08** ● Endocannabinoid-mediated modulation of neuronal correlates of social interaction in saline- and PCP-treated rats. J. MATRICON*; A. SEILLIER; A. GIUFFRIDA. *Univ. of Texas Hlth. Sci. Ctr.*

1:00 HH11 **255.09** Working memory deficits in adult rats after acute elevation of brain kynurenic acid are alleviated by co-administration of the α7 nicotinic positive modulator galantamine. S. A. VUNCK*; K. SUPE; R. SCHWARCZ; J. P. BRUNO. *The Ohio State Univ., Univ. of Maryland Sch. of Med.*

2:00 HH12 **255.10** Chronic prenatal kynurenine elevation in rats: A naturalistic model of schizophrenia with biochemical abnormalities and deficits in hippocampal-mediated learning and memory. A. POCIVAVSEK*; M. A. R. THOMAS; G. I. ELMER; J. P. BRUNO; R. SCHWARCZ. *Univ. of Maryland Sch. of Med., The Ohio State Univ.*

3:00 HH13 **255.11** Prenatal kynurenic acid elevation alters cortical development and prefrontal glutamate release, corresponding to cognitive inflexibility in adults. M. L. PERSHING*; D. BORTZ; A. POCIVAVSEK; P. J. FREDERICKS; B. LEUNER; C. V. JØRGENSEN; R. SCHWARCZ; J. P. BRUNO. *The Ohio State Univ., Univ. of Maryland Sch. of Med., Copenhagen Univ. Hosp.*

4:00 HH14 **255.12** Mesolimbic regulation of prefrontal glutamate release is blocked by local kynurenic acid and restored with oral administration of a kat ii inhibitor. D. M. BORTZ*; R. SCHWARCZ; J. P. BRUNO. *The Ohio State Univ., Univ. of Maryland Sch. of Med.*

1:00 HH15 **255.13** ● Two-hit model of schizophrenia: combining viral and glutamatergic insults. C. SCHIFANI; M. KLEE; B. JANSON; A. RELO; C. KLEIN*; A. Y. BESPALOV. *AbbVie.*

2:00 HH16 **255.14** ▲ Comparison of Valproate acid and Haloperidol effects on excessive dopamine release in the amygdala in response to conditioned fear stress: Methamphetamine-sensitized rats. H. MURAOKA*; M. KAWANO; K. INADA; T. KAWANO; H. OSHIBUCHI; J. MIYAGI; A. KASAI; M. YAMADA; J. ISHIGOOKA. *Tokyo Women'S Med. Univ.*

3:00 HH17 **255.15** The effects of phencyclidine on self-administration of nicotine: A novel hypothesis for the comorbidity of schizophrenia and nicotine abuse. N. SWALVE*; S. PITTENGER; C. CHOU; M. LI. *Univ. of Nebraska- Lincoln, Univ. of Nebraska-Lincoln.*

4:00 HH18 **255.16** ● Early lifetime treatment with phencyclidine induces interneuron dysfunction and cognitive deficits in rats. N. PLATH*; B. V. BROBERG; C. KJÆRBY; A. S. KARLSEN; J. RIISE; P. H. LARSEN; J. P. REDROBE; L. LERDRUP. *Lundbeck A/S, Psychiatric Ctr. Glostrup, Bispebjerg Univ. Hosp.*

1:00 II1 **255.17** Maternal immune activation causes age-specific increase in the number of microglia in offspring in rats. K. SUZUKI*; T. TAKAHASHI; K. YAMADA; Y. IWATA; N. MORI. *Hamamatsu Univ. Sch. of Med.*

2:00 II2 **255.18** ▲ Effects of decreasing cortical GABA transmission on decision-making in rats. A. O'HARA*; B. PLAUT; D. C. LOWES; T. A. PAINE. *Oberlin Col., Oberlin Col.*

3:00 II3 **255.19** Chronic inhibition of cortical GABA synthesis does not impair attention. T. A. PAINE*. *Oberlin Col.*

4:00 II4 **255.20** ● Comparison of scopolamine and MK801 effects on touchscreen based cognitive tasks in rats. T. M. BALLARD*; R. WYLER; T. BURNS. *Neurosci. DTA, Pharma Res. & Early Development, F. Hoffmann-La Roche AG.*

1:00 II5 **255.21** ● Impairments in attentional performance and visual discrimination in the rat MAM model of schizophrenia. D. YOUNG*; W. M. HOWE; R. GRAF; S. M. O'NEILL; T. A. LANZ; R. KOZAK. *Pfizer Inc.*

2:00 II6 **255.22** Perineuronal nets protect fast-spiking interneurons against oxidative stress. P. STEULLET*; J. CABUNGCAL; H. MORISHITA; R. KRAFTSIK; M. CUENOD; T. K. HENSCH; K. Q. DO. *Ctr. For Psychiatric Neurosciences, Icahn Sch. of Med. at Mount Sinai, Univ. of Lausanne, Harvard Univ.*

3:00 II7 **255.23** ● A double-dissociation between the effects of MK-801 and Scopolamine in two touch-screen based tasks of hippocampal dependent spatial memory. J. C. TALPOS*, III; J. OLLEY; T. STECKLER. *Janssen Pharmaceutica NV.*

4:00 II8 **255.24** ● Mice carrying chromosomal microdeletions relevant to schizophrenia and performances on touchscreen tasks of learning and executive functioning. S. R. O. NILSSON; L. M. SAKSIDA*; T. W. ROBBINS; T. J. BUSSEY. *Univ. of Cambridge.*

1:00 II9 **255.25** Modafinil fails to improve neonatal PCP-induced cognitive deficits in rats. S. J. SUKOFF RIZZO; T. A. LANZ; G. LU; A. SHAO; X. YU; S. M. O'NEILL; R. KOZAK*. *Pfizer, WuxiAppTecWuxiApptec Inc.*

2:00 II10 **255.26** Dissecting the perceptual and cognitive profile of subchronic phencyclidine (PCP) administration in the rat using novel touchscreen-based assays. A. C. MAR*; S. BARBER; R. WOOLLEY; L. M. SAKSIDA; T. J. BUSSEY; T. W. ROBBINS. *Univ. of Cambridge, Univ. of Cambridge.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 II11 **255.27** ● Down-regulation of mGluR2 and mGluR6 receptors in the frontal cortex of neonatal phencyclidine(PCP)-treated adult rats, a developmental model of schizophrenia, reflects decreased promotor methylation at histon H3K4me3. M. J. MILLAN; B. CHANRION; E. SCHENKER*; B. P. LOCKHART; C. MANNOURY-LA COUR. *Inst. De Recherches Servier.*

4:00 II12 **255.28** ● Tackling behavioural variability: A case study with the MAM E17 rodent model of schizophrenia. N. N. MALIK*; F. GASTAMBIDE; M. COTEL; B. EASTWOOD; S. FITZJOHN; J. LI; F. PASQUI; K. PHILLIPS; J. SHERWOOD; M. J. O'NEILL; G. GILMOUR; M. TRICKLEBANK. *Lilly Ctr. For Cognitive Neuroscience, Eli Lilly & Co Ltd.*

1:00 II13 **255.29** ● Attentional deficits following postnatal NR1 knock-out in corticolimbic interneurons. M. HVOSLEF-EIDE; L. LYON; A. C. MAR; K. NAKAZAWA; L. M. SAKSIDA; T. J. BUSSEY*. *Univ. of Cambridge, Univ. of Cambridge, NIH.*

POSTER

256. Learning, Memory, Dependence, and Addiction

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 II14 **256.01** Sex differences in the role of brain corticotropin releasing factor (CRF) and norepinephrine (NE) in drug seeking during initial abstinence. A. M. CASON*; A. BOURREZA; M. W. FELTENSTEIN; G. ASTON-JONES. *Med. Univ. South Carolina.*

2:00 II15 **256.02** Role of oxytocin neurons in mediating the behavioral response to early extinction from cocaine self-administration: Comparisons between female and male rats. M. E. SMITH*; A. M. CASON; G. ASTON-JONES. *MUSC.*

3:00 II16 **256.03** ● Dopamine DREADDs: Chemicogenetic control of midbrain dopamine activity during reinstatement of cocaine seeking. S. V. MAHLER*; E. M. VAZEY; G. ASTON-JONES. *Med. Univ. of South Carolina.*

4:00 II17 **256.04** Specific roles of hippocampal and lateral septal neurons in context- vs. cue-induced reinstatement of cocaine seeking: Fos and DREADD studies. E. M. MCGLINCHEY*; G. ASTON-JONES. *Med. Univ. of South Carolina.*

1:00 II18 **256.05** Oxytocin reduces the motivation to self-administer methamphetamine in a novel within-session behavioral-economic paradigm: Male-female comparisons. B. M. COX*; B. S. BENTZLEY; C. M. REICHEL; R. E. SEE; G. ASTON-JONES. *Med. Univ. of South Carolina.*

2:00 JJ1 **256.06** Adaptive demand: DREADD mediated stimulation of locus coeruleus during a within-session behavioral economics procedure. Z. A. COPE*; B. S. BENTZLEY; E. VAZEY; B. L. ROTH; G. S. ASTON-JONES. *Med. Univ. of South Carolina, Univ. of North Carolina at Chapel Hill.*

3:00 JJ2 **256.07** Inactivation of the subthalamic nucleus decreases the economic essential value of cocaine. B. BENTZLEY*; G. ASTON-JONES. *Med. Univ. of SC.*

4:00 JJ3 **256.08** Conditioning with highly palatable food rewards: A role of orexin on attention? L. R. FREEMAN*; G. ASTON-JONES. *Med. Univ. of South Carolina.*

1:00 JJ4 **256.09** ▲ Palatable food entrainment: A model of food addiction in rats. S. GONZALEZ-GARCIA*; S. BLANCAS; G. ESTRADA; M. HERNANDEZ; L. UBALDO; C. ESCOBAR. *UNAM Facultad de Medicina, Facultad de Medicina.*

2:00 JJ5 **256.10** Operant intraoral self-administration of high fructose corn syrup in laboratory rats. A. LEVY*; C. LIMEBEER; J. FERDINAND; U. SHILLINGFORD; L. PARKER; F. LERI. *Univ. of Guelph, Univ. of Guelph.*

3:00 JJ6 **256.11** Prefrontal cortical neuroadaptations following self-administration and reinstatement of highly-palatable food: The role of brain-derived neurotrophic factor. S. M. BARRY*; M. N. HUIZENGA; G. SADRI-VAKILI; J. F. MCGINTY. *Med. Univ. of South Carolina, Massachusetts Gen. Hosp.*

4:00 JJ7 **256.12** Context-induced reinstatement to alcohol seeking after punishment is associated with activation of nucleus accumbens shell projections to lateral hypothalamus. N. J. MARCHANT*; R. RABEI; J. M. BOSSERT; A. BONCI; Y. SHAHAM. *Natl. Inst. On Drug Abuse.*

1:00 JJ8 **256.13** ● Effects of amphetamine exposure during adolescence or adulthood on reward devaluation. E. R. HANKOSKY*; N. M. KOFSKY; C. HONG; J. M. GULLEY. *Univ. Illinois Urbana-Champaign, Univ. Illinois Urbana-Champaign.*

2:00 JJ9 **256.14** Amphetamine exposure during adolescence alters synaptic plasticity in young adulthood via adaptations in dopaminergic signaling. S. KANG*; C. L. COX; J. M. GULLEY. *Univ. of Illinois At Urbana Champaign, Univ. of Illinois At Urbana Champaign, Univ. of Illinois At Urbana Champaign, Univ. of Illinois At Urbana Champaign, Univ. of Illinois At Urbana Champaign.*

3:00 JJ10 **256.15** Repeated oxycodone exposure impairs reversal behavior when contingencies change rapidly. K. M. SEIP-CAMMACK*; M. SHAPIRO. *Icahn Sch. of Med. at Mount Sinai.*

4:00 JJ11 **256.16** L-type calcium channel blockade in the VTA disrupts cocaine-associated contextual memory. M. DEGOULET*; C. E. STELLY; K. AHN; H. MORIKAWA. *Waggoner Ctr. For Alcohol and Addiction Res., Brain Res. Ctr.*

1:00 JJ12 **256.17** ● Modafinil rescues methamphetamine-Induced cognitive deficits in object recognition memory in mice: Role of ERK1/2 phosphorylation in prefrontal cortex. B. GONZALEZ; M. RAINERI; N. COLETTIS; J. CADET; E. GARCIA-RILL; F. J. URBANO; V. BISAGNO*. *ININFA-CONICET, Inst. de Fisiología, Biología Mol. y Neurociencias (Universidad de Buenos Aires–Consejo Nacional de Investigaciones Científicas y Técnicas), NIDA Intramural Program, Univ. of Arkansas for Med. Sci.*

2:00 JJ13 **256.18** Rewarding drug-induced activation of the VTA elicits a long-lasting preferential use of procedural learning strategies. M. HUSSON; M. BAUDONNAT; J. GUILLOU; M. CORIO; D. BÉRACOCHÉA; R. VOUIMBA; V. DAVID*. *Univ. de Bordeaux / CNRS UMR 5287, Oxford Univ., INCIA CNRS UMR 5287.*

3:00 JJ14 **256.19** Characterization of Arc expression in corticolimbic areas associated with cocaine-induced conditioned locomotor activity. Y. ALAGHBAND*; J. F. GUZOWSKI; J. F. MARSHALL. *Univ. of California, Irvine.*

4:00 JJ15 **256.20** Impulsive behavior induced by cocaine is ameliorated by the alpha2A noradrenergic agonist guanfacine in animals performing the 5-choice serial reaction time task. P. M. CALLAHAN*; R. SCHADE; A. V. TERRY, Jr. *Georgia Regents Univ., Small Animal Behavioral Core.*

1:00 JJ16 **256.21** Neuropsychological evaluation of attention and working memory in addicts submitted to psychotherapy and pharmacotherapy. J. E. PANDOSSIO*; S. C. MARQUES. *Univ. of Brasilia.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 JJ17 **256.22** Memory-enhancing function of drug reinforcers: A solution to the cocaine puzzle? F. LERI*; N. RKIEH; B. WINTERS; J. CLOKE. *Univ. Guelph, Univ. of Guelph.*

POSTER

257. Opioids: Neural Mechanisms of Addiction

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJ18 **257.01** Self administration of oxycodone by adolescent and adult mice differentially affects gene expressions in hippocampus. Y. ZHANG*; A. J. BROWNSTEIN; K. NIIKURA; S. D. SCHLUSSMAN; A. HO; J. OTT; M. KREEK. *Rockefeller Univ., Inst. of Psychology, Chinese Acad. of Sci.*

2:00 KK1 **257.02** Extinction of opiate reward reduces dendritic arborization and dendritic spines in the nucleus accumbens core but not shell. G. B. KAPLAN*; K. A. LEITE-MORRIS; K. L. KOBRIN; S. C. HEINRICHS; O. A. MOODY. *Boston Univ. Sch. Med/VA Boston Healthcare, VA Boston Healthcare.*

3:00 KK2 **257.03** Prior morphine exposure blocks oxytocin excitation of nucleus accumbens shell neurons. M. MOADDAB*; B. HYLAND; C. BROWN. *Ctr. For Neuroendocrinology, Dept. of Physiology, Univ. of Otago.*

4:00 KK3 **257.04** Mapping the brain functional and structural connectivity of mu-opioid receptor knock-out mice. A. MECHLING*; T. AREFIN; H. LEE; M. REISERT; S. BEN HAMIDA; J. HENNIG; D. VON ELVERFELDT; B. KIEFFER; L. HARSAN. *Univ. Med. Ctr. Freiburg, Albert-Ludwigs-Universität Freiburg, Ctr. Natl. de Recherche Scientifique/ Institut Natl. de la Santé et de la Recherche Médicale/ Université de Strasbourg, Albert-Ludwigs-Universität Freiburg.*

1:00 KK4 **257.05** Novel mechanism for opioid drug action: Implications of Redox/Methylation signaling. M. S. TRIVEDI*; N. HODGSON; J. SHAH; R. DETH. *Northeastern Univ., Northeastern Univ., Northeastern Univ., Northeastern Univ.*

2:00 KK5 **257.06** Opiate exposure state controls a novel, CaMKIIα/ ERK1/2-dependent molecular opiate reward memory switch in the basolateral amygdala-prefrontal cortical pathway. L. G. ROSEN*; W. J. RUSHLOW; S. R. LAVIOLETTE. *Western Univ., Western Univ., Western Univ.*

3:00 KK6 **257.07** A role of Regulator of G protein signaling 9-2 (RGS9-2) in the Nucleus Accumbens in opiate addiction and analgesia. S. GASPARI*; M. PAPACHATZAKI; M. E. TSIMBANOULI; K. DEISSEROTH; M. LOBO; V. ZACHARIOU. *Univ. of Crete, Stanford Univ., Univ. of Maryland, Icahn Sch. of Med. at Mount Sinai.*

4:00 KK7 **257.08** Exploring morphine reward and changes in opiate-related signaling molecules in the Wistar Kyoto rat. T. S. DENNIS*; K. D. BECK; T. P. COMINSKI; S. A. MORRIS BOBZEAN; R. J. SERVATIUS; L. I. PERROTTI. *Univ. of Texas at Arlington, UMDNJ.*

1:00 KK8 **257.09** Enhanced protein phosphatase 2A (PP2A) activity drives SK2 channel mediated impairment of long term potentiation (LTP) in the hippocampus after context-dependent morphine. A. K. FAKIRA*; G. S. PROTUGAL; Z. MELYAN; D. S. SULZER; J. A. MORON CONCEPCION. *Columbia Univ. Med. Ctr., Columbia Univ. Med. Ctr.*

2:00 LL1 **257.10** Orexin/hypocretin in the ventral tegmental area is necessary for morphine-induced synaptic plasticity of dopamine neurons. C. BAIMEL*; S. L. BORGLAND. *Univ. of British Columbia, Hotchkiss Brain Inst.*

3:00 LL2 **257.11** Chronic morphine and morphine withdrawal dynamically regulate the rpS6 multiple phosphorylation in a brain region-specific manner. A. CICCARELLI; A. CALZA; F. SANTORU; A. CONCAS; M. SASSOE-POGNETTO*; M. GIUSTETTO. *Univ. Torino, Univ. Cagliari.*

4:00 LL3 **257.12** ● Differential effects of hydrocodone, oxycodone, and morphine on the response of D2/D3 dopamine receptors in adolescent mice. M. A. EMERY*; M. L. S. BATES; P. J. WELLMAN; S. EITAN. *Texas A&M Univ.*

1:00 LL4 **257.13** ● Hypocretin-2 receptor antagonism dose-dependently reduces compulsive-like self-administration of heroin in rats allowed extended access. B. E. SCHMEICHEL*; L. F. VENDRUSCOLO; K. K. MISRA; J. E. SCHLOSBURG; C. CONTET; D. E. GRIGORIADIS; G. F. KOOB. *The Scripps Res. Inst., Neurocrine Biosci.*

2:00 LL5 **257.14** Enhanced heroin self-administration is associated with deficit of CREM in NAc core of an animal model of impulsivity. Y. REN*; C. V. MORRIS; H. SZUTORISZ; Y. L. HURD. *The Icahn Sch. of Med. At Mount Sinai.*

3:00 LL6 **257.15** Expression of the superoxide generating NADPH oxidase Nox2 gene in the nucleus accumbens is required for morphine conditioned place preference. M. J. GLASS*; E. OGORODNIK; P. ZHOU; R. L. DAVISSON; C. IADECOLA. *Weill Cornell Med. Col., Weill Cornell Med. Col., Cornell Univ.*

4:00 LL7 **257.16** Girk3 in the ventral tegmental area (VTA): A key determinant of sensitivity to opioid reward-related behavior. L. A. KOTECKI*; M. B. MUNOZ; P. A. SLESINGER; K. WICKMAN. *Univ. of Minnesota, The Salk Inst., Icahn Sch. of Med. at Mount Sinai.*

1:00 LL8 **257.17** Memory consolidation processes engaged by relapse to heroin seeking: Role of noradrenergic locus coeruleus complex. E. L. CUMMINS*; E. BOUGHNER; J. GRANT; K. KENT; T. MACDONALD; D. KWIATKOWSKI; F. LERI. *Univ. Guelph.*

2:00 LL9 **257.18** Pro-opiomelanocortin mRNA expression is selectively altered by ethanol exposure in the rat brain. K. HERNANDEZ FONSECA*; E. CABRERA-MUÑOZ; C. REYES; M. MENDEZ. *Inst. Nacional De Psiquiatría Ramón de La Fuente.*

3:00 LL10 **257.19** Confocal microscopy reveals shrinkage of dopaminergic cell bodies in the ventral tegmental area after access to morphine, but not endomorphin analogs. M. R. NILGES*; J. E. ZADINA. *Tulane Univ. Sch. of Med., Tulane Univ. Sch. of Med., SE LA Veterans Hlth. Care Syst.*

4:00 LL11 **257.20** Impairments of chromatin remodeling and gene expression in the striatum of human heroin abusers. G. EGERVARI*; E. KELLER; Y. L. HURD. *Icahn Sch. of Med. At Mount Sinai, Semmelweis Univ.*

1:00 LL12 **257.21** ● ▲ The effects of repeated morphine exposure on metabotropic glutamate receptor activity in adolescent mice. K. E. SELOFF; M. A. EMERY; M. S. L. BATES; P. J. WELLMAN; S. EITAN*. *Texas A&M Univ.*

POSTER

258. Affective Disorders and Schizophrenia

Theme C: Disorders of the Nervous System

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 MM1 **258.01** IP271973 a novel nonselective mglur7 agonist. A. PILC*; P. P. BRAńSKI; A. BOJARSKI; A. STANKIEWICZ; G. BURNAT; B. CHRUśCICKA. *Inst. of Pharmacol.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 MM2 **258.02** Dehydroevodiamine·HCl improves stress induced memory impairments and depression like behavior in rats. H. KIM*; K. SHIN; K. CHANG; H. CHOI; Y. SUH. *Seoul Natl. University/ Col. of Med., Korea Brain Res. Institute(KBRI), Gachon Univ.*

3:00 MM3 **258.03** Triple tracer receptor occupancy for 5-HT_{1A}, 5-HT_{2A} and D_2 using LC-MS/MS based method in rats. G. BHYRAPUNENI*; V. KANDIKERE; J. THENTU; D. AJJALA; R. ALETI; R. NIROGI. *Suven Life Sci.*

4:00 MM4 **258.04** Amygdala-specific phosphodiesterase 2 knockout controls hippocampal remodeling and fear memory. Y. XU*; C. ZHANG; L. RUAN; T. SHAO; H. ZHANG; J. O'DONNELL. *West Virginia Univ.*

1:00 MM5 **258.05** Translational drug discovery at the University of Sussex. J. R. ATACK*; S. E. WARD. *Univ. of Sussex, Sch. of Life Sci.*

2:00 MM6 **258.06** ● Centrally acting antitussives, possessing inhibitory action on GIRK channels, increase the c-Fos and TH double-immunopositive cells in the ventral tegmental area and locus coeruleus. R. HAMASAKI*; F. SOEDA; K. TAKAHAMA. *Grad. Sch. of Pharmaceut. Sci., Kumamoto Hlth. Sci. Univ.*

3:00 MM7 **258.07** ● Evaluation of novel drug targets for schizophrenia treatment using a model of cortical and basal ganglia circuitry. P. D. ROBERTS*; H. GEERTS; A. SPIROS. *In Silico Biosciences, Inc, In Silico Biosciences, Inc.*

4:00 MM8 **258.08** Nicotinic receptor ligand reduces anxiety and depression-like behaviors after withdrawal from voluntary ethanol drinking in mice. M. A. RONI*; S. RAHMAN. *South Dakota State Univ.*

1:00 MM9 **258.09** SUVN-911, α4β2 antagonist shows antidepressant like activity and addresses the limitation of current antidepressant therapy. V. BENADE*; R. PONNAMANENI; G. BHYRAPUNENI; P. JAYARAJAN; V. GOURA; I. BHATIA; S. TELLA; V. GOYAL; S. PANDEY; S. JANA; A. MOHAMMED; S. VEERAMALLA; R. NIROGI. *Suven Life Sci. Ltd.*

2:00 MM10 **258.10** ● Scopolamine and ketamine attenuate parachlorophenylalanine-induced behavioral despair in a stress-sensitive rat strain. W. A. ECKERT*, III; G. CHEN. *Janssen Res. & Development, L.L.C.*

3:00 NN1 **258.11** ● Activity of serotonin 5-ht1a receptor biased agonists in rat models of depression and syndrome: Superior profile of the post-synaptic preferential agonist, f15599. M. J. O'CALLAGHAN; W. C. LI; R. A. MCARTHUR*; M. VARNEY; A. NEWMAN-TANCREDI. *Cerca Insights, McArthur & Assoc GmbH, Neurolixis,Inc.*

4:00 NN2 **258.12** Antidepressant and anxiolytic profiles of newly synthesized arginine vasopressin V1b receptor antagonists: TASP0233278 and TASP0390325. M. IIJIMA*; T. SHIMAZAKI; K. FUKUMOTO; S. CHAKI. *Taisho Pharmaceut. Co., Ltd.*

1:00 NN3 **258.13** ● *In vitro* and *Ex vivi* profiles of newly synthesized arginine vasopressin V1b receptor antagonists: TASP0233278 and TASP0390325. T. YOSHIMIZU*; T. SHIMAZAKI; K. TOKUGAWA; S. CHAKI. *Taisho Pharmaceut. Co., Ltd.*

2:00 NN4 **258.14** ● Behavioural and Hypnotic effect of the methanolic extract of Annona senegalensis is rats. O. O. SUNDAY*; P. AKINGBALA; O. D. OKOKO. *Univ. of Jos, Univ. of Jos, Univ. of Jos.*

POSTER

259. Striate Cortex: Response Properties I

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 NN5 **259.01** The Tortoise and the Hare: Fast vs. very slow corticogeniculate axons differ in visual response properties. C. R. STOELZEL*; Y. BERESHPOLOVA; J. ZHUANG; J. ALONSO; H. A. SWADLOW. *Univ. of Connecticut, SUNY-Optometry.*

2:00 NN6 **259.02** Layer 4 in primary visual cortex of the awake rabbit: Contrasting properties of simple cells and putative feed-forward inhibitory interneurons. J. ZHUANG*; C. R. STOELZEL; Y. BERESHPOLOVA; J. M. HUFF; X. HEI; J. ALONSO; H. A. SWADLOW. *Univ. of Connecticut, Univ. of California, Davis, SUNY Col. of Optometry.*

3:00 NN7 **259.03** V1 corticogeniculate input to LGN is sustained. Y. I. BERESHPOLOVA*; C. R. STOELZEL; J. ZHUANG; J. ALONSO; H. A. SWADLOW. *Univ. of Connecticut, SUNY-Optometry.*

4:00 NN8 **259.04** The rapid emergence of direction selectivity across all layers of ferret primary visual cortex. N. RITTER*; A. ROY; J. OSIK; S. D. VAN HOOSER. *Brandeis Univ., Brandeis Univ.*

1:00 NN9 **259.05** Flexibility of cortical tuning during development: Insights from training with unnatural motion stimuli. A. ROY*; J. J. OSIK; N. J. RITTER; S. VAN HOOSER. *Brandeis Biol., Brandeis Univ.*

2:00 NN10 **259.06** Reward modulates the task-related hemodynamic signal in primary visual cortex (V1) of alert macaques. M. M. B. CARDOSO; M. BEZLEPKINA; B. R. LIMA; Y. B. SIROTIN; A. DAS*. *Columbia Univ., Champalimaud Fndn, Rockefeller Univ.*

3:00 NN11 **259.07** Spiking activity and not LFP best predicts stimulus-evoked hemodynamics in V1. B. R. LIMA*; M. M. B. CARDOSO; Y. B. SIROTIN; A. DAS. *Columbia Univ., Champalimaud Fndn., Rockefeller Univ.*

4:00 NN12-DP7 **259.08** ● A relativistically-invariant gabor-like filter for receptive field representation in the mammalian visual cortex. S. G. ODAIBO*. *Quantum Lucid Res. Labs., Howard Univ. Hosp.*

1:00 NN13 **259.09** Functional role of acetylcholine in the primary visual cortex of rat. S. SOMA*; S. SHIMEGI; N. SUEMATSU; R. MIZUYAMA; H. SATO. *Osaka Univ., Osaka Univ., Osaka Univ.*

2:00 NN14 **259.10** Dual labeling of figural elements in primary visual cortex. M. CHEN; C. GILBERT; W. LI*. *Beijing Normal Univ., The Rockefeller Univ.*

3:00 NN15 **259.11** Infrequent simple cells in the tree shrew primary visual cortex. J. VEIT*; A. BHATTACHARYYA; R. KRETZ; G. RAINER. *Univ. of Fribourg.*

4:00 NN16 **259.12** Spatial tuning for color and luminance in awake area V1. M. JANSEN*; X. LI; R. LASHGARI; J. KREMKOW; Y. BERESHPOLOVA; H. SWADLOW; Q. ZAIDI; J. ALONSO. *SUNY Col. of Optometry, Univ. of Connecticut, SUNY Col. of Optometry.*

1:00 NN17 **259.13** Convergence of thalamic inputs with multiple receptive fields having different patterns of synchronous spikes optimizes the output reliability and precision of spiny stellate cells in visual cortex. C. F. SABOTTKE*; H. WANG; D. J. SPENCER; T. J. SEJNOWSKI. *Louisiana State Univ., Salk Inst.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 NN18 **259.14** Local cues drive population responses to second-order contour stimuli in macaque V1 and V2. X. AN; H. GONG; J. YIN; X. WANG; Y. PAN; X. ZHANG; Y. LU; Y. YANG; Z. TOTH; N. MCLOUGHLIN; I. SCHIESSL; W. WANG*. *Inst. of Neuroscience, State Key Lab. of Neuroscience,CAS, Key Lab. of Brain Function and Diseases, Sch. of Life Sciences, Univ. of Sci. and Technol. of China, Fac. of Life Science, Univ. of Manchester.*

3:00 OO1 **259.15** Stimulus-dependent gamma-frequency shifting in the macaque v1. K. LAKSHMINARASIMHAN*; N. K. LOGOTHETIS; G. A. KELIRIS. *Baylor Col. of Med., Max-Planck Inst. for Biol. Cybernetics, Univ. of Manchester, Bernstein Ctr. for Computat. Neurosci.*

4:00 OO2 **259.16** Motion integration along a trajectory by neuronal population in alert monkey V1. G. BENVENUTI*; G. S. MASSON; F. CHAVANE. *INT, CNRS.*

1:00 OO3 **259.17** Three distinct types of simple cells in visual cortex: Spatiotemporal receptive field properties derived from natural images. V. TALEBI*; C. L. BAKER. *McGill Univ.*

POSTER

260. Striate Cortex: Plasticity

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 OO4 **260.01** Role of sleep spindle in early visual areas and perceptual learning. J. BANG*; T. WATANABE; Y. SASAKI. *Brown Univ.*

2:00 OO5 **260.02** Development of GABAergic neuron response properties in visual cortex *in-vivo*. S. J. KUHLMAN*; R. ZHANG. *Carnegie Mellon Univ.*

3:00 OO6 **260.03** Combined repetitive Donepezil administration and visual exposure increases visual acuity in rats. M. CHAMOUN*; J. IL KANG; F. HUPPÉ-GOURGUES; E. VAUCHER. *Univ. De Montreal.*

4:00 OO7 **260.04** Environmental experience and visual system development and plasticity: Epigenetic effects. L. BARONCELLI*; I. MANNO; M. SCALI; G. SANSEVERO; L. MAFFEI; A. SALE. *Neurosci. Institute, CNR, Scuola Normale Superiore.*

1:00 OO8 **260.05** Correlating neuronal activity after adaptation-induced-plasticity in V1. L. BACHATENE*; V. BHARMAURIA; S. CATTAN; J. JEYABALARATNAM; S. MOLOTCHNIKOFF. *Univ. De Montréal.*

2:00 OO9 **260.06** Orientation-domains exhibit more plasticity than pinwheel-centers in V1. S. CATTAN*; V. BHARMAURIA; L. BACHATENE; J. JEYABALARATNAM; J. RIBOT; C. MILLERET; S. MOLOTCHNIKOFF. *Sci. Biologiques, Univ. De Montréal, Collège de France.*

3:00 OO10 **260.07** *In vivo* imaging of coordinated excitatory and inhibitory synaptic dynamics on pyramidal cell dendrites. K. L. VILLA*; K. P. BERRY; J. SUBRAMANIAN; J. CHA; P. T. C. SO; E. NEDIVI. *MIT.*

4:00 OO11 **260.08** Cortical enhancement induced by pairing cholinergic system and repetitive exposure to visual stimulus is mediated by GABAergic modulation. J. KANG*; F. HUPPE-GOURGUES; E. VAUCHER. *Montreal Univ.*

1:00 OO12 **260.09** Molecular specificity for synapse and spine stabilization in layer II/III pyramidal neurons in visual cortex. J. SUBRAMANIAN*; J. CHA; P. SO; E. NEDIVI. *MIT, MIT, MIT, MIT.*

2:00 OO13 **260.10** Population receptive field analysis of auditory frequency tuning in early blind individuals. E. HUBER*; J. M. THOMAS; I. FINE. *Univ. of Washington.*

3:00 OO14-DP8 **260.11** The involvement of early visual cortex in tactile discrimination of Braille and visual discriminations of letters in a patient with low vision. A. D. GOUWS*; E. H. SILSON; K. L. HAAK; J. RODGERS; M. CROUCHER; M. HYMERS; H. A. BASELER; G. E. LEGGE; A. B. MORLAND. *YNiC, Univ. of York, Hull-York Med. Sch., Univ. of Minnesota.*

4:00 OO15 **260.12** The effects of retinal degeneration on crossmodal sensory takeover of the visual cortex. M. K. JARVINEN*; R. MORROW; B. SILVEIRA; J. MCEWEN. *Emmanuel Col.*

POSTER

261. Spatial Attention

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 OO16 **261.01** Neural activity in a midbrain cholinergic nucleus, the Ipc, during attention-demanding tasks in chickens. J. SCHWARZ*; D. SRIDHARAN; E. I. KNUDSEN. *Stanford Univ.*

2:00 OO17 **261.02** Beta/gamma cross-frequency interaction as a mechanism of top-down attentional bias. C. G. RICHTER*; W. THOMPSON; C. BOSMAN; P. FRIES. *L'Ecole Normale Superieure, Ernst Struengmann Inst. (ESI) for Neurosci. in Cooperation with Max Planck Society, Karolinska Inst., Univ. of Amsterdam, Donders Inst. for Brain, Cognition and Behaviour.*

3:00 OO18 **261.03** The influence of irrelevant distracters on the detection sensitivity of area MT to small changes in motion direction. P. S. KHAYAT*; J. MARTINEZ-TRUJILLO. *McGill Univ.*

4:00 PP1 **261.04** Spatial attention enhances the saliency of changes in motion direction at the expense of an accurate representation in area MT. V. MEHRPOUR*; J. MARTINEZ-TRUJILLO; S. TREUE. *German Primate Ctr. (DPZ), McGill Univ., Bernstein Ctr. for Computat. Neurosci. (BCCN).*

1:00 PP2 **261.05** Attentional modulation of LGN-V1 connectivity in the macaque monkey. V. L. MOCK*; A. M. BASTOS; J. R. HEMBROOK-SHORT; J. M. HASSE; F. BRIGGS. *Geisel Sch. of Med. At Dartmouth, Univ. of California, Davis, Ernst Strungmann Inst. for Neurosci.*

2:00 PP3 **261.06** Attentional modulation of distinct neuronal populations in primate V1. J. R. HEMBROOK-SHORT*; V. L. MOCK; J. M. HASSE; F. BRIGGS. *Geisel Sch. of Med. at Dartmouth.*

3:00 PP4 **261.07** Increased attentional suppression of cortical LFP with practice time. X. LI*; R. LASHGARI; M. JANSEN; Y. BERESHPOLOVA; H. A. SWADLOW; J. ALONSO. *SUNY Col. of Optometry, Univ. of Connecticut.*

4:00 PP5 **261.08** Predictive power of area V4 local field potentials in determining the state of attention. J. MAYO*; O. GOZEL; J. H. R. MAUNSELL. *Harvard Med. Sch., École Polytechnique Fédérale de Lausanne.*

1:00 PP6 **261.09** Acetylcholine iontophoresed into the lateral intraparietal area enhances neuronal firing and improves the monkey's behavior on a difficult visual search task. X. WANG*; M. ZHANG; M. E. GOLDBERG. *Columbia Univ. Med. Ctr., Inst. of Neuroscience, Chinese Acad. of Sci., New York State Psychiatric Inst.*

2:00 PP7 **261.10** Decoupled neural and behavioral correlates of attention in a dual orientation discrimination task. J. K. BARUNI*; B. LAU; C. D. SALZMAN. *Columbia Univ., Ctr. de Recherche de l'Institut du Cerveau et de la Moelle épinière, New York State Psychiatric Inst.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 PP8 **261.11** Manipulating attention strategy alters patterns of neural gain in human cortex. S. ITTHIPURIPAT*; J. O. GARCIA; N. RUNGRATSAMEETAWEEMANA; T. C. SPRAGUE; J. T. SERENCES. *UCSD, UCSD, Middlebury Col., Middlebury Col.*

4:00 PP9 **261.12** Near real-time spatial reconstructions of visual stimuli with EEG: Exploring the dynamics of spatial attention. J. O. GARCIA*; K. E. KAYE; T. C. SPRAGUE; J. T. SERENCES. *UC San Diego, UC San Diego.*

1:00 PP10 **261.13** The spreading of attentional selection within an object's visual boundaries is a periodic process. I. C. FIEBELKORN*; Y. B. SAALMANN; S. KASTNER. *Princeton Univ.*

2:00 PP11 **261.14** Entrainment of neuronal oscillations as a flexible mechanism controlling visuospatial attention. M. J. GRAY*; H. FREY; J. J. FOXE. *Albert Einstein Col. of Med.*

POSTER

262. Visual Decision Making

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 PP12 **262.01** Characteristics of trial-to-trial spike count variability in MT neurons are consistent with bottom-up components of decision related response modulation. H. KUMANO*; T. UKA. *Juntendo University, Grad. Sch. of Med.*

2:00 PP13 **262.02** Ventral intraparietal (VIP) inactivation does not affect mulitsensory heading perception. E. M. KLIER*; S. LIU; Y. GU; G. C. DEANGELIS; D. E. ANGELAKI. *Baylor Col. of Med., Baylor Col. Med., Chinese Acad. of Sci., Univ. of Rochester.*

3:00 PP14 **262.03** Reward asymmetry modulates perceptual decision-related activity in the monkey prefrontal cortex. L. DING*. *Univ. of Pennsylvania.*

4:00 PP15 **262.04** The representation of object similarity but not choice certainty in LIP. W. S. ONG*; J. W. BISLEY. *Duke Univ., UCLA.*

1:00 PP16 **262.05** Dynamics of sensory information accumulation in LIP during task switching. Y. SUDA*; H. KUMANO; T. UKA. *Juntendo Univ. Grad. Sch. of Med.*

2:00 PP17 **262.06** Target facilitation and distractor suppression in the activity of macaque lateral intraparietal neurons during visual search. S. NISHIDA*; T. TANAKA; T. OGAWA. *Kyoto Univ.*

3:00 PP18 **262.07** Spatial specificity of direction selectivity in the dorsolateral prefrontal cortex during memory-guided direction comparison task. P. REN*; A. BEN-SIMON; P. SPINELLI; T. PASTERNAK, *Univ. of Rochester.*

4:00 PP19 **262.08** Two-photon imaging of population activity in mouse visual cortex during a 2AFC task. C. P. BURGESS*; A. RANSON; K. D. HARRIS; J. F. LINDEN; M. CARANDINI. *UCL Inst. of Ophthalmology, UCL Ear Inst., UCL Inst. of Neurol.*

1:00 PP20 **262.09** Calcium dynamics in layer 1 of mouse visual cortex during sensory behavior. A. RANSON*; C. P. BURGESS; M. CARANDINI; K. D. HARRIS. *UCL Inst. of Ophthalmology, Univ. Col. London, Univ. Col. London.*

2:00 PP21 **262.10** Naturally occurring and experimentally induced choice history biases in human observers. A. ABRAHAMYAN*; J. L. GARDNER. *RIKEN Brain Sci. Inst.*

3:00 PP22 **262.11** Sympathetic and parasympathetic markers of visual awareness: A window into the mind-body interaction. B. R. SHETH*; Z. LI. *Univ. Houston, Univ. Houston.*

4:00 PP23 **262.12** Pupil dilation reflects specific perceptual alternations in a bistable visual illusion. N. A. KLOOSTERMAN*; T. MEINDERTSMA; A. M. VAN LOON; T. H. DONNER. *Univ. of Amsterdam, Cognitive Sci. Ctr. Amsterdam, Univ. of Amsterdam.*

1:00 PP24 **262.13** Pupil dilation reflects the dynamics and content of a perceptual decision. T. H. DONNER*; J. W. DE GEE; T. KNAPEN. *Univ. of Amsterdam.*

2:00 QQ1 **262.14** Certainly you're wrong: A dissociation between neural correlates of stimulus discrimination and confidence in perceptual decisions. G. BUZZELL; J. R. FEDOTA; D. M. ROBERTS; E. SHAW; C. G. MCDONALD*. *George Mason Univ., George Mason Univ.*

3:00 QQ2 **262.15** Brain activity preceding internally generated switches in perception of a bistable structure-from-motion visual stimulus: A MEG study. K. KRUG*; S. BRAEUTIGAM; J. HEATH; A. J. PARKER; N. CICMIL. *Oxford Univ., Oxford Univ.*

4:00 QQ3 **262.16** The role of synaptic depression in a biologically plausible model for percept choices at the onset of ambiguous visual stimuli. R. VAN WEZEL*; C. KLINK; W. WOLDMAN; M. TE WINKEL; S. VAN GILS; H. MEIJER. *Radboud University, Donders Inst. For Brain, Cognition and Behaviour, Netherlands Inst. for Neurosci., Mira Inst. for Biomed. Technol. and Tech. Med.*

1:00 QQ4 **262.17** ▲ Head-restrained marmosets discriminate fine differences in orientation. C. P. CHOW*; J. H. REYNOLDS; C. T. MILLER; J. F. MITCHELL. *UCSD, The Salk Inst.*

2:00 QQ5 **262.18** Developing awake behaving marmosets as a model for visual neuroscience. J. F. MITCHELL*; J. H. REYNOLDS; C. T. MILLER. *Salk Inst., UCSD.*

3:00 QQ6 **262.19** Humans exploit uncertainty and bimodality of priors in motion direction estimation. S. LAQUITAINE*; J. L. GARDNER. *Riken Brain Sci. Inst.*

POSTER

263. Sensorimotor Transformations: Physiology

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 QQ7 **263.01** Precise characterization of dorsal stream neural activity during decision making. J. YATES*; I. PARK; L. K. CORMACK; J. PILLOW; A. C. HUK. *Univ. of Texas At Austin.*

2:00 QQ8 **263.02** Tuning of MST neurons during active steering. S. W. EGGER*; K. H. BRITTEN. *Univ. of California, Davis, Univ. of California, Davis.*

3:00 QQ9 **263.03** Network configuration for task preparation in prefrontal cortex. R. P. HEITZ*; J. D. SCHALL. *Vanderbilt Univ.*

4:00 QQ10 **263.04** ▲ Bilateral modulation of motor systems by the stimulated visual field in an inter-hemispheric transfer task. A. A. OMARI*; V. DIWADKAR; R. WHITE; G. RAMBALDELLI; M. BELLANI; S. SAVAZZI; C. MARZI; P. BRAMBILLA. *Wayne State Univ. Sch. of Med., Univ. of Verona.*

1:00 QQ11 **263.05** Influence of top-down control on selective attention and response selection during motor decision making. P. KLEIN*; A. ZÉNON; A. MOURAUX; S. NOZARADAN; J. DUQUE. *Univ. Catholique De Louvain.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 QQ12 **263.06** Velocity storage mechanism in zebrafish larvae. Y. M. HUANG*; C. CHEN; C. J. BOCKISC; I. OLASAGASTI; G. BERTOLINI; S. NEUHAUSS; K. P. WEBER; D. STRAUMANN. *Neurol. Department, Zurich Univ. Hosp., Univ. of Zurich.*

3:00 QQ13 **263.07** The visual discharge of mirror neurons in monkey PMv is modulated by the gaze direction of the observed agent. G. COUDE*; F. FESTANTE; A. CILIA; V. LOIACOMO; M. BIMBI; L. FOGASSI; P. FERRARI. *Univ. Parma, Dept Neurosci., Univ. Parma, Dept Psychology, Univ. of Parma, Dept Biol.*

4:00 QQ14 **263.08** Cue-dependent action-observation elicited responses in the ventral premotor cortex (area F5) of the macaque monkey. V. PAPADOURAKIS*; V. RAOS. *Univ. of Crete Med. Sch., FORTH/IACM.*

1:00 QQ15 **263.09** Effect of aging on inhibitory mechanisms involved in movement preparation. C. PETITJEAN*. *Univ. Catholique Louvain (UCL).*

2:00 QQ16 **263.10** Neural correlates of action choice and RT in dorsal premotor cortex. C. CHANDRASEKARAN*; D. PEIXOTO; W. T. NEWSOME; K. V. SHENOY. *Stanford Univ., Stanford Univ., Stanford Univ., Champalimaud Neurosci. Programme, Stanford Univ. / HHMI, Stanford Univ., Stanford Univ.*

3:00 QQ17 **263.11** Altered oscillations in EMG variability explain impaired ankle movement control in children during a high-gain visual feedback condition. H. MOON*; C. KIM; M. KWON; Y. CHEN; E. J. FOX; E. A. CHRISTOU. *Univ. of Florida.*

4:00 QQ18 **263.12** Neurons in monkey dorsal premotor cortex are weakly sensitive to eye position when gaze fixation is untrained. B. ALEMAYEHU*; N. PAVLOVSKY; E. C. TYLER-KABARA; S. CHASE; A. BATISTA. *Univ. of Pittsburgh.*

1:00 QQ19 **263.13** Neural correlates of decision formation in PMd in a perceptual discrimination task. D. PEIXOTO*; R. KIANI; C. CHANDRASEKARAN; K. V. SHENOY; W. T. NEWSOME. *Stanford Univ. Sch. of Med., Champalimaud Neurosci. Programme, Stanford Univ., New York Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ. /HHMI.*

2:00 QQ20 **263.14** Visual-motor processing in the central complex of walking *Drosophila.* M. SIZEMORE*; M. H. DICKINSON. *Univ. of Washington.*

3:00 QQ21 **263.15** Neuromuscular recruitment during oculomotor decision-making in human. L. N. KATZ*; J. L. YATES; L. K. CORMACK; A. C. HUK. *The Univ. of Texas At Austin.*

4:00 QQ22 **263.16** MEG during planning of visually-guided pointing movements. H. ALIKHANIAN; G. BLOHM*; W. C. GAETZ; H. C. GOLTZ; J. F. X. DESOUZA; D. O. CHEYNE; J. CRAWFORD. *Queen's Univ., Hosp. for Sick Children Res. Inst., York Univ.*

1:00 QQ23 **263.17** Preparatory components and competitive advantages of Giant Fiber mediated escape takeoffs. C. R. VON REYN*; P. M. BREADS; G. M. CARD. *Janelia Farm Res. Campus, HHMI.*

2:00 QQ24 **263.18** Eye dominance influences triggering action and interhemispheric transfer time: A Behavioural and Electrophysiological study. R. CHAUMILLON*; J. BLOUIN; A. GUILLAUME. *Lab. De Neurosciences Cognitives.*

3:00 QQ25 **263.19** Mirror neurons responding to inaction in the monkey ventral premotor cortex. L. BONINI*; M. MARANESI; A. LIVI; L. FOGASSI; G. RIZZOLATTI. *Italian Inst. of Technol. - Brain Ctr. For Social and Motor Cognition, Univ. of Parma.*

4:00 QQ26 **263.20** Identification and single-trial characterization of visuomotor networks using electrocorticographic (ecog) activity. W. G. COON*; A. GUNDUZ; P. BRUNNER; B. PESARAN; G. SCHALK. *Wadsworth Ctr., State Univ. of New York, Univ. of Florida, Albany Med. Col., Graz Univ. of Technol., New York Univ.*

1:00 RR1 **263.21** Direct sensorimotor matching rather than motor prediction appears to subserve activity in primary motor cortex during action observation. N. GUEUGNEAU*; S. MC CABE; J. I. VILLALTA; V. DELLA-MAGGIORE. *Univ. De Buenos Aires, Univ. De Buenos Aires.*

2:00 RR2 **263.22** Network dynamics of spike-spike interactions within and between frontal and parietal cortex. B. WELLNER*; S. B. SUWAY; H. SCHERBERGER. *German Primate Ctr., Univ. of Pittsburgh.*

3:00 RR3 **263.23** A coherent gate links memory and planning systems in macaque prefrontal cortex. D. A. MARKOWITZ*; B. PESARAN. *New York Univ.*

4:00 RR4 **263.24** Distinct neuronal mechanisms for remembering multiple locations within vs. across visual hemifields. A. MATSUSHIMA*; M. TANAKA. *Dept Physiol, Hokkaido Univ. Sch. Med.*

1:00 RR5 **263.25** Human intracranial recordings during spatial exploration of a virtual environment. J. SNIDER, *; O. J. AHMED, *; E. HALGREN; H. POIZNER; S. S. CASH*. *UCSD, Massachusetts Gen. Hosp. & Harvard Med. Sch., UCSD, UCSD, Mass Genl Hosp.*

2:00 RR6 **263.26** Cortical dynamics during the preparation of antisaccadic and prosaccadic eye movements in humans in a gap paradigm. M. ESCUDERO*; I. CORDONES; C. M. GÓMEZ. *Univ. of Seville.*

POSTER

264. Sensorimotor Transformations: Behavior

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 RR7-DP9 **264.01** Behavioral responses to pulses of light in the Longfin Inshore squid. S. P. HADJISOLOMOU*; A. CHAVARGA; I. ABRAMOV. *Brooklyn College, CUNY.*

2:00 RR8 **264.02** Rhythmical bimanual force production: Homologous and non-homologous muscles. D. M. KENNEDY*; C. WANG; J. B. BOYLE; C. H. SHEA. *Texas A&M Univ., Texas A&M.*

3:00 RR9 **264.03** The allocation of attention during the acquisition of a novel visuo-motor transformation. S. SUELZENBRUECK*. *Leibniz Res. Ctr. For Working Envrn. and Human Factors.*

4:00 RR10 **264.04** Substitutional Reality for research in animal cognition. Y. NAGASAKA*; S. WAKISAKA; T. NOTOYA; N. FUJII. *RIKEN, Brain Sci. Institute, Lab. For Adaptive Intelligence.*

1:00 RR11 **264.05** Chromatic properties of the phototactic response in the larval zebrafish. D. A. GUGGIANA-NILO*; C. RIEGLER; F. ENGERT. *Harvard Univ.*

2:00 RR12 **264.06** Sociality predicts performance in exploratory behavior and sensorimotor gating in African cichlid fish. T. PREUSS*; M. PERKOWSKI; Z. BARANOV; L. DORDULAW; H. NEUMEISTER. *Hunter College, City Univ. of New York.*

3:00 RR13 **264.07** Noise from stochastic reference frame transformations affects decision making. T. MURDISON*; H. LI; G. BLOHM. *Queen's Univ., Canadian Action and Perception Network (CAPnet).*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 RR14 **264.08** Influence of visual feedback on a goal-directed motor sequence: A virtual-reality study of prey capture in larval zebrafish. C. A. TRIVEDI; J. H. BOLLMANN*. *Max Planck for Med. Res., Max-Planck for Med. Res.*

1:00 RR15 **264.09** A shared representation of the space near oneself and another person in the human premotor cortex. C. BROZZOLI*; G. GENTILE; L. BERGOUIGNAN; H. H. EHRSSON. *Karolinska Institutet.*

2:00 RR16 **264.10** Motor cortex resting state functional connectivity in a large sample of healthy aging participants. R. D. SEIDLER*; B. ERDENIZ; V. KOPPELMANS; S. HIRSIGER; S. MERILLAT; L. JÄNCKE. *Univ. Michigan, Univ. Michigan, Univ. of Zurich, Intl. Normal Aging and Plasticity Imaging Ctr. (INAPIC), Univ. of Zurich, Dept. of Psychology.*

3:00 RR17 **264.11** A motor control-learning model enabling stiffness adjustment according to uncertainty of object's weight during load-on task. H. KAMBARA*; H. OGAWA; D. SHIN; Y. KOIKE. *Tokyo Inst. Technol., Japan Sci. and Technol.*

4:00 RR18 **264.12** Sensory anticipation triggers activity in motor cortex. D. REZNIK*; R. MUKAMEL. *Tel-Aviv Univ.*

1:00 RR19 **264.13** Brain network properties of procedural consolidation. S. SAMI*; E. M. ROBERTSON; C. MIALL. *Univ. of Birmingham, Harvard Med. Sch.*

2:00 RR20 **264.14** Sensorimotor adaptation is altered by mood priming. O. L. BOCK*; A. JESSE. *German Sport Univ., German Sport Univ.*

3:00 RR21 **264.15** Distributed action representations revealed with multi-voxel pattern analysis. F. FILIMON*; C. A. RIETH; M. I. SERENO; G. W. COTTRELL. *Max Planck Inst. For Human Develop., UCSD, Birkbeck Univ. of London, UCSD.*

4:00 RR22 **264.16** Updating target locations during continuous body motion. J. J. TRAMPER; W. MEDENDORP*. *Radboud Univ. Nijmegen.*

POSTER

265. Vestibular System: Sensory Coding, Perception, and Navigation

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 RR23 **265.01** Continuous theta-burst stimulation of the right superior temporal gyrus impairs self-motion perception. A. A. TARNUTZER*; A. G. LASKER; D. S. ZEE. *The Johns Hopkins Univ. Sch. of Med.*

2:00 RR24 **265.02** Characterization of central vestibular neuron responses during electrical stimulation delivered by a vestibular prosthesis. D. E. MITCHELL*; C. C. DELLA SANTINA; K. E. CULLEN. *McGill Univ., Johns Hopkins Univ. Sch. of Med.*

3:00 RR25 **265.03** ● Human postural responses to stimulation of individual semicircular canal ampullae changes with head orientation. C. PHILLIPS; C. DEFRANCISCI; L. LING; K. NIE; A. NOWACK; J. O. PHILLIPS*; J. T. RUBINSTEIN. *Univ. of Washington.*

4:00 RR26 **265.04** Statistics of natural vestibular stimuli in monkey: Implications for coding. A. D. SCHNEIDER*; J. CARRIOT; M. J. CHACRON; K. E. CULLEN. *McGill Univ.*

1:00 SS1 **265.05** Impacts of neuronal sensitivity and variability on the encoding of linear self-motion. M. JAMALI*; J. CARRIOT; K. E. CULLEN. *McGill Univ.*

2:00 SS2 **265.06** Efferent control of spike rate variability in the peripheral vestibular system. X. YU*; J. D. DICKMAN; S. NEWLANDS; D. E. ANGELAKI. *Dept. of Neuroscience, Baylor Col. of Med., Dept. of Otolaryngology, Univ. of Rochester Med. Ctr.*

3:00 SS3 **265.07** Vestibular behavioral thresholds for yaw rotation discrimination in rhesus macaques. C. D. GARCIA*; J. D. DICKMAN; D. E. ANGELAKI. *Baylor Col. of Medicine, Neurosci.*

4:00 SS4 **265.08** Reduced choice-related activity and noise correlations accompany deficits of perceptual and neural discrimination thresholds after unilateral vestibular lesion. S. LIU*; J. D. DICKMAN; S. D. NEWLANDS; G. C. DEANGELIS; D. E. ANGELAKI. *Baylor Col. of Med., Univ. of Rochester, Univ. of Rochester.*

1:00 SS5 **265.09** Neuronal ensemble coding in early vestibular pathways during self-motion. A. DALE*; J. CARRIOT; K. E. CULLEN. *McGill Univ.*

2:00 SS6 **265.10** Alpha-band modulations predict the quality of visual stability during whole-body motion. T. P. GUTTELING*; L. P. J. SELEN; W. P. MEDENDORP. *Radboud Univ. Nijmegen.*

3:00 SS7 **265.11** Modeling the influence of visual and vestibular tilt cues on the subjective visual vertical of rhesus monkeys. M. F. KHAZALI*; N. DADDAOUA; P. W. DICKE; P. THIER. *Hertie Inst. For Clin. Brain Res.*

4:00 SS8 **265.12** Head direction-like cells in the primate subiculum and entorhinal cortex. B. KIM*; J. D. DICKMAN; J. S. TAUBE; D. E. ANGELAKI. *Baylor Col. of Med., Baylor Col. of Med., Dartmouth Col.*

1:00 SS9 **265.13** ▲ Head direction signal degradation impairs landmark navigation. S. L. KIRBY; R. E. HARVEY; E. A. GOEBEL; J. R. KOPPEN; D. G. WALLACE; R. M. YODER*. *Indiana - Purdue U Fort Wayne, Northern Illinois Univ., Indiana - Purdue U Fort Wayne.*

2:00 SS10 **265.14** Short-term changes of hippocampal synaptic transmission after bilateral vestibular sensory loss in the rats. J. N. ERON*; V. A. KORSHUNOV. *Inst. of Higher Nervous Activity and Neurophysiol. of RAS.*

POSTER

266. Nociceptors: Molecular and Pharmacological Studies

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 SS11 **266.01** Identification of Kv1.2 antisense RNA, an endogenous long non-coding RNA, in the dorsal root ganglion. Y. TAO*; X. ZHAO; F. E. ATIANJOH; J. ZHAO; L. LIANG; W. WANG; X. GUAN. *Johns Hopkins Univ. Sch. Med.*

2:00 SS12 **266.02** Peripheral nerve injury up-regulates Kv1.2 antisense RNA expression in the injured dorsal root ganglion. J. ZHAO*; X. ZHAO; F. ATIANJOH; L. LIANG; W. WANG; X. GUAN; Y. TAO. *Johns Hopkins Univ.*

3:00 TT1 **266.03** Impaired neuropathic pain and preserved acute pain in rats over-expressing voltage-gated potassium channel subunit Kv1.2 in primary afferent neurons. L. FAN*; J. ZHAO; V. TIWARI; Y. TAO. *Johns Hopkins Univ. Sch. of Medicine/Accm.*

4:00 TT2 **266.04** Over-expression of dorsal root ganglion Kv1.2 AS RNA leads to neuropathic pain symptoms. V. TIWARI*; F. E. ATIANJOH; J. ZHAO; X. ZHAO; L. LIANG; Y. TAO. *The Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 TT3 **266.05** mTOR and its downstream pathway are activated in the dorsal root ganglion and spinal cord after peripheral inflammation, but not after nerve injury. L. LIANG*; B. TAO; L. FAN; M. YASTER; Y. TAO. *Johns Hopkins Univ. Sch. of Med.*

2:00 TT4 **266.06** The oxidized linoleic acid metabolite-cytochrome p450 system is active in biopsies from patients with inflammatory dental pain. S. RUPAREL*; K. HARGREAVES; M. ESKANDER; S. ROWAN; J. DE ALMEIDA; L. ROMAN; M. HENRY. *Univ. of Texas Hlth. Sci. Ctr. At San Antonio, Univ. of Texas Hlth. Sci. Ctr. At San Antonio, Univ. of Texas Hlth. Sci. Ctr. At San Antonio.*

3:00 TT5 **266.07** Oxidative enzyme gene expression after traumatic injury. H. M. BRANDFELLNER*; S. B. RUPAREL; J. A. GELFOND; K. M. HARGREAVES. *Univ. of Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr.*

4:00 TT6 **266.08** Role of endogenous trpv1 agonists in a post-burn pain model of partial-thickness injury. D. GREEN*; S. RUPAREL; L. ROMAN; M. A. HENRY; K. M. HARGREAVES. *Univ. of Texas Hlth. Sci. Ctr. At San Antonio.*

1:00 TT7 **266.09** Nerve growth factor-induced persistent allodynia is mediated by increased TRPV1 activities in rats. M. ESKANDER*; S. RUPAREL; E. POR; A. AKOPIAN; K. HARGREAVES. *UTHSCSA, UTHSCSA.*

2:00 TT8 **266.10** Investigating histone deacetylase four in peripheral sensory neurons. M. CROW*; S. B. MCMAHON. *King's Col. London.*

3:00 TT9 **266.11** ● Advancing the transcriptional profiling of dorsal root ganglia: A novel method to isolate pure neuronal subpopulations. N. RICHARDS*; M. THAKUR; S. MCMURRAY; S. B. MCMAHON. *King's Col. London, Neusentis.*

4:00 TT10 **266.12** Transcriptional landscape of functionally distinct subsets of nociceptors. A. REYNDERS*; S. GAILLARD; S. NIEDELET; S. RIALLE; L. JOURNOT; A. MOQRICH. *Ibdml-Umr6216 CNRS, MGX (Montpellier Genomics).*

1:00 TT11 **266.13** ● Transcriptional and electrophysiological characterization of primary afferent human DRG neurons. A. GERLACH; J. THEILE; M. FULLER; K. YOGER; A. MOSS; B. SIDDERS; M. L. CHAPMAN*. *Pfizer Neusentis, Pfizer Neusentis.*

2:00 TT12 **266.14** Identifying a population of peripheral neurons involved in mechanical hyperalgesia and allodynia in a mouse model of osteoarthritis. L. D. TOWNSON*; M. MINETT; J. WOOD; A. H. DICKENSON. *UCL, UCL.*

3:00 UU1 **266.15** Role of nonpeptidergic subset of primary afferent neurons in inflammatory hypernociception in mice. L. G. PINTO*; G. R. SOUZA; A. H. P. LOPES; J. TALBOT; F. Q. CUNHA; T. M. CUNHA; S. H. FERREIRA. *Univ. of São Paulo.*

4:00 UU2 **266.16** Genetic control of the segregation of sensory neurons innervating ectodermal versus mesodermal/endodermal tissues. F. YANG*; T. TAN; T. HUANG; J. CHRISTIANSON; O. ABDEL SAMAD; Y. LIU; D. ROBERSON; B. M. DAVIS; Q. MA. *Dana-Farber Cancer Inst., Harvard Med. Sch., Univ. of Pittsburgh Med. Ctr., Univ. of Kansas Med. Ctr.*

1:00 UU3 **266.17** Contralateral tactile allodynia from ipsilateral ET-1 injection requires contralateral efferent nerve conduction. G. R. STRICHARTZ*; Y. CHEN; J. C. WANG; A. KHODOROVA. *Pain Res. Center/ BWH, China Med. Univ., Brigham & Women's Hosp.*

2:00 UU4 **266.18** Evidence for spinal atypical PKCs and PI3K involvement in peripheral ET-1's induction of central sensitization. A. KHODOROVA*; G. STRICHARTZ. *Harvard Med. Sch. Brigham and Women's Hosp, Brigham & Women's Hosp.*

3:00 UU5 **266.19** The p75NTR signaling cascade mediates mechanical hyperalgesia induced by nerve growth factor injected into the rat hind paw. G. D. NICOL*; A. KHODOROVA; G. STRICHARTZ. *Indiana Univ. Sch. of Med., Harvard Med. Sch.*

4:00 UU6 **266.20** Role of PCAF in chronic postsurgical pain. Z. MENG*; X. LIU; Y. TIAN; T. GIN; M. T. V. CHAN. *The Chinese Univ. of Hong Kong.*

1:00 UU7 **266.21** Further evidence that activation of AMPK inhibits acute and chronic post-surgical pain. D. V. TILLU*; M. N. ASIEDU; O. K. MELEMEDJIAN; T. M. HUGHES; G. DUSSOR; T. J. PRICE. *Univ. of Arizona.*

2:00 UU8 **266.22** Critical role of local translation and retrograde axonal transport of nascently synthesized CREB in IL-6-induced nociceptive sensitization. O. K. MELEMEDJIAN*; M. N. ASIEDU; J. K. MOY; T. J. PRICE. *Univ. Arizona, Univ. of Arizona.*

3:00 UU9 **266.23** Highly potent agonists reveal Protease Activated Receptor Type 2 (PAR2) -dependent hyperalgesic priming relying on central trkB/aPKC maintenance mechanisms. T. J. PRICE*; D. V. TILLU; M. N. ASIEDU; S. BOITANO; J. VAGNER. *Univ. Arizona, Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

4:00 UU10 **266.24** Nociceptive sensitization by activated Proreinase-activated receptor 2. K. KIDO*; E. MASAKI. *Tohoku Univ. Hospital, Dept. of Dent. Anesthesia.*

1:00 UU11 **266.25** Opioid-induced hyperalgesia contains a peripheral component. M. P. ROWAN*; S. M. BIERBOWER; M. A. ESKANDER; E. D. POR; R. GOMEZ; N. A. JESKE. *Univ. of Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr.*

2:00 UU12 **266.26** Virus-mediated knockdown of Nav1.3 in dorsal root ganglia of diabetic rats alleviates mechanical pain. O. A. SAMAD*; A. M. TAN; S. D. DIB-HAJJ; S. G. WAXMAN. *Yale Univ. and VA CT Healthcare Syst.*

3:00 UU13 **266.27** The functional implications of the differential distribution of NA^+/CA^{2+} exchanger isoforms in rat sensory neurons. N. SCHEFF*; E. YILMAZ; M. S. GOLD. *Univ. of Pittsburgh.*

4:00 UU14 **266.28** Neto protein assembly with kainate receptors in sensory neurons. C. VERNON*; B. A. COPITS; G. T. SWANSON. *Northwestern Univ.*

1:00 UU15 **266.29** Ligand-induced membrane delivery of $P2X_3$ receptor in primary sensory neurons. L. BAO*; X. CHEN; J. ZHU; Y. WANG; X. ZHANG. *Inst. of Biochem. and Cell Biology, Chinese Acad. of Sci., Inst. of Neurosci. and State Key Lab. of Neuroscience, Inst. for Biol. Sciences, Chinese Acad. of Sci.*

POSTER

267. Mechanisms of Neuropathic Pain: Neurotrophins and Neurotransmitters

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 UU16 **267.01** Neurotropin suppresses lidocaine-induced neurotoxicity in cultured dorsal root ganglion neurons. R. ISONAKA*; T. TAKENAMI; T. KATAKURA; T. KAWAKAMI. *Kitasato Univ. Sch. of Med., Kitasato Univ. Sch. of Med.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 UU17 **267.02** NMDA receptors in primary afferents are potentiated by BDNF released by microglia during the induction of neuropathic pain. J. G. MARVIZON*; W. CHEN; H. S. ENNES; W. WALWYN; J. A. MCROBERTS. *UCLA, UCLA.*

3:00 UU18 **267.03** BDNF increases NMDA receptor currents in primary afferent neurons by inducing phosphorylation of Tyr1472 of the NR2B subunit. J. A. MCROBERTS*; W. WALWYN; H. S. ENNES; W. CHEN; J. MARVIZON. *UCLA, UCLA.*

4:00 UU19 **267.04** A role for spinal brain-derived neurotrophic factor in persistent pain in a rat model of mechanical facet joint injury. J. KRAS*; C. WEISSHAAR; J. QUINDLEN; B. WINKELSTEIN. *Univ. of Pennsylvania.*

1:00 UU20 **267.05** ● Painful whole body vibration induces increased expression of nerve growth factor & brain-derived neurotrophic factor in cervical intervertebral discs in a rat model. M. E. ZEEMAN; S. KARTHA; H. A. BAIG; B. B. GUARINO; B. A. WINKELSTEIN*. *Univ. Pennsylvania.*

2:00 UU21 **267.06** Methylation of BDNF genes in rat oro-facial neuropathic pain model~possible biomarker of neuropathic pain in the future~. A. NAKAE*; K. NAKAI; T. TANAKA; Y. ISHIDA; S. ISHINO; K. HOSOKAWA; T. MASHIMO; Y. FUJINO. *Osaka Univ. Grad. Sch. of Med.*

3:00 UU22 **267.07** The role of AT1 R in the development of pain hypersensitivity after peripheral nerve injury. N. KALYNOVSKA; M. DIALLO; J. PALECEK*. *Inst. of Physiol.*

4:00 UU23 **267.08** Application of Angiotensin II-Receptor 1 antagonist (Losartan) attenuates spinal cord neuroinflammation in a model of neuropathic pain. M. S. DIALLO*; N. KALYNOVSKA; J. PALECEK. *Acad. of Sci. of Czech Republic.*

1:00 UU24 **267.09** Chronic neuropathic pain provokes adaptive changes in the response of endogenous pain inhibition in rats. A. PARENT*; P. TETREAULT; M. ROUX; K. BELLEVILLE; C. AURAY-BLAIS; P. GOFFAUX; P. SARRET. *Univ. de Sherbrooke, Univ. de Sherbrooke, Univ. de Sherbrooke.*

2:00 UU25 **267.10** Tmem35 (tuf1): A novel factor in pain pathway? B. C. KENNEDY; J. G. DIMOVA; K. H. REISE; P. MARELL; W. VON HOHENBERG; J. C. GEWIRTZ; P. V. TRAN*. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

3:00 UU26 **267.11** Increased responses to glutamate in dorsal root ganglion (DRG) neurons after peripheral nerve injury. K. GONG*; A. BHARGAVA; L. KUNG; P. T. OHARA; L. JASMIN. *Univ. of California San Francisco, Univ. of California San Francisco, Univ. of California San Francisco.*

4:00 VV1 **267.12** Peripheral nerve injury reduces efficacy of gabapentin on neurotransmitter release in the prefrontal cortex and locus coeruleus. T. SUTO*; J. C. EISENACH; K. HAYASHIDA. *Wake Forest Univ. Shcool of Med.*

1:00 VV2 **267.13** Somatostatin and its 2A receptor in dorsal root ganglia and dorsal horn of mice and man: Expression, trafficking and possible role in pain. T. SHI*; M. ZHANG; Q. XIANG; S. BARDE; K. FRIED; S. SCHULZ; T. HÖKFELT. *Dept. of Dent. Medicine, Karolinska Institutet, Harbin Inst. of Technol., Dept. of Neuroscience, Karolinska Institutet, Friedrich Schiller Univ. Jena.*

2:00 VV3 **267.14** Pituitary adenylate-cyclase activating polypeptide (PACAP) is possibly regulated by RE1-silencing transcription factor (REST/NRSF) isoform in neuropathic pain. Y. SHUDO*; M. SHIMOJO; S. ITO. *Kansai Med. Univ.*

3:00 VV4 **267.15** Differential effects of natural rewards and pain on vesicular glutamate transporter (VGLUT) expression in the nucleus accumbens (NAc). M. LEE*; D. TUKEY; D. XU; S. EBERLE; Y. GOFFER; E. ZIFF; J. WANG. *NYU Sch. of Med., Columbia Univ. Col. of Physicians and Surgeons.*

4:00 VV5 **267.16** Activation of nerve growth factor-TrkA signaling in dorsal root ganglion in paclitaxel-induced peripheral neuropathy. H. ZHANG*; Y. LI; P. DOUGHERTY. *UT MD Anderson Cancer Ctr., UT MD Anderson Cancer Ctr.*

POSTER

268. Pain Imaging and Perception II

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 VV6 **268.01** Differential relationship between insular gray matter volume, pain sensitivity and cognitive performance in younger and older fibromyalgia patients. M. CEKO*; M. C. BUSHNELL; M. FITZCHARLES; P. SCHWEINHARDT. *McGill Univ., NCCAM, NIH.*

2:00 VV7 **268.02** Integration of pain and reward in decision making: An fMRI study. M. MARUYAMA*; W. YOSHIDA; S. ISHII; B. SEYMOUR. *Advanced Telecommunications Res. Inst. Intl., Kyoto Univ., Natl. Inst. for Information and Communications Technol., Univ. of Cambridge.*

3:00 VV8 **268.03** Long-lasting effect of transcranial direct current stimulation (tDCS) in healthy subjects: An evoked potential study. M. HUNG*; J. HSIEH; D. M. NIDDAM. *Natl. Yang-Ming Univ., Dept. of Med. Res. and Educ.*

4:00 VV9 **268.04** ▲ Neuronal activity in the precuneus and superior temporal gyrus during the initial experience of pain predicts exaggerated pain at recall. L. LAGRANDEUR*; J. PLOURDE-GAUTHIER; K. DAIGLE; G. LÉONARD; P. GOFFAUX. *Ctr. Hospitalier Universitaire De Sherbrooke (CHUS).*

1:00 VV10 **268.05** Disrupted brain circuitry for reward/punishment in fibromyalgia. M. L. LOGGIA*; C. BERNA; J. KIM; C. CAHALAN; R. L. GOLLUB; A. D. WASAN; R. E. HARRIS; R. R. EDWARDS; V. NAPADOW. *Massachusetts Gen. Hosp. / Harvard Med. Sch., MGH/HMS, Massachusetts Gen. Hosp. / Harvard Med. Sch., Brigham and Women's Hosp. / Harvard Med. Sch., Mass. Gen. Hosp. / Harvard Med. Sch., Univ. of Michigan, Mass. Gen. Hosp. / Harvard Med. Sch.*

2:00 VV11 **268.06** ● Further evidence for sensory hypersensitivity in fibromyalgia: Sensitivity to visual stimuli and response to pregabalin. E. ICHESCO; A. KAIRYS; E. CHANG; G. RAMIREZ; D. J. CLAUW; R. E. HARRIS; S. E. HARTE*. *Univ. of Michigan, Univ. of Michigan.*

3:00 VV12 **268.07** Inverted medial prefrontal response during pain facial expression in chronic pain patients. E. VACHON-PRESSEAU*; M. ROY; M. KUNZ; M. MARTEL; M. J. SULLIVAN; T. D. WAGER; P. L. JACKSON; P. RAINVILLE. *Univ. de Montreal, Univ. of Colorado Boulder, Bamberg Univ., Harvard Med. Sch., McGill Univ., Univ. of Colorado Boulder, Univ. Laval, Univ. de Montréal.*

4:00 VV13 **268.08** Common representation of motor and pain processing in human cerebellum. G. MISRA*; S. A. COOMBES. *Univ. of Florida, Univ. of Florida.*

1:00 VV14 **268.09** Does the PAG mediate distraction-based analgesia? W. E. RUSSELL; A. E. PICKERING*; J. BROOKS. *Univ. of Bristol, Univ. of Bristol, Univ. of Bristol.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 VV15 **268.10** The effect of placebo on the modulations of spontaneous oscillatory activity to tonic muscle pain. L. LI*; L. HU; H. WANG; X. KE; Y. YUAN; X. LIU; Y. QIU. *Shenzhen Inst. of Advanced Technology, Chinese Acad. of Sci., Southwest Univ., 2nd Clin. Med. Col. of Jinan University, Shenzhen People's Hosp.*

3:00 VV16 **268.11** Neurophysiological correlates of tonic pain. E. SCHULZ; L. TIEMANN; M. POSTORINO; M. PLONER*. *TU Muenchen.*

4:00 VV17 **268.12** Functional MRI mapping of nociceptive cold and tactile activations in somatosensory areas in anesthetized monkeys. P. YANG*; L. CHEN. *Vanderbilt Univ., Vanderbilt Univ.*

1:00 VV18 **268.13** Differences in cortical activation patterns during pain with short and long durations and the effect of mental stress. R. RINGLER*; P. V.D. KEYLEN; K. DETMAR; R. LOOSE; C. FORSTER. *Univ. of Appl. Sci., Univ. of Erlangen-Nuremberg, Clin. Ctr. of Nuremberg, Univ. of Erlangen-Nuremberg.*

2:00 VV19 **268.14** Increased acute pain behaviors in severe Alzheimer's patients are associated with reduced functional connectivity to sensory and modulatory pain structures. P. A. BEACH*; M. MIRANDA; K. SWANIC; L. L. SYMONDS; D. C. ZHU; A. BOZOKI. *Michigan State Univ., Michigan State Univ., Michigan State Univ., Michigan State Univ., Michigan State Univ.*

3:00 VV20 **268.15** Functional tracing by frequency coding reveals convergence in painful and pleasant touch pathways. L. S. LOKEN*; E. DUFF; I. TRACEY. *Univ. of Oxford.*

4:00 VV21 **268.16** Three days of MRI restraint training for imaging of awake rats causes stress-induced analgesia and decreases in exploratory behavior. L. LOW*; A. LE; L. HYSON; M. BUSHNELL. *Natl. Inst. of Health/NCCAM.*

1:00 VV22 **268.17** Context-dependent brain responses to acupuncture needle: Pain-relieving practice or pain-evoking needling. I. LEE*; T. LEE; H. LEE; C. WALLRAVEN; Y. CHAE. *Kyung Hee Univ., Dept. of Brain Computer Engineering, Korea Univ.*

2:00 WW1 **268.18** Orbitofrontal cortex mediates pain modulation by monetary reward. S. BECKER*; W. GANDHI; F. POMARES; P. SCHWEINHARDT. *Central Inst. of Mental Health, Univ. of Heidelberg, McGill Univ.*

3:00 WW2 **268.19** Learning-related signals in the human spinal cord. F. EIPPERT*; J. C. W. BROOKS; Y. KONG; J. X. O'REILLY; J. FINSTERBUSCH; I. TRACEY. *Univ. of Oxford, Univ. of Bristol, Univ. Med. Ctr. Hamburg-Eppendorf.*

4:00 WW3 **268.20** ● A study on instability of pain perception threshold. S. FUKASAWA*; S. IDE; H. EDA. *Grad. Sch. For GPI, TOYORESIN corporation.*

1:00 WW4 **268.21** Mind wandering during painful stimulation engages the default mode and antinociceptive networks. A. KUCYI*; T. V. SALOMONS; K. D. DAVIS. *Univ. of Toronto, Toronto Western Res. Inst., Univ. Hlth. Network, Univ. of Toronto, Toronto Western Res. Inst.*

2:00 WW5 **268.22** ● Identification of imaging biomarkers of pain using fMRI in awake Trpv1 knock-out and wild-type rats. J. R. YEE*; W. KENKEL; K. GAMBER; P. SIMMONS; M. NEDELMAN; P. KULKARNI; C. F. FERRIS. *Northeastern Univ., SAGE Labs, Ekam Imaging.*

3:00 WW6 **268.23** Perceptual learning of cutaneous thermal sensation. H. MANO*; W. YOSHIDA; K. SHIBATA; S. ZHANG; M. KOLTZENBURG; M. LENGYEL; M. KAWATO; B. SEYMOUR. *Nict/Cinet, Advanced Telecommunications Res. Inst. Intl. (ATR), Brown Univ., UCL, Univ. of Cambridge.*

POSTER

269. Tactile Sensation and Plasticity in Humans

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 WW7 **269.01** Superior tactile sensibility in sports involving ball handling. M. MAETOMO*; Y. UCHIDA; K. KANOSUE. *Grad. Sch. of Sport Sciences, Waseda Univ., Meijo Univ., Waseda Univ.*

2:00 WW8 **269.02** Age-related decline in tactile perception is delayed by dexterous use of hands at work - an ERP study. E. REUTER*; C. VOELCKER-REHAGE; S. VIELUF; A. H. WINNECKE; B. GODDE. *Jacobs Univ. Bremen, Jacobs Univ. Bremen, Saarland Univ.*

3:00 WW9 **269.03** The Tool Ownership Illusion: Motor experience facilitates incorporation of a tool. L. CARDINALI*; A. C. ROY; J. C. CULHAM; A. FARNÈ. *The Brain and Mind Institute, Western Univ., L2C2 – Inst. des Sci. Cognitives, UMR 5230 CNRS/UCBL, 3. Lyon Neurosci. Res. Center, ImpAct Team.*

4:00 WW10 **269.04** Shifting somatosensory detection thresholds with transcranial alternating current stimulation in a phasic manner. C. GUNDLACH*; M. M. MÜLLER; T. NIERHAUS; A. VILLRINGER; B. SEHM. *Max Planck Inst. for Human Cognitive and Brain Sci., Univ. of Leipzig.*

1:00 WW11 **269.05** Direct visualization of cns sensory network damage in the pediatric brachial plexus injury patient: an bold fmri and fcmri study under 3t. R. LI*; J. A. MACHOL, IV; N. FLUGSTAD; X. LIU; J. YAN; H. S. MATLOUB; J. S. HYDE. *Med. Col. of Wisconsin, Med. Col. of Wisconsin, Med. Col. of Wisconsin.*

2:00 WW12 **269.06** Sensory discrimination and adaptation reflect reorganization in primary somatosensory cortex in carpal tunnel syndrome. N. W. KETTNER*; Y. MAEDA; J. HOLDEN; J. LEE; J. KIM; S. CINA; C. MALATESTA; J. GERBER; C. MCMANUS; J. IM; A. LIBBY; P. MEZZACAPPA; R. ONG-SUTHERLAND; L. R. MORSE; K. PARK; J. AUDETTE; M. TOMMERDAHL; V. NAPADOW. *Logan Col. of Chiropractic/University Programs, Athinoula A. Martinos Ctr. for Biomed. Imaging,Massachusetts Gen. Hosp., Univ. of North Carolina at Chapel Hill, Kyung Hee Univ., Spaulding Rehabil. Hosp., Spaulding Rehabil. Hosp., Harvard Med. Sch., Harvard Vanguard Med. Associates, Atrius Hlth.*

3:00 WW13 **269.07** The effect of task instructions on haptic texture processing. J. ECK*; A. L. KAAS; J. L. MULDERS; L. HAUSFELD; Z. KOURTZI; R. GOEBEL. *Maastricht Univ., Brain Innovation B.V., Univ. of Birmingham, Katholieke Univ. Leuven, Netherlands Inst. for Neurosci.*

4:00 WW14 **269.08** Tracing hand localization in humans: Intracortical responses to median nerve stimulation. F. CARUANA; P. AVANZINI; R. O. ABDOLLAHI; I. SARTORI; R. MAI; G. LO RUSSO; G. RIZZOLATTI; G. A. ORBAN*. *Italian institute of Technol., Univ. of Parma, KU leuven, Leuven, Belgium, Ospedale Niguarda-Ca' Granda.*

1:00 WW15 **269.09** Leg somatotopy in the primary somatosensory cortex: A 7 Tesla fMRI study in humans. M. AKSELROD*; R. MARTUZZI; W. VAN DER ZWAAG; J. SULZER; R. GASSERT; O. BLANKE. *EPFL, ETHZ.*

2:00 WW16 **269.10** Tactile localization during self-generated and passive arm movements. F. MAIJ*; A. M. WING; P. MEDENDORP. *Radboud Univ., Univ. of Birmingham.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

270. Basal Ganglia: Physiology

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 WW17 **270.01** ERK/MAPK signaling during striatonigral (direct) pathway development is required for normal motor control. S. R. HUTTON*; Y. WU; W. D. SNIDER. *Univ. North Carolina.*

2:00 WW18 **270.02** Representation of the aversive information in the primate caudate. Y. UEDA*; K. TOKITA; K. NAKAMURA. *Kansai Med. Univ.*

3:00 WW19 **270.03** Neurotensin receptor type 1 in the nucleus accumbens regulates locomotor activity. C. ADAMS*; D. J. HINTON; A. OLIVEROS; D. CHOI. *Mayo Clin.*

4:00 WW20 **270.04** Discerning linear and nonlinear dynamics in the corticostriatal motor system with Kernel Granger causality. A. MURPHY-NAKHNIKIAN*; G. V. REBEC; L. L. DWIEL; L. M. GRASSE; Z. P. TRITSCH; J. M. BEGGS. *Indiana Univ., Indiana Univ.*

1:00 WW21 **270.05** Naturalistic burst stimulation drives opposing patterns of heterosynaptic plasticity at two inputs to a songbird motor cortex analogue. W. H. MEHAFFEY*; A. J. DOUPE. *UCSF, Ctr. for Integrative Neurosci., UCSF.*

2:00 WW22 **270.06** Intrinsic feedback pathways shape the basal ganglia output and modulate voluntary movement. J. BROWN*; J. T. DUDMAN. *Janelia Farm Res. Campus, HHMI.*

3:00 XX1 **270.07** Functional dissection of the cortical control of direct versus indirect pathways in the striatum. J. R. KLUG*; F. OSAKADA; E. M. CALLAWAY; X. JIN. *Salk Inst. for Biol. Studies, Salk Inst. for Biol. Studies, Salk Inst. for Biol. Studies.*

4:00 XX2 **270.08** ● Modulation of the excitability of hindlimb motoneurons by the basal ganglia efferents to the brainstem in relation to the control of postural muscle tone and locomotion in the decerebrate cat. K. TAKAKUSAKI*; T. NOZU; T. OKUMURA. *Asahikawa Med. Univ., Asahikawa Med. Univ., Asahikawa Med. Univ.*

1:00 XX3 **270.09** Study of the physiology of the thalamostriatal system using optogenetics in nonhuman primates. A. GALVAN*; X. HU; Y. SMITH; T. WICHMANN. *Emory Univ.*

2:00 XX4 **270.10** Type III-Nrg1/ErbB4 signaling within the nucleus accumbens. I. OBIORAH*; L. W. ROLE; D. A. TALMAGE. *Stony Brook Univ., Stony Brook Univ., Stony Brook Univ.*

3:00 XX5 **270.11** Functional connectivity between the cerebellum and basal ganglia in a songbird. L. PIDOUX; C. LEVENES; D. DUBAYLE; A. LEBLOIS*. *CNRS / Univ. Paris Descartes.*

4:00 XX6 **270.12** Effects of caged-dopamine photolysis on spike-timing dependent long-term depression in mice striatal neurons. M. OCHI-SHINDOU*; T. SHINDOU; J. R. WICKENS. *Okinawa Inst. of Sci. & Tech.*

1:00 XX7 **270.13** Long-term potentiation of external globus pallidus-subthalamic nucleus synapses following activation of motor cortical inputs. H. CHU; M. D. BEVAN*. *Northwestern Univ.*

2:00 XX8 **270.14** The relative role of thalamic and cortical afferents in driving cholinergic interneuron-evoked striatal dopamine release. P. KOSILLO*; S. THRELFELL; S. CRAGG. *Univ. of Oxford, Univ. of Oxford.*

3:00 XX9 **270.15** Heterosynaptic ltp of identified gabaergic inputs onto dopaminergic neurons. D. SIMMONS*; C. PALADINI. *Univ. of Texas At San Antonio.*

4:00 XX10 **270.16** ▲ Cholinergic modulation of corticostriatal synaptic response of direct and indirect projection neurons. M. B. PEREZ-RAMIREZ*; D. TAPIA; J. BARGAS; E. GALARRAGA. *INSTITUTO DE FISIOLOGIA CELULAR.*

1:00 XX11 **270.17** Optogenetic inhibition of the primate nigro-collicular connection and its effects on saccadic eye movements. H. F. KIM; M. YASUDA; E. S. BOYDEN; O. HIKOSAKA*. *Natl. Eye Inst., NIH, MIT.*

2:00 XX12 **270.18** Synaptic activation of dendritic plateaus in medium spiny neurons - role of GABAergic inputs. K. DU*; J. HELLGREN KOTALESKI. *Karolinska Inst., KTH Royal Inst. of Technol.*

3:00 YY1 **270.19** Consequences caused in the neuronal activity of the putamen by an enhancer stimulus. M. MONTES LOURIDO*; A. F. VICENTE; M. A. BERMUDEZ; M. C. ROMERO; R. PEREZ; F. GONZALEZ. *Univ. De Santiago De Compostela, Dept. of Physiology. Univ. of Santiago de Compostela, Dept. of Ophthalmology, Hosp. da Barbanza, Dept. of Ophthalmology, Univ. Hosp.*

4:00 YY2 **270.20** Regulation of NMDAR-dependent burst firing in midbrain dopaminergic neurons by glycine release from glia. G. M. BEAUDOIN*, III; C. A. PALADINI. *Univ. of Texas San Antonio.*

1:00 YY3 **270.21** Cerebellar modulation of corticostriatal plasticity. C. H. CHEN*; E. ARTEAGA-BRACHO; K. KHODAKHAH. *Albert Einstein Col. of Med.*

2:00 YY4 **270.22** Intrinsic and synaptic properties of subthalamic nucleus neurons in BACHD mice. J. F. ATHERTON*; E. L. MCIVER; M. D. BEVAN. *Northwestern Univ.*

3:00 YY5 **270.23** Identification and characterization of neuronal subpopulations in the GPe using transgenic mice. K. J. MASTRO; R. S. BOUCHARD; C. WINKLER; A. H. GITTIS*. *Univ. of Pittsburgh, Carnegie Mellon Univ., Carnegie Mellon Univ., Carnegie Mellon Univ.*

4:00 YY6 **270.24** Connectional evidence for multiple basal ganglia grasping loops in the macaque monkey. M. GERBELLA; E. BORRA; S. ROZZI; G. LUPPINO*. *Univ. of Parma, Rete Multidisciplinare Tecnologica, Italian Inst. of Technol., Italian Inst. of Technol.*

1:00 YY7 **270.25** FACS-array profiling identifies Ecto-5' nucleotidase as a striatopallidal neuron-specific gene involved in striatal-dependent learning. S. N. SCHIFFMANN*; S. ENA; J. DE BACKER; A. DE KERCHOVE D'EXAERDE. *Univ. Libre De Bruxelles (ULB).*

2:00 YY8 **270.26** Midbrain dopaminergic neurons acquire GABA through plasma membrane uptake, not synthesis. N. X. TRITSCH*; W. OH; C. GU; B. L. SABATINI. *Harvard Med. School, HHMI, Harvard Med. Sch.*

3:00 YY9 **270.27** Chronic pain reduces motivation through depression of the indirect pathway. N. SCHWARTZ*; S. JURADO; B. K. LIM; J. S. POLEPALLI; R. C. MALENKA. *Nancy Pritzker Laboratory, Stanford Univ. Sch. of Med.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

271. Voluntary Motor Control: Finger and Grasp

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 YY10 **271.01** Non-linear dynamical analysis of EEG time series distinguishes patients with Parkinson's disease from healthy individuals. C. LAINSCSEK; M. E. HERNANDEZ; J. WEYHENMEYER; T. J. SEJNOWSKI; H. POIZNER*. *The Salk Inst. for Biol. Studies, UCSD, Indiana Univ. Sch. of Med., Univ. Calif, San Diego.*

2:00 YY11 **271.02** Non-linear dynamical classification of short time series of the Rossler system in high noise regimes. C. LAINSCSEK; M. E. HERNANDEZ; J. WEYHENMEYER; H. POIZNER; T. J. SEJNOWSKI*. *The Salk Inst. for Biol. Studies, UCSD, UCSD, Indiana Univ., Howard Hughes Med. Inst., UCSD.*

3:00 YY12 **271.03** Position-dependent modulation of digit forces: Temporal evolution of anticipatory and feedback control interactions. Q. FU*; M. SANTELLO. *Arizona State Univ.*

4:00 ZZ1 **271.04** Feature extraction from grip force for identification of sensorimotor control processes. K. MOJTAHEDI*; M. SANTELLO. *Arizona State Univ., Arizona State Univ.*

1:00 ZZ2 **271.05** Parallel processes underlie learning of skilled tool use: Retention and interference. M. SANTELLO*; Q. FU. *Arizona State Univ.*

2:00 ZZ3 **271.06** Motor commands distort perception of relative fingertip position. D. SHIBATA*; A. M. L. KAPPERS; M. SANTELLO. *Arizona State Univ., VU Univ. Amsterdam.*

3:00 ZZ4 **271.07** Role of anterior intraparietal sulcus in dexterous manipulation. P. MCGURRIN*; P. PARIKH; M. DAVARE; M. SANTELLO. *Arizona State Univ., Arizona State Univ., Univ. Col. of London.*

4:00 ZZ5 **271.08** Reach-to-grasp: A single movement of the entire upper extremity. A. G. ROUSE*; A. T. ROUSSIN; M. H. SCHIEBER. *Univ. of Rochester Med. Ctr.*

1:00 ZZ6 **271.09** Reach-to-grasp: EMG activity in both proximal and distal muscles is related to both location and object. M. H. SCHIEBER*; A. T. ROUSSIN; A. G. ROUSE. *Univ. of Rochester.*

2:00 ZZ7 **271.10** Pre-tensioning of musculotendons is necessary to achieve finger postures and slow finger motions. S. BABIKIAN*; E. KANSO; F. J. VALERO-CUEVAS. *USC, USC, USC, Univ. of Southern Calfornia.*

3:00 ZZ8 **271.11** Compensating for discrete contact forces through grip force modulation and choice of contact location. J. S. DIAMOND*; J. Y. NASHED; J. R. FLANAGAN. *Queen's Univ. Ctr. For Neurosci. Studies, Queen's Univ.*

4:00 ZZ9 **271.12** Motor control of the arm during voluntary collisions in inverted gravity field. V. THEATE*; C. PONSELET; T. JEAN-LOUIS; L. PHILIPPE. *Univ. Catholique De Louvain, Univ. Catholique De Louvain, Univ. Catholique De Louvain.*

1:00 ZZ10 **271.13** Prehension force for lifting a light-weight object. Y. HIRAMATSU*; D. KIMURA; H. JINNOUCHI; T. ITO; K. KADOTA; H. KINOSHITA. *Univ. of Osaka, Department. of Hlth. and Sport, Univ. of Mukogawa Women's.*

2:00 ZZ11 **271.14** Gaiting of cutaneo-muscular reflexes and somatosensory evoked potentials differs with the load compliance during maintaining constant finger force or position. H. KIRIMOTO*; T. MATSUMOTO; H. TAMAKI; M. SUZUKI; S. MIYAGUCHI; K. SUGAWARA; H. ONISHI. *Niigata Univ. of Hlth. & Welfare.*

3:00 ZZ12 **271.15** Finger and arm control during interactions with multitouch devices. D. L. JINDRICH*; D. S. ASAKAWA; J. LEE; C. LOZANO; J. T. DENNERLEIN. *California State Univ. San Marcos, California State University, San Marcos, Arizona State Univ., Arizona State Univ., Northeastern Univ.*

4:00 ZZ13 **271.16** Does abrupt inversion of visual feedback influence grip force adjustments during object transportation? Implication for forward models. F. DANION*; F. SARLEGNA. *CNRS, INT, CNRS.*

1:00 ZZ14 **271.17** Neural representation of an invariant object mass is spatiotemporally changing during object manipulation. G. KONG*; K. L. WEI. *Peking Univ.*

2:00 ZZ15 **271.18** Physiologically-based control of a robotic tendon-driven system. J. ROCAMORA*; C. M. NIU; J. BUCHLI; T. D. SANGER; F. J. VALERO CUEVAS. *USC, ETH Zürich.*

3:00 ZZ16 **271.19** Kinematic and reflexive finger-thumb coupling during pinch. C. L. JONES; D. G. KAMPER*. *Illinois Inst. Technol., Rehabil. Inst. of Chicago.*

4:00 ZZ17 **271.20 Withdrawn.**

1:00 ZZ18 **271.21** Temporal aspects of grasping apertures with different tools. Y. ITAGUCHI*; C. YAMADA; K. FUKUZAWA. *Waseda University, Psychology Dept.*

2:00 ZZ19 **271.22** Psychophysical limitations and biases in the perception of tactile direction. J. C. TANNER*; N. NEWMAN; N. ZAUTRA; S. HELMS TILLERY. *Arizona State Univ., Arizona State Univ., Arizona State Univ.*

3:00 ZZ20 **271.23** Effects of force production and working memory on pain perception. S. COOMBES*; T. PARIS; G. MISRA; D. B. ARCHER. *Univ. of Florida.*

4:00 ZZ21 **271.24** Sequence-dependent hand kinematics by professional and amateur pianists. S. A. WINGES*; S. FURUYA. *Louisiana State Univ., Hannover Univ. of Music, Drama, and Media.*

1:00 ZZ22 **271.25** ▲ Effects of task complexity on grip force production. A. N. KHAN*; S. L. GORNIAK. *Univ. of Houston.*

2:00 ZZ23 **271.26** The functional topology of large-scale brain networks relates to the efficiency of short-term skill acquisition training. Z. ZANG*; L. GEIGER; M. ZANGL; A. SCHAEFER; H. CAO; J. REIS; M. RUF; A. MEYER-LINDENBERG; H. TOST. *Central Inst. of Mental Health, Heidelberg Univ., Albert-Ludwigs-University, Central Inst. of Mental Health, Heidelberg Univ.*

3:00 ZZ24 **271.27** Decoding grasp-relevant dimension of 3D objects in the Lateral Occipital Complex in grasping and viewing tasks. S. MONACO*; R. KAMRAN-DISFANI; K. FIEHLER; D. Y. HENRIQUES. *York Univ., York Univ., Justus-Liebig Univ. Giessen.*

4:00 ZZ25 **271.28** ▲ Wrist forces and torques during activities of daily living. A. L. PANDO*; J. N. HERNANDEZ; S. K. CHARLES. *Brigham Young Univ., Brigham Young Univ., Brigham Young Univ.*

1:00 ZZ26 **271.29** Improved sensorimotor performance via stochastic resonance is related to increased corticomuscular coherence. C. TRENADO; I. MENDEZ-BALBUENA; E. MANJARREZ; F. HUETHE; J. SCHULTE-MOENTING; B. FEIGE; M. HEPP-REYMOND; R. G. KRISTEVA*. *Univ. Freiburg, Facultad de Psicologia, Inst. de Fisiologia, Inst. Neuroinformatics, Univ. Zürich and ETH Zürich.*

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POSTER

272. Voluntary Motor Control: Cortical Planning I

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 AAA1 **272.01** Inhibitory processes during response preparation are observed when a muscle is part of the volitional action, but not if the same muscle is recruited for postural stability. L. LABRUNA*; I. GREENHOUSE; M. PALUY; R. B. IVRY. *UC Berkeley, UC.*

2:00 AAA2 **272.02** Influence of delay period duration on inhibitory processes for response preparation. F. LEBON*; I. GREENHOUSE; L. LABRUNA; C. PAPAXANTHIS; R. B. IVRY. *INSERM U1093, Univ. of California, Berkeley.*

3:00 AAA3 **272.03** Response sequence influences motor excitability during response preparation. I. GREENHOUSE*; F. LEBON; L. LABRUNA; C. PAPAXANTHIS; R. IVRY. *Univ. of California, Berkeley, Univ. of Burgundy.*

4:00 AAA4 **272.04** Modulation of the intra-cortical LFP during action execution and observation. S. WALDERT*; R. PHILIPP; G. VIGNESWARAN; J. M. KILNER; R. N. LEMON; A. KRASKOV. *Univ. Col. London, Univ. Col. London.*

1:00 AAA5 **272.05** Effector coding for motor planning: Dynamic activation and information topologies in posterior parietal cortex. F. LEONE*; T. HEED; I. TONI; W. MEDENDORP. *Radboud Univ. Nijmegen, Donders Inst., Hamburg Univ., Radboud Univ. Nijmegen.*

2:00 AAA6 **272.06** The cortical bases of hand selection for object manipulation in humans: Insights from fMRI repetition suppression. K. F. VALYEAR*; S. H. FREY. *Univ. of Missouri.*

3:00 AAA7 **272.07** Body-centered, mixed, but not hand-centered coding of visual targets in the medial posterior parietal cortex during reaches in 3D space. K. HADJIDIMITRAKIS*; F. BERTOZZI; R. BREVEGLIERI; M. G. ROSA; C. GALLETTI; P. FATTORI. *Univ. of Bologna, Monash Univ.*

4:00 AAA8 **272.08** Reaching related neurons in the Superior Parietal Lobule are strongly modulated by hand-positional signals when movement is directed to memorized targets. E. BRUNAMONTI*; A. GENOVESIO; M. A. GIUSTI; R. CAMINITI; P. PANI; S. FERRAINA. *Sapienza Univ.*

1:00 AAA9 **272.09** The influence of gaze on the activity of macaque M1 and F5 mirror neurons. R. PHILIPP*; G. VIGNESWARAN; S. WALDERT; R. LEMON; A. KRASKOV. *UCL Inst. of Neurol.*

2:00 AAA10 **272.10** Precuneate cortical connections in the macaque monkey. L. PASSARELLI; S. BAKOLA*; M. GAMBERINI; K. J. BURMAN; K. E. RICHARDSON; P. FATTORI; M. G. P. ROSA; C. GALLETTI. *Univ. of Bologna, Monash Univ.*

3:00 AAA11 **272.11** Probing corticospinal excitability at point of object contact during constrained vs. unconstrained grasps. M. DAVARE*; P. PARIKH; P. MCGURRIN; M. SANTELLO. *Inst. of Neurol., Arizona State Univ.*

4:00 AAA12 **272.12** Visual monitoring of hand actions in AIP neurons. P. PANI*; T. THEYS; P. JANSSEN. *Katholieke Univ. Leuven.*

1:00 AAA13 **272.13** The functional connectivity of macaque area AIP. E. PREMEREUR*; I. C. VAN DROMME; W. VANDUFFEL; P. JANSSEN. *KU Leuven, Massachusetts Gen. Hosp, Harvard Med. Sch.*

2:00 AAA14 **272.14** The causal role of the posterior parietal cortex in online feedback control of visually-guided reaching movements. E. HWANG*; M. HAUSCHILD; R. A. ANDERSEN. *CALTECH.*

3:00 AAA15 **272.15** Corticospinal excitability during planning of a dexterous grasp. P. J. PARIKH*; P. MCGURRIN; M. DAVARE; M. SANTELLO. *Arizona State Univ., Arizona State Univ., Arizona State Univ., Univ. Col. London, Univ. Col. London.*

4:00 AAA16 **272.16** Selective modulation of interactions between areas of the dorsomedial pathway during the transport and grip formation of goal-directed hand actions. M. VESIA*; M. BARNETT-COWAN -; B. ELAHI; J. L. NEVA; M. DAVARE; W. R. STAINES; J. C. CULHAM; R. CHEN. *Toronto Western Res. Inst., The Brain and Mind Institute, Univ. of Western Ontario, Univ. of Waterloo, Univ. Col. London, Inst. of Neurol.*

1:00 AAA17 **272.17** Single trial neural correlates of grasping movement preparation in macaque areas AIP and F5. J. A. MICHAELS*; B. WELLNER; H. SCHERBERGER. *German Primate Ctr., Georg-August-Universität Göttingen.*

2:00 AAA18 **272.18** Decoding reveals planning-related signals underlying object grasping and manipulation. J. P. GALLIVAN*; J. S. CANT; M. GOODALE; J. R. FLANAGAN. *Queen's Univ., Univ. of Toronto, Western Univ.*

3:00 AAA19 **272.19** Neural substrates for allocentric versus egocentric representation in memory-guided reach. Y. CHEN*; S. MONACO; P. BYRNE; X. YAN; D. Y. P. HENRIQUES; J. D. CRAWFORD. *Ctr. For Vision Research, Canadian Action and Perception Network, York Univers, Ctr. for Vision Research, York Univ., Ctr. for Vision Research, Kinesiology and Hlth. Sci. and Psychology, York Univ., Ctr. for Vision Research, Psychology, Kinesiology and Hlth. Sci. and Biology, Canadian Action and Perception Network, York Univ.*

4:00 AAA20 **272.20** Decoding of movement states and continuous kinematics of hand and arm motions from primate motor, premotor, and parietal cortex. V. K. MENZ*; S. SCHAFFELHOFER; H. SCHERBERGER. *German Primate Ctr.*

1:00 AAA21 **272.21** Local field potentials are influenced by cooperative joint-action in frontal and parietal cortex of macaque monkeys. O. PAPAZACHARIADIS*; S. FERRARI-TONIOLO; F. VISCO-COMANDINI; R. CAMINITI; A. BATTAGLIA-MAYER. *SAPIENZA Univ.*

2:00 AAA22 **272.22** Neural activity associated to joint-action during social cooperation in frontal and parietal cortex of macaque monkeys. F. VISCO-COMANDINI*; S. FERRARI-TONIOLO; O. PAPAZACHARIADIS; R. CAMINITI; A. BATTAGLIA-MAYER. *SAPIENZA Univ. of Rome.*

3:00 AAA23 **272.23** Reciprocal interactions between distal and proximal upper-limb segments in humans. D. S. SOTEROPOULOS*; M. A. PEREZ. *Newcastle Univ., Univ. of Pittsburgh.*

4:00 AAA24 **272.24** Ipsilateral corticospinal responses are modulated during bilateral voluntary contractions in humans. T. TAZOE*; M. A. PEREZ. *Res. Institute, Natl. Rehabil. Ctr. For Persons With Disabilities, Univ. of Pittsburgh.*

1:00 AAA25 **272.25** ● Feedback responses enforce trajectory control when required by the goal of the ongoing task. T. CLUFF*; S. H. SCOTT. *Queen's Univ.*

2:00 AAA26 **272.26** ● Neural correlates of online reaching control in primary motor cortex. F. CREVECOEUR*; T. HERTER; S. H. SCOTT. *Queen's Univ., Dept. of Exercise Sci., Queen's Univ.*

3:00 BBB1 **272.27** ● Rapid Feedback Responses: Rapid switching between multiple goals during movement execution. J. Y. NASHED*; F. CREVECOEUR; S. H. SCOTT. *Queen's Univ.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

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POSTER

273. Cortical Motor Planning: Neuroimaging

Theme D: Sensory and Motor Systems

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 BBB2 **273.01** Decoding the representations of grasp types and object properties in the human brain. S. FABBRI*; R. CUSACK; J. C. CULHAM. *Univ. of Western Ontario, Univ. of Western Ontario.*

2:00 BBB3 **273.02** How far is it? BOLD fMRI activity encodes reach amplitude during planning and execution. A. PILACINSKI*; A. LINDNER. *Hertie Inst.*

3:00 BBB4 **273.03** A role for ventral stream brain areas in understanding errors in tool manipulation. J. C. MIZELLE*; R. KELLY; L. A. WHEATON. *Georgia Tech., Atlanta VA Med. Ctr.*

4:00 BBB5 **273.04** Effects of verb presentation on motor preparation and motor action. M. YUKI*; S. MORIOKA. *Murata Hosp., Grad. school of health science,Kio university.*

1:00 BBB6 **273.05** Effect of sensory attenuation on cortical movement related oscillations. J. LEE*; B. D. SCHMIT. *Marquette Univ.*

2:00 BBB7 **273.06** Increased activation in premotor and prefrontal cortices relates to poorer motor action selection performance after stroke. J. C. STEWART*; S. C. CRAMER. *Univ. of California, Irvine.*

3:00 BBB8 **273.07** ● Neural correlates of reaching movements in virtual environments designed for neuro-rehabilitation. G. GARIPELLI*; V. LIAKONI; D. PEREZ-MARCOS; T. TADI. *Mindmaze SA.*

4:00 BBB9 **273.08** The role of primary motor cortex beta activity in the control of force output. E. PROKIC*; G. WOODHALL; I. STANFORD; S. HALL. *Aston Univ.*

1:00 BBB10 **273.09** Separable components of object-related gesture production in the left hemisphere. L. J. BUXBAUM*; A. D. SHAPIRO; H. B. COSLETT. *Moss Rehabil. Res. Inst., Univ. of Pennsylvania.*

2:00 BBB11 **273.10** Attention modulated resting state neural activity predicts future performance on a complex multimodal glider landing task. D. E. CALLAN*; C. TERZIBAS; D. CASSEL; A. CALLAN; H. ANDO. *Ctr. For Information and Neural Networks NICT, Multisensory Cognition and Computation Lab. NICT, Hosp. for Sick Children, Ctr. for Information and Neural Networks NICT.*

3:00 BBB12 **273.11** Pathways of processing tool information during actual use. M. BRANDI*; J. HERMSDÖRFER; C. SORG; G. GOLDENBERG; A. WOHLSCHLÄGER. *Technische Univ. München, Technische Univ. München, Ludwig-Maximilians-Universität München, Technische Univ. München, Technische Univ. München, Klinikum Bogenhausen.*

4:00 BBB13 **273.12** Improvement in precision grip control correlates with self-modulation of primary motor cortex. M. BLEFARI*; J. SULZER; M. HEPP-REYMOND; S. KOLLIAS; R. GASSERT. *Swiss Federal Inst. of Technol. (EPFL) Lausanne, Switzerland, Rehabil. Engin. Lab, ETH, Inst. of Neuroinformatics, Univ. of Zurich and ETH, Inst. of Neuroradiology, Univ. Hosp. Zurich.*

1:00 BBB14 **273.13** Dissociating intrinsic and extrinsic reference frames in the human motor system. D. A. BARANY*; V. DELLA-MAGGIORE; M. CIESLAK; S. VISWANATHAN; S. T. GRAFTON. *UC Santa Barbara, Univ. of Buenos Aires.*

2:00 BBB15 **273.14** Neural dynamics of the prehension system. L. TURELLA*; R. TUCCIARELLI; R. RUMIATI; A. LINGNAU. *Ctr. For Mind/Brain Sci. (CIMeC), Univ. of Trento, 2. Scuola Internazionale Superiore di Studi Avanzati (SISSA).*

3:00 BBB16 **273.15** The EEG activity of the prefrontal cortex in the visual reaction task. A. MORI*; R. KOSHIZAWA; K. OKI; M. TAKAYOSE; Y. KITA. *Nihon Univ., Nihon Univ., Keisen Univ.*

4:00 BBB17 **273.16** Postural effects on cortical activity during swallowing: A fNIRS study. M. YAMAWAKI*; S. SHIBANO; E. YOKOZEKI. *Kyoto Prefectural Univ. of Med.*

1:00 BBB18 **273.17** Variability of skillful motor performance is stemmed from variability of neuronal activity in wider range of brain regions recruited during motor execution. N. MIZUGUCHI*; S. UEHARA; S. HIROSE; S. YAMAMOTO; E. NAITO. *Natl. Inst. of Information and Communications Technol., Kyoto Univ., Osaka Univ.*

2:00 BBB19 **273.18** Hierarchical movement coding within the prehension network. A. LINGNAU*; R. RUMIATI; L. TURELLA. *Univ. of Trento, Intl. Sch. for Advanced Studies (SISSA).*

3:00 BBB20 **273.19** Separating the Means from the End: Differentiating Motor Actions from their intended consequences. R. GILRON*; A. KRASOVSKY; Y. YESHURUN; R. MUKAMEL. *Tel Aviv Univ., Tel Aviv Univ.*

4:00 BBB21 **273.20** Change in resting-state functional connectivity after motor skill learning in humans. S. UEHARA*; N. MIZUGUCHI; S. YAMAMOTO; S. HIROSE; E. NAITO. *Natl. Inst. of Information and Communications Technol., Japan Society for the Promotion of Sci., Grad. Sch. of Human and Envrn. Studies, Kyoto Univ., Grad. Sch. of Medicine, Osaka Univ.*

POSTER

274. Kndy Neurons, Kisspeptin, Rfamide

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 BBB22 **274.01** Ablation of arcuate KNDy neurons amplifies the LH surge in steroid-primed, ovariectomized rats. S. J. KRAJEWSKI-HALL; M. A. MITTELMAN-SMITH; N. T. MCMULLEN; N. E. RANCE*. *Univ. of Arizona Col. of Med., Univ. of Arizona Col. of Med., Evelyn F. McKnight Brain Inst.*

2:00 BBB23 **274.02** Co-treatment with either insulin sensitizer or androgen antagonist blocks the effect of prenatal testosterone on AgRP cell number in female sheep hypothalamus. M. CERNEA*; L. M. COOLEN; V. PADMANABHAN; M. N. LEHMAN. *Univ. of Mississippi Med. Ctr. (UMMC), Univ. of Michigan.*

3:00 BBB24 **274.03** Neurokinin B signaling in the retrochiasmatic area is essential for the full preovulatory LH surge in ewes. K. L. PORTER; S. M. HILEMAN; S. L. HARDY; R. L. GOODMAN*. *West Virginia Univ.*

4:00 BBB25 **274.04** Effect of progesterone on kisspeptin and neurokinin B cell numbers in the arcuate nucleus of the female pig. S. M. HILEMAN; L. J. MEADOWS; K. L. PORTER; L. M. COOLEN*; C. FERGANI; L. A. REMPEL; R. A. CUSHMAN; W. T. OLIVER; E. C. WRIGHT; J. R. MILES; C. A. LENTS. *West Virginia Univ., Univ. of Mississippi Med. Ctr., USDA, ARS, U.S. Meat Animal Res. Ctr.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

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1:00 BBB26 **274.05** Prenatal testosterone alters KNDy cell peptides in the arcuate nucleus of pre-pubertal male and female lambs. C. FERGANI*; L. M. COOLEN; V. PADMANABHAN; M. N. LEHMAN. *Univ. of Mississippi, Univ. of Mississippi Med. Ctr., Univ. of Michigan.*

2:00 CCC1 **274.06** Arcuate KNDy neurons receive afferent projections from the retrochiasmatic area in the ewe. L. M. COOLEN; T. G. SMITH; M. N. LEHMAN*; S. M. HILEMAN; J. M. CONNORS; R. L. GOODMAN. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., West Virginia Univ.*

3:00 CCC2 **274.07** Interactions between substance p, neurokinin a and kisspeptin in the control of gnrh release. V. M. NAVARRO*; S. SIMAVLI; M. WU; R. S. CARROLL; M. ALREJA; U. B. KAISER. *Brigham and Women's Hosp. / Harvard Med. Sch., Yale Univ.*

4:00 CCC3 **274.08** Investigating circadian regulation of Rfrp (GnIH) neurons in male and female mice. M. C. POLING*; E. Y. LUO; A. S. KAUFFMAN. *UC San Diego.*

1:00 CCC4 **274.09** Vax1 is required for migration of hypothalamic GnRH neurons and normal reproductive function in mice. H. M. HOFFMANN*; I. KIMURA; A. TAMRAZIAN; A. S. KAUFFMAN; P. L. MELLON. *UC San Diego, Kyoto Univ. Grad. Sch. of Pharmaceut. Sci.*

2:00 CCC5 **274.10** Neurokinin B induces c-fos transcription via serum response factor (SRF) and signal transducer and activator of transcription (STAT) in gonadotropin-releasing hormone neurons. C. A. GLIDEWELL-KENNEY*; P. P. SHAO; P. L. MELLON. *Univ. of California San Diego.*

3:00 CCC6 **274.11** Vasoactive intestinal peptide modulation of steroid-induced lh surge involves kisspeptin signaling in young but not in middle-aged female rats. Y. SUN*; A. KAUFFMAN; J. KIM; A. R. KHAN; J. SHU; G. NEAL-PERRY. *Albert Einstein Col. of Med., Univ. of California.*

4:00 CCC7 **274.12** Kisspeptin antibody crossreactivity with GnIH: Further questions about the identity of kisspeptin in birds. F. N. MADISON*; G. F. BALL. *Johns Hopkins Univ.*

1:00 CCC8 **274.13** 17β-Estradiol regulation of the mRNA expression of tachykinins in the guinea pig hypothalamus during positive feedback. M. A. BOSCH*; Y. FANG; M. J. KELLY; O. K. RONNEKLEIV. *Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*

2:00 CCC9 **274.14** Conductances underlying the burst firing of kisspeptin neurons in the rostral periventricular area of the third ventricle (RP3V). C. ZHANG*; K. J. TONSFELDT; J. QIU; R. A. STEINER; M. J. KELLY; O. K. RØNNEKLEIV. *Oregon Hlth. & Sci. Univ., Dept Obstetrics & Gynecology, Univ. of Washington, Univ. of Washington, Oregon Natl. Primate Res. Ctr.*

3:00 CCC10 **274.15** Changes in RFamide related peptide-1 (RFRP-1)-immunoreactivity during postnatal development and estrous cycle. M. D. ANDERSEN*; S. R. JØRGENSEN; A. OVERGAARD; J. D. MIKKELSEN. *Rigshospitalet.*

4:00 CCC11 **274.16** Kisspeptin analogues produce different effects on GnRH neurons. J. D. MIKKELSEN*; M. LIE; V. SIMONNEAUX; A. OVERGAARD. *Univ. Copenhagen - Rigshospitalet, Univ. de Strasbourg.*

POSTER

275. TIDA Neurons, Prolactin, and Lactation

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 CCC12 **275.01** Modification of prolactin signaling in the arcuate nucleus of the mouse during lactation. S. J. BUNN*; S. H. YIP; S. E. KIRK; P. E. GUSTAFSON; D. R. GRATTAN. *Univ. of Otago, Univ. of Otago.*

2:00 DDD1 **275.02** Anatomical substrate for the neuroendocrine role of the incerto-hypothalamic area. D. N. M. BUENO; R. J. DA SILVA; J. M. DA SILVA; J. C. BITTENCOURT; L. V. SITA*. *Inst. Biomed Sci.*

3:00 DDD2 **275.03** Expression and immunoreactivity of mchr1 in mammary gland of the rat during lactation. D. S. BATAGELLO*; R. J. DA SILVA; H. C. DA COSTA; J. M. DA SILVA; C. F. P. LOTFI; L. V. SITA; E. M. A. F. BEVILACQUA; J. C. BITTENCOURT. *Univ. of Sao Paulo, Inst. of Psychology, Univ. of Sao Paulo.*

4:00 DDD3 **275.04** Morphological characterization of tuberoinfundibular dopamine (TIDA) neurons in rodents. A. HELLYSAZ*; D. J. LYONS; C. BROBERGER. *Karolinska Institutet, Uppsala Univ.*

1:00 DDD4 **275.05** Oxytocin excites rat tubero-infundibular dopamine (TIDA) neurons *in vitro.* V. BRIFFAUD*; C. BROBERGER. *Karolinska Institutet.*

2:00 DDD5 **275.06** Dopamine autoregulation of tuberoinfundibular dopamine (TIDA) neurons in the male rat: Electrophysiological studies *in vitro.* A. S. STAGKOURAKIS*; D. J. LYONS; C. BROBERGER. *Karolinska Institutet.*

3:00 DDD6 **275.07** Artificial rearing condition increases dopamine and DOPAC concentration in pituitary in neonatal rats. C. G. TORIZ*; B. GARCÍA IGLESIAS; M. MENDOZA GARRIDO; M. DE LA VEGA GONZÁLEZ; V. GARCÍA GARCÍA; E. SANCHEZ SANCHEZ; A. I. MELO SALAZAR; E. ESCARTÍN PÉREZ; B. FLORÁN GARDUÑO; C. SOLANO AGAMA; J. HERNÁNDEZ FALCÓN; M. GONZÁLEZ DEL PLIEGO OLIVARES; I. JIMÉNEZ ESTRADA; A. MARTÍNEZ. *CINVESTAV-IPN, CINVESTAV-IPN, UPIBI-IPN, UPIBI-IPN, Cira, CINVESTAV-lab Tlaxcala, UNAM, UNAM.*

4:00 DDD7 **275.08** Changes in SK3 channel and associated proteins during pregnancy and lactation in the rat supraoptic nucleus (SON). G. CHANDAKA*; L. WANG; S. E. SENOGLES; W. E. ARMSTRONG. *Univ. of Tennessee, Univ. of Tennessee Hlth. Sci. Ctr.*

1:00 DDD8 **275.09** ▲ Fasting decreases tuberoinfundibular dopaminergic neurons and induces PRL secretion. T. KUBOTA*; M. FURUTA; A. FUKUSHIMA; C. KAKEHASHI; T. FUNABASHI; T. AKEMA. *Dept. of Physiol. St.Marianna Univ. Sch. of Med.*

2:00 DDD9 **275.10** ▲ The role of suckling or non-suckling stimulation on the prolactin effects upon wide dynamic range cells of male rats. A. GONZALEZ-HERNANDEZ*; F. MENA; N. NAVARRO; A. CASTILLA; T. MORALES; G. ROJAS-PILONI; G. MARTINEZ-LORENZANA; M. CONDES-LARA. *Inst. de Neurobiologia, UNAM, Inst. de Neurobiologia, UNAM.*

3:00 DDD10 **275.11** Behavioral effects in the offspring of maternal protein malnutrition during lactation. J. D. SILVA*; M. C. F. FRAGA; F. N. NUNES; E. G. DE MOURA; P. C. LISBOA; C. C. FILGUEIRAS; Y. D. VILLAÇA; A. C. MANHÃES. *Univ. Do Estado Do Rio De Janeiro.*

4:00 DDD11 **275.12** Each individual isoform of the dopamine D2 receptor protects from lactotroph hyperplasia. D. RADL; H. LEE; E. BORRELLI*. *Univ. California.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

276. Neuroimmunology: Microglia and Dendritic Cells

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 DDD12 **276.01** Alterations in the endocannabinoid machinery in alternative microglia *in vitro.* M. MECHA; A. FELIÚ; F. CARRILLO-SALINAS; C. GUAZA*. *Cajal Inst., Inst. Cajal, CSIC.*

2:00 EEE1 **276.02** Identification of unique molecular and functional signature in microglia. O. BUTOVSKY*; M. JEDRYCHOWSKI; C. MOORE; A. LANSER; T. KOEGLSPERGER; B. DAKE; R. CIALIC; P. WU; C. DOYKAN; S. GYGI; J. ANTEL; H. WEINER. *Brigham and Women's Hosp., Harvard Med. Sch., Harvard Med. Sch., McGill Univ., Univ. of Munich, Tufts Univ.*

3:00 EEE2 **276.03** Morphological differences in microglia in the mouse brain through development may contribute to vulnerability to stressors during puberty. M. K. HOLDER*; J. D. BLAUSTEIN. *Univ. of Massachusetts, Amherst.*

4:00 EEE3 **276.04** The role of microglial-specific MyD88-dependent signaling after LPS stimulation. C. M. MILLER*; K. BHASKAR; C. PARKHURST; D. LITTMAN; W. GAN; R. RANSOHOFF; B. LAMB. *The Cleveland Clin. Lerner Res. Inst., Univ. of New Mexico, New York Univ.*

1:00 EEE4 **276.05** Lectin-based passive and active dendritic cell immunotherapies against experimental autoimmune encephalomyelitis/multiple sclerosis, and Glioblastoma. D. SAGAR*; C. FOSS; Z. K. KHAN; J. SHIRAZI; M. G. POMPER; P. JAIN. *Drexel Univ. Colleged of Med., Johns Hopkins Univ., Drexel Univ. Col. of Med.*

2:00 EEE5 **276.06** Rapid stimulation of IFN-regulated genes and JAK/STAT signaling in the brain following peripheral administration of IFN-γ. J. WANG*; Y. DAI. *Univ. Missouri-Kansas City.*

3:00 EEE6 **276.07** The effects of calorie restriction on fever and neuroimmune communication pathways in mice. S. KENT*; M. RADLER; G. SMITH; M. W. HALE. *La Trobe Univ.*

4:00 EEE7 **276.08** Harnessing the benefits of polarized macrophages for CNS functions. M. K. MISHRA*; M. KEOUGH; V. W. YONG. *Univ. of Calgary.*

1:00 EEE8 **276.09** Age-related changes induced by Lipopolysaccharide on α2,3-Na,K-ATPase activity, cyclic GMP levels and oxidative status in rat hippocampus. A. R. VASCONCELOS*; L. M. YSHII; A. E. BÖHMER; L. S. LIMA; R. ALVES; D. Z. ANDREOTTI; T. MARCOURAKIS; C. SCAVONE; E. M. KAWAMOTO. *Univ. of Sao Paulo, Univ. of Sao Paulo, Natl. Inst. on Aging Intramural Res. Program.*

2:00 EEE9 **276.10** IL-2 activated natural killer cells interact with but do not lyse adult DRG neuron targets. A. J. DAVIES*; J. LEE; J. LEE; J. CHOI; M. KIM; K. LEE; S. OH. *Sch. of Dentistry, Seoul Natl. Univ., Korea Univ.*

3:00 EEE10 **276.11** Recruitment of interferon-producing killer dendritic cells to the viral-induced encephalitic brain is IL-15 dependent. A. TROCHTENBERG*; P. M. D'AGOSTINO; K. BULLOCH. *The Rockefeller Univ.*

4:00 EEE11-DP10 **276.12** Spinal cord injury in aged mice resulted in increased lesion length and limited functional recovery associated with impaired interleukin-(IL)4 receptor-alpha mediated regulation of microglia. A. M. FENN*; J. C. HALL; J. C. GENSEL; P. G. POPOVICH; J. P. GODBOUT. *The Ohio State Univ., The Ohio State Univ., Univ. of Kentucky.*

1:00 EEE12 **276.13** Interleukin-1beta excites rat histaminergic neurons. H. L. HAAS*; Y. YANOVSKY; O. A. SERGEEVA. *Heinrich-Heine-University.*

2:00 EEE13 **276.14** Spatial, temporal and phenotypic differences in GFP⁺ bone marrow cells repopulating central autonomic nuclei. Y. SUGIYAMA*; G. FARACO; A. MORAGA; L. GARCIA BONILLA; J. ANRATHER; C. IADECOLA. *Brain and Mind Res. Inst. Weill Cornell Med. Col., Univ. Complutense.*

3:00 EEE14 **276.15** Dendritic cell vaccine-induced immune activity in gliomas elicits ependymal gene expression and differentiation. M. C. JHUN*; N. YEAGER; R. CORDNER; A. RENTSENDORJ; A. MARDIROS; A. PANWAR; Y. HIRAKAWA; D. K. MORRIS-IRVIN; C. WANG; K. L. BLACK; C. J. WHEELER. *Cedars-Sinai Med. Ctr., Cedars-Sinai Med. Ctr., City of Hope, Cedars-Sinai Med. Ctr.*

4:00 EEE15 **276.16** The CD200L-CD200R interaction is essential for the repair process following spinal cord injury. M. COHEN*; H. BEN-YEHUDA; M. SCHWARTZ. *Weizmann Inst. of Sci.*

1:00 EEE16 **276.17** Quantitative proteomic analysis for the effects of aged garlic extracts on lipopolysaccharide-induced neuroinflammation in microglial cells. Z. QU*; H. ZHOU; D. L. NKHOLISE; V. V. MOSSINE; J. CUI; J. LI; J. CHENG; C. M. GREENLIEF; T. MAWHINNEY; P. N. BROWN; K. L. FRITSCHE; D. B. LUBAHN; G. Y. SUN; Z. GU. *Univ. of Missouri, Univ. of Missouri, Univ. of Missouri, Univ. of Missouri, Univ. of Missouri, British Columbia Inst. of Technol., Univ. of Missouri.*

2:00 EEE17 **276.18** Mitochondrial dynamics modulate the expression of pro-inflammatory mediators in microglial cells. J. PARK*; H. CHOI; D. LEE. *Kyungpook Natl. Univ., Korea Res. Inst. of Biosci. and Biotech. (KRIBB).*

3:00 EEE18 **276.19** Active microglia are modulated by TGFb that is produced by IL-10 re-directed astrocytes. D. M. NORDEN*; A. M. FENN; A. DUGAN; J. P. GODBOUT. *The Ohio State Univ.*

4:00 EEE19 **276.20** Homeostatic and injury-induced microglial behavior in the aging brain. J. K. HEFENDEHL*; J. J. NEHER; R. SÜHS; S. KOHSAKA; A. SKODRAS; M. JUCKER. *Brain Res. Centre, Universtiy of British Columbia, Hertie Inst. for Clin. Brain Res., Natl. Inst. of Neurosci.*

1:00 EEE20 **276.21** Urban particulate matter selectively affects primary human neurons. K. MENDOZA; C. SIOUTAS; P. PAKBIN; A. G. CAMPBELL*. *Western Univ. Hlth. Sci., USC, Western Univ. Hlth. Sci.*

2:00 EEE21 **276.22** Microglia mediate chemotherapy induced neuroinflammation and cognitive deficits in female mice. B. L. JARRETT*; M. B. LUSTBERG; A. HINZEY; C. L. SHAPIRO; A. C. DEVRIES. *Ohio State Univ., Ohio State Univ.*

POSTER

277. Neuroimmunology: Behavioral Effects

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 EEE22 **277.01** Differential modulation of bacteria-induced sickness and inflammation by double stranded RNA-dependent protein kinase (PKR). D. C. POON*; Y. S. HO; C. K. M. LOK; S. M. C. LEUNG; K. CHIU; R. C. C. CHANG. *The Univ. of Hong Kong, The Univ. of Hong Kong, Macau Univ. of Sci. and Technol., The Univ. of Hong Kong, The Univ. of Hong Kong.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 EEE23 **277.02** Perturbation of the innate immune system in neurons leads to depression in mouse. K. KEYHANIAN*; X. ZHOU; N. R. PANDEY; Z. QIN; T. HO; K. WEN; A. F. R. STEWART; H. CHEN. *Univ. of Ottawa, Ottawa Hosp. Res. Inst., Univ. of Ottawa, Univ. of Waterloo, Univ. of Ottawa Heart Inst.*

3:00 EEE24 **277.03** Electroconvulsive therapy changes the plasma cytokine profile in patients with depressive disorder. L. SCHWIELER*; M. SAMUELSSON; H. LITWIN; S. ERHARDT. *Karolinska Inst., Dept of Clin. and Exptl. Med.*

4:00 EEE25 **277.04** L. reuteri-induced modulation of behavior in C57BL/6J mice. M. J. EIMERBRINK*; E. E. JOHNSON; G. W. BOEHM. *Texas Christian Univ.*

1:00 EEE26 **277.05** Role of inflammation in high-fat diet-induced cognitive deficits and alterations in hippocampal neurogenesis. K. M. BAUMGARNER; C. DIAZ; A. JONES; R. A. KOHMAN*. *Univ. of North Carolina Wilmington.*

2:00 FFF1 **277.06** ● More pain than gain with chronic codeine: The first evidence of codeine-induced hyperalgesia. J. L. JOHNSON*; M. R. HUTCHINSON; D. B. WILLIAMS; P. ROLAN. *Univ. of Adelaide, Univ. of Adelaide, Univ. of South Australia, Pain and Anaesthesia Res. Clin.*

3:00 FFF2 **277.07** Amyloid-beta induces a neuroinflammatory response and indoleamine 2,3-dioxygenase-dependent neuropsychiatric-like behaviors in mice. J. M. PARROTT*; L. REDUS; A. GREEN; J. C. O'CONNOR. *Univ. of Texas Hlth. Sci. Ctr. At San Antonio.*

4:00 FFF3 **277.08** Effects of mold exposure on anxiety, conditioned fear, motor performance and spatial memory. C. F. HARDING*; K. DENISOVA; T. DESAI; R. DESTEFANO; T. ROA; E. SHTRIDLER; C. PYTTE. *Hunter College, CUNY, CUNY, Hunter Col., Hunter Col., Hunter Col., Queens College, CUNY.*

1:00 FFF4 **277.09** ▲ Repeated exposure to environmental mold increases cytokine interleukin-1β expression in the mouse hippocampus. L. BLACHORSKY*; K. PAGE; G. MANES; C. HARDING; C. PYTTE. *Queens College, CUNY, Macaulay Honors Col., CUNY, Hunter College, CUNY.*

2:00 FFF5 **277.10** ▲ Environmental mold decreases new neuron survival in the adult mouse hippocampus. E. NORMAND*; D. BEECH; S. RIBEIRO; K. PAGE; C. F. HARDING; R. DESTEFANO; D. MORRIS; C. PYTTE. *Macaulay Honors Col., Hunter College, CUNY, Queens College, CUNY, CUNY, Hunter College, CUNY, CUNY, Hunter College, CUNY.*

3:00 FFF6 **277.11** ▲ Exercise alters the adaptive immune profile in mice. K. POINSATTE; A. MCPARTLIN; A. J. M. MEEUWISSEN; D. CHEN; E. SHUBEL; X. KONG; N. MONSON; R. ZHANG; A. M. STOWE*. *UT Southwestern Med. Ctr., UT Southwestern Med. Ctr.*

4:00 FFF7 **277.12** Sex differences in hippocampal cytokine expression and signaling after myocardial infarction. N. C. TRONSON*; I. C. SPEIRS. *Univ. of Michigan.*

1:00 FFF8 **277.13** Very late antigen-4 mediated neutrophil invasion into ischemic brain leads to dynamic interactions with microglia and massive functional impairment. M. RIEK-BURCHARDT; J. NEUMANN; J. HERZ; K. G. REYMANN*; M. GUNZER. *Leibniz Inst. for Neurobio., Univ. of Magdeburg, Univ. Hosp., Univ. Hosp. Essen, Leibniz Inst. for Neurobio., German Ctr. for Neurodegenerative Dis., Inst. of Exptl. Immunol. and Imaging.*

2:00 FFF9 **277.14** Long-term consequences of early life stress on immune function in rhesus macaques. P. J. PIERRE*; C. L. COE; A. J. BENNETT. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

3:00 FFF10 **277.15** Acute neuroinflammation disrupts context-object discrimination but not novel object recognition. J. CZERNIAWSKI*; J. F. GUZOWSKI. *Univ. of California, Irvine, Univ. of California, Irvine.*

4:00 FFF11 **277.16** Antipsychotic potential of thalidomide in immune/inflammatory model for schizophrenia. M. MIZUNO*; H. NAWA; K. NAGATA. *Inst. For Developmental Research, Aichi Human Service Center,, Mol Neurobiol, Brain Res. Inst., Niigata Univ.,.*

1:00 FFF12 **277.17** ● Bacillus Calmette-Guérin vaccine-induced depression-like phenotype in mice: A selective serotonin reuptake inhibitor-resistant model. V. K. KUCHIBHOTLA*; A. RUDRA; M. V. SREEDHARA; S. SINGH; E. DURGA SHIVA PRASAD; M. LAL DAS; M. SENTHIL KUMAR; R. YADAV; R. K. TRIVEDI; S. N. PATTIPATI; L. BRISTOW; R. VIKRAMADITHYAN. *Biocon Bristol-Myers Squibb Res. Center, Syngene Intl. Limited, Biocon Bristol-Myers Squibb Res. Center, Syngene Intl. Limited, Biocon Bristol-Myers Squibb Res. Center, Syngene Intl. Limited, Res. & Development, Bristol-Myers Squibb Co.*

2:00 FFF13 **277.18** Neuroinflammation as a consequence of cardiac ischemia-reperfusion. B. JOHNSTON*; M. E. YOUNG; L. L. MCMAHON; T. M. DESILVA. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham.*

3:00 FFF14 **277.19** REM Selective sleep deprivaction alters intestinal mucosa integrity of wistar rats. E. G. IBARRA CORONADO*; A. M. PANTALEÓN-MARTÍNEZ; J. VELÁZQUEZ-MOCTEZUMA; A. PÉREZ-TORRES; V. RODRIGUEZ-MATA. *Inst. De Investigaciones Biomedicas, UNAM, Univ. Autonóma Metropolitana - Iztapalapa, Facultad de Medicina, UNAM.*

4:00 FFF15 **277.20** Effects of repeated voluntary or forced exercise on rat brain thermosensitive serotonergic systems. M. ARNOLD*; B. N. GREENWOOD; J. A. MCARTHUR; P. J. CLARK; M. FLESHNER; C. A. LOWRY. *Univ. of Colorado.*

1:00 FFF16 **277.21** Neuronal Interleukin-1β expression initiates inflammation leading to neonatal brain injury induced by combined lipopolysaccharide and hypoxia-ischemia. A. SAVARD*; D. GRBIC; D. GRIS; G. SEBIRE. *Univ. De Sherbrooke.*

2:00 FFF17 **277.22** Effects of morphine on inflammation and the blood-brain barrier in the LP-BM5 AIDS model. V. D. MCLANE*; L. CAO; C. L. WILLIS. *Univ. of New England.*

POSTER

278. Hormonal and Neural Control of Sexual Behavior

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 FFF18 **278.01** Plasma membrane progesterone receptors A and B do not complex with dopamine D1 receptor in the arcuate nucleus of the hypothalamus. M. MAHAVONGTRAKUL*; J. PHAN; K. SINCHAK. *California State University, Long Beach.*

2:00 FFF19 **278.02** Free estradiol signals through G-protein coupled receptor 30 (GPER) to rapidly facilitate lordosis via deactivation of medial preoptic nucleus-μ-opioid receptors in estradiol primed rats. N. P. LONG*; C. S. SEREY; A. WELBORN; K. SINCHAK. *California State Univ. Long Beach, California State Univ. Long Beach.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 FFF20 **278.03** Localization of the nucleus accumbens in Japanese quail and European starlings based on hodological, immunohistochemical and functional criteria. O. IYILIKCI*; B. ALWARD; A. GILMOUR; J. BALTHAZART; G. F. BALL. *Johns Hopkins Univ., Univ. of Liege.*

4:00 FFF21 **278.04** Estrogens control female sexual motivation and receptivity in quail. C. DE BOURNONVILLE; G. F. BALL; J. BALTHAZART; C. A. CORNIL*. *Univ. Liege, Johns Hopkins Univ.*

1:00 FFF22 **278.05** Differential effects of global versus local testosterone on song behavior and its underlying neural substrate. B. A. ALWARD*; J. BALTHAZART; G. F. BALL. *The Johns Hopkins Univ., Univ. de Liege.*

2:00 FFF23 **278.06** Androgen receptor protein is increased in the hypothalamus of male compared to female green anole lizards during the breeding season. H. KERVER*; J. WADE. *Michigan State Univ.*

3:00 FFF24 **278.07** Effects of chronic RU486 on the sensitization of sexual behaviors by repeated estradiol benzoate in the ovariectomized Long-Evans rat. S. JONES*; J. GARDNER GREGORY; J. G. PFAUS. *Concordia Univ.*

4:00 FFF25 **278.08** Effects of progestins in the modulation of sexual receptivity in female mice. L. E. GRIJALVA; O. GONZÁLEZ-FLORES; F. J. CAMACHO; N. F. DIAZ*; S. K. MANI; R. G. PAREDES; W. PORTILLO. *Inst. de Neurobiología UNAM, Ctr. de Reproducción Animal de la Univ. Autónoma de Tlaxcala-CINVESTAV, Inst. Nacional de Perinatologia, Baylor Col. of Med.*

1:00 FFF26 **278.09** Ovarian steroids modulate dopamine receptor binding in the medial preoptic area of female rats. M. GRAHAM*; D. HUSSAIN; W. G. BRAKE; J. G. PFAUS. *Concordia Univ.*

2:00 GGG1 **278.10** Absence of pubertal ovarian hormone exposure induces higher activity, but not receptivity, in hormone-primed adult female rats. S. H. MEERTS*; M. E. FARRY-THORN; L. K. DAIRAGHI; W. KAY; N. MASON; R. S. SCHAIRER. *Carleton Col.*

3:00 GGG2 **278.11** Vasopressin and dopamine neurons are activated in female rats that display conditioned mate-guarding behavior. A. HOLLEY*; S. BELLEVUE; S. ROORDA JR; D. VOSBERG; J. G. PFAUS. *Concordia Univ.*

4:00 GGG3 **278.12** Gene expression in the mPOA of copulating and sexually sluggish male rats. A. GONZÁLEZ-GALLARDO; W. PORTILLO*; C. GARCÍA-UGALDE; R. G. PAREDES; A. ANTARAMIAN. *INSTITUTO DE NEUROBIOLOGIA.*

1:00 GGG4 **278.13** Repeated sexual behavior and neurogenesis in the hippocampus of the female rat. M. G. ORTIZ; W. PORTILLO; D. M. ARZATE; M. C. SANCHEZ; R. G. PAREDES*. *Institutod De Neurobiologia UNAM.*

2:00 GGG5 **278.14** Carbon monoxide neurotransmission in the MPOA plays a role in male rat sexual and anxiety-like behaviors. C. L. ROBISON*; J. A. MCHENRY; E. M. HULL. *Florida State Univ., Florida State Univ.*

3:00 GGG6 **278.15** Pontine control of ejaculation and female orgasm. G. HOLSTEGE*; A. T. M. WILLEMSEN; H. K. HUYNH; T. A. LOVICK. *Ctr. For Uroneurology, Univ. Med. Ctr. Groningen, Ctr. for Uroneurology, Univ. of Bristol.*

POSTER

279. Cardiovascular Regulation I

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GGG7 **279.01** A role of Lis1 in adult mice. X. GAO*; D. SMITH. *Univ. of South Carolina.*

2:00 GGG8 **279.02** Prazosin reverses acute apoptosis in a rat model of enterovirus 71 encephalitis. C. TSENG*; W. LU; K. HSIEH; L. GER. *Veterans Gen Hosp-Kaohsiung, Kaohsiung Veterans Gen. Hosp.*

3:00 GGG9 **279.03** Wnt signaling activation in nucleus tractus solitarii modulates insulin receptor substrate-mediated central blood pressure regulation. W. CHENG*; C. TSENG. *Veterans Gen Hosp-Kaohsiung, Natl. Yang-Ming Univ.*

4:00 GGG10 **279.04** Genic expression of oxytocin in the paraventricular nucleus is altered by paroxetine in subchronic aortic regurgitation rats. J. I. GOBBI*; A. M. OMOTO; L. N. MORAES; M. G. ROSCANI; L. S. MATSUBARA; B. B. MATSUBARA. *UNESP, Inst. of Biosci., UNESP, Inst. of Biosci., UNESP, Med. Sch.*

1:00 GGG11 **279.05** Diet-induced obesity is associated with angiotensin-dependent microglial activation, astrogliosis and inflammation in the hypothalamus. A. D. DE KLOET*; D. NGUYEN; D. J. PIOQUINTO; L. WANG; E. G. KRAUSE; C. SUMNERS. *Univ. of Florida, Col. of Med., Univ. of Florida.*

2:00 GGG12 **279.06** Chronic treatment with phenytoin ameliorates the cardiac phenotype in a mouse model of Rett Syndrome. J. A. HERRERA*, JR; C. S. WARD; X. H. T. WEHRENS; J. L. NEUL. *Jan and Duncan Neurolog. Res. Instutite, Baylor Col. of Med.*

3:00 GGG13 **279.07** Proteomic analysis of the caudal ventrolateral medulla in an animal model of renovascular hypertension reveals signalling and metabolic dysfunction. A. K. GOODCHILD*; M. MIRZAEI; A. DING; J. K. PHILLIPS; P. HAYNES. *The Australian Sch. of Advanced Medicine, Macquarie Univ., Chem. and Biomolecular Sciences, Macquarie Univ.*

4:00 GGG14 **279.08** Baroreflex control of splanchnic, renal and lumbar sympathetic nerve activity is differentially regulated in chronic kidney disease. Y. YAO*; M. M. FARNHAM; P. M. PILOWSKY; J. K. PHILLIPS. *Macquarie Univ.*

1:00 GGG15 **279.09** Blunted pressor and renal sympathetic nerve stress response in a conscious rodent model of chronic kidney disease. I. M. SALMAN*; C. M. HILDRETH; J. L. HARRISON; J. K. PHILLIPS. *Macquarie Univ., Murdoch Univ.*

2:00 GGG16 **279.10** Computational evidence for synaptic gain in human sympathetic ganglia. J. P. HORN*; M. G. SPRINGER. *Univ. of Pittsburgh.*

3:00 GGG17 **279.11** Effects of G-loading and vibration on heart and breathing rate in humans. A. GODINEZ*; D. B. LISTON; R. AYZENBERG; L. S. STONE. *San Jose State Univ., NASA Ames Res. Ctr., Santa Clara Univ.*

4:00 GGG18 **279.12** Effect of moderate aerobic exercise on cardiovascular autonomic function in type 2 diabetes mellitus. R. K. GOIT*; N. K. MISHRA. *Nepalgunj Med. Col.*

1:00 GGG19 **279.13** Non-invasive vagus nerve stimulation reduces sympathetic nerve activity in healthy volunteers and heart failure patients. J. A. CLANCY*; D. A. MARY; K. K. WITTE; J. P. GREENWOOD; S. A. DEUCHARS; J. DEUCHARS. *Univ. of Leeds, Univ. of Leeds.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 GGG20 **279.14** Neural correlates of vascular reactivity to emotion and its interaction with attention. L. SCHAARE*; J. HOYER; J. MEHNERT; J. LEPSIEN; A. VILLRINGER; H. OKON-SINGER. *Max Planck Inst. For Human Cognitive and Brain Sci., Intl. Max Planck Res. Sch. NeuroCom, Mind-Brain Inst. at Berlin Sch. of Mind and Brain, Charité and Humboldt Univ., Univ. of Haifa.*

3:00 GGG21 **279.15** Sympathetic outflow in patients with obstructive sleep apnea and healthy controls correlates with grey matter thickness within the insula and cingulate cortex. K. S. TAYLOR*; A. J. MCREYNOLDS; P. J. MILLAR; H. MURAI; D. S. KIMMERLY; B. L. MORRIS; T. D. BRADLEY; J. S. FLORAS. *Univ. Hlth. Network, Mount Sinai Hosp.*

4:00 GGG22 **279.16** ▲ Effects of cold exposure on changes of sleep-related autonomic function and morning blood pressure surge: Human and animal studies. C. HONG*; T. KUO; C. YANG. *Natl. Yang-Ming Univ., Sleep Res. Center, Natl. Yang-Ming Univ.*

POSTER

280. Stress-Modulated Pathways: Brainstem and Other Responses to Stress

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GGG23 **280.01** Antidepressant-like effect of glucocorticoid receptor deletion in the dorsal raphé nucleus. M. Y. VINCENT*; L. JACOBSON. *Albany Med. Col.*

2:00 GGG24 **280.02** Chronic glucocorticoid intake alters basal Tph2 protein expression in anxiety- and resilience-related midbrain serotonergic systems. N. C. DONNER*; A. MATTI; C. A. LOWRY. *Univ. of Colorado Boulder.*

3:00 GGG25 **280.03** Peptidergic regulation of locus coeruleus output by local infusions of corticotropin releasing factor and the mu-opioid receptor agonist DAMGO: effects on sensory signal processing in noradrenergic terminal fields. G. A. ZITNIK*, III; B. D. CLARK; B. D. WATERHOUSE. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*

4:00 GGG26 **280.04** Chronic restraint stress decreases glial fibrillary acidic protein and glutamate transporter in the periaqueductal gray matter. H. IMBE*; A. KIMURA; T. DONISHI; Y. KANEOKE. *Wakayama Med. Univ.*

1:00 GGG27 **280.05** ▲ Effect of different corticosterone administration methods on corticosterone serum levels and forced swim test behavior in female rats. F. A. SHOUBAH; J. M. KOTT; S. BRUMMELTE*. *Wayne State Univ.*

2:00 GGG28 **280.06** Ketamine restores active coping behavior after stress in the rat defensive burying test - Evidence for a role of STAT3. M. GIROTTI*; J. J. DONEGAN; E. A. FUCICH; D. A. MORILAK. *Univ. Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr. San Antonio.*

3:00 GGG29 **280.07** Phenotypic relationships among multiple measures of stress reactivity. K. FITZPATRICK*; P. JIANG; M. H. VITATERNA; F. W. TUREK. *Northwestern Univ.*

4:00 GGG30 **280.08** ● Anti-stress effects of electro-acupuncture (EA) on the expression of corticotropin-releasing factor (CRF) and GABA receptors in the hypothalamus and hippocampus in acute stress rats<!--EndFragment-->. L. ZHU*; Y. FENG; G. WU; Z. TIAN. *Fudan Univ.*

1:00 GGG31 **280.09** Time-dependent increase in cortisol in response to an acute stressor and the role of the dopaminergic and serotoninergic system in zebrafish (Danio rerio). S. TRAN*; D. CHATTERJEE; R. GERLAI. *Univ. of Toronto, Univ. of Toronto.*

2:00 GGG32 **280.10** Adolescent cannabinoid treatment sex dependently alters adult stress responsivity. T. T. LEE*; S. R. WAINWRIGHT; M. N. HILL; L. A. M. GALEA; B. B. GORZALKA. *Univ. of British Columbia, Univ. of British Columbia, Univ. of Calgary, Univ. of British Columbia, Univ. of British Columbia.*

3:00 GGG33 **280.11** Orexin-1 receptor antagonism attenuates stress-induced arousal in rodents. S. YUN; J. SHELTON; P. BONAVENTURE; B. SHIREMAN; T. LOVENBERG; C. DUGOVIC*. *Janssen Res. & Develop.*

4:00 GGG34 **280.12** Toll-like receptor 4-mediated nuclear factor kappa B activation is essential for sensing exogenous oxidants to propagate and maintain oxidative/nitrosative cellular stress. O. J. IGWE*; R. KARKI. *Univ. Missouri- KC.*

1:00 GGG35 **280.13** Cytisine (partial nicotinic receptor agonist) can alter epinephrine responsiveness to insulin-induced recurrent hypoglycemia. B. B. NANKOVA*; N. KIRTOK; U. AKPAN; O. CHAN; E. LAGAMMA. *New York Med. Col., The Regional Neonatal Center, Maria Fareri Children's Hosp. at Westchester Med. Ctr., Yale Sch. of Med., New York Med. College, and Regional Neonatal Center, Maria Fareri Children's Hosp.*

2:00 GGG36 **280.14** Repeated restraint stress alters the corticosterone response to serotonin 1A receptor activation in males, but not females. N. GOEL*; V. VIAU. *Univ. of British Columbia.*

3:00 GGG37 **280.15** Partial insulin-like growth factor 1 (igf-1) deficiency promotes cerebral oxidative damage. J. E. PUCHE; U. MUÑOZ; L. GUERRA; I. CASTILLA DE CORTAZAR*. *Univ. CEU San Pablo.*

4:00 GGG38 **280.16** The use of designer receptors exclusively activated by designer drugs (DREADDS) to elucidate the role of orexins in adaptations to stress. S. BHATNAGAR*; A. SENGUPTA; W. HEYDENDAEL; J. PEARSON-LEARY; G. KELLY; D. PIEL; S. BECK. *Univ. Pennsylvania, Children's Hosp Philadelphia, Children's Hosp. of Philadelphia.*

1:00 GGG39 **280.17** ● Noise stress increases *in vivo* tryptophan hydroxylase activity in serotonergic systems and within anxiety and emotion related brain regions. J. H. FOX*; E. D. PAUL; B. M. SPANNUTH; M. W. HALE; C. A. LOWRY. *Univ. of Colorado, La Trobe Univ.*

2:00 GGG40 **280.18** Cortisol expression and related behavior change in the zebrafish (danio rerio). D. J. ECHEVARRIA*; A. D. COLLIER; D. J. JOUANDOT; C. BREAZEALE. *Univ. Southern Mississippi, Brother Martin High Sch., Southern Illinois Univ.*

POSTER

281. Entrainment of Circadian Rhythms and Sleep

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GGG41 **281.01** Neonicotinoid pesticide disrupts circadian locomotor behavior in *Drosophila.* M. TACKENBERG*; K. BROADIE; D. G. MCMAHON. *Vanderbilt Univ., Vanderbilt.*

2:00 GGG42 **281.02** ▲ Perinatal exposure to nicotine alters circadian system's response and synchronization in the juvenile mouse. M. FUENTES-CANO*; X. RINZA-FERNÁNDEZ; P. DURAN. *Facultad De Ciencias, UNAM, Facultad De Ciencias, UNAM.*

3:00 GGG43 **281.03** Analysis of complexity and regularity of spontaneous locomotion in group-housed mice: A novel predictive approach based on freely behaving animals. S. SPULBER*; M. CONTI; N. ONISHCHENKO; S. CECCATELLI. *Karolinska Institutet, Dept. of Neurosci.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 GGG44 **281.04** Involvement of tPA and LRP-1 in regulating mammalian circadian clock phase. J. COOPER*; R. A. PROSSER. *Univ. of Tennessee.*

1:00 GGG45 **281.05** Matrix metalloproteinases 2/9 as potential regulators of the suprachiasmatic nucleus circadian clock. K. E. ABRAHAMSSON; R. A. PROSSER*. *Univ. Tennessee.*

2:00 GGG46 **281.06** Effects of intergeniculate leaflet (IGL) lesions on behavioral and brain responses to photic stimuli in diurnal grass rats. A. J. GALL*; L. SMALE; L. YAN; A. NUNEZ. *Michigan State Univ.*

3:00 GGG47 **281.07** Investigating MAPK pathway involvement in TTM- and Cu-induced phase shifts of the SCN circadian clock. Y. YAMADA*; R. A. PROSSER. *Univ. of Tennessee.*

4:00 GGG48 **281.08** Alcohol tolerance and withdrawal using the suprachiasmatic nucleus (SCN) circadian clock as a model system. J. H. LINDSAY*; J. D. GLASS; R. A. PROSSER. *Univ. of Tennessee Knoxville, Kent State Univ., Univ. of Tennessee.*

1:00 HHH1 **281.09** K2P channels play a key role in defining irradiance detection and circadian photoentrainment in mice. L. A. ATKINSON*; A. A. MATHIE; G. S. LALL. *Univ. of Kent.*

2:00 HHH2 **281.10** Dim light at night does not disrupt timing or quality of sleep in mice. J. C. BORNIGER*; Z. M. WEIL; N. ZHANG; R. J. NELSON. *The Ohio State Univ. Wexner Med. Ctr.*

3:00 HHH3 **281.11** Rapid circadian reentrainment after simulated travel to anti-meridian time zones in Syrian hamsters. E. M. HARRISON*; M. R. GORMAN. *UCSD.*

4:00 HHH4 **281.12** Alterations in light signalling are key contributors to the decline of circadian photoentrainment in aged mammals. S. M. BIELLO; D. R. BONSALL; L. A. ATKINSON; P. C. MOLYNEUX; M. E. HARRINGTON; G. S. LALL*. *Univ. of Glasgow, Smith Col., Univ. of Kent.*

1:00 HHH5 **281.13** Light intensity requirements for induction and maintenance of bifurcated circadian rhythms in mice under light:dark:light:dark cycles. J. SUN*; M. GORMAN. *Gorman Circadian Res. Lab., Univ. of California - San Diego.*

2:00 HHH6 **281.14** ▲ Changes in sleep architecture of C57BL/6J mice in response to a short photoperiod. S. V. ROZOV*; J. C. ZANT; T. H. PORKKA-HEISKANEN; P. PANULA. *Inst. of Biomedicine, Inst. of Biomedicine.*

3:00 HHH7 **281.15** The effect of chronic photoperiod shifting on metabolism and stress in female Long-Evans rats. S. DEIBEL*; S. M. DERKSEN; N. S. HONG; R. J. MCDONALD. *Univ. of Lethbridge.*

4:00 HHH8 **281.16** Melatonin does not improve re-entrainment after light-dark cycle shift in mice with the double knockout of Epac1 and Epac2. Z. XIAN*; S. CHEUNG; Y. WONG; S. CHUNG. *The Univ. of Hong Kong, The Hong Kong Univ. of Sci. and Technol., The Univ. of Hong Kong.*

1:00 HHH9 **281.17** Obese mice Neotomodon alstonii present an altered phase in daily rhythms of hypothalamic leptin and ghrelin receptors. D. LUNA-MORENO; M. MIRANDA-ANAYA*; C. LUNA-ILLADES; A. CARMONA-CASTRO. *Facultad De Ciencias, UNAM, Facultad De Ciencias, UNAM.*

2:00 HHH10 **281.18** Modeling spontaneous internal desynchrony of sleep-wake behavior and the circadian rhythm in humans. V. BOOTH; R. GLEIT; C. DINIZ BEHN*. *Univ. of Michigan, Gettysburg Col.*

3:00 HHH11 **281.19** Serotonergic enhancement of photic phase shifts: IGL. R. T. JEFFERS*; V. M. SMITH; M. C. ANTLE. *Univ. of Calgary, Univ. of Calgary, Univ. of Calgary.*

4:00 HHH12 **281.20** The timing of Corticosterone peak circulation affects clock gene rhythmic expression in the rat prefrontal cortex. L. R. WOODRUFF*; L. E. CHUN; L. R. HINDS; R. L. SPENCER. *Univ. of Colorado At Boulder.*

1:00 HHH13 **281.21** Effect of arousal or a novel wheel on the circadian rhythm of luteinizing hormone (LH) surges and locomotor activity in estradiol-treated ovariectomized (ovx+EB) hamsters. S. J. LEGAN*; X. PENG; C. YUN; K. M. FRANKLIN; M. J. DUNCAN. *Univ. Kentucky, Univ. Kentucky.*

2:00 HHH14 **281.22** The activational mechanisms underlying the impact of estrogen on the formation and expression of circadian rhythms in mice. S. E. ROYSTON*; A. G. KONDILIS; S. V. LORD; N. YASUI; J. A. KATZENELLENBOGEN; M. M. MAHONEY. *Univ. of Illinois Urbana-Champaign, Univ. of Illinois Urbana-Champaign, Univ. of Illinois Urbana-Champaign, Univ. of Illinois Urbana-Champaign.*

3:00 HHH15 **281.23** Nighttime light exposure impairs affective responses in a wavelength-dependent manner. T. A. BEDROSIAN*; C. A. VAUGHN; A. GALAN; G. DAYE; Z. M. WEIL; R. J. NELSON. *Ohio State Univ.*

4:00 HHH16 **281.24** ▲ Chronic exposure to dim nighttime light provokes depressive-like responses in mice. C. A. VAUGHN*; T. A. BEDROSIAN; Z. M. WEIL; R. J. NELSON. *The Ohio State Univ. Wexner Med. Ctr.*

1:00 HHH17 **281.25** Drugs that prevent sleep also block light-induced locomotor suppression, circadian rhythm phase shifts and the drop in core temperature. L. P. MORIN*; P. VIVANCO; K. M. STUDHOLME. *STONY BROOK UNIVERSITY MEDICAL CENTER, Univ. of Murcia.*

2:00 HHH18 **281.26** Role of orexin neurons in novel wheel-induced blockade of the preovulatory luteinizing hormone (LH) surge in Syrian hamsters. M. J. DUNCAN*; K. M. FRANKLIN; X. PENG; C. YUN; S. J. LEGAN. *Univ. Kentucky Med. Ctr., Univ. Kentucky Med. Ctr.*

3:00 HHH19 **281.27** ▲ Role of the dorsal medial habenula in the regulation of circadian rhythms. J. GILE; Y. T. HSU; G. MORTON; S. D. WANG; E. E. TURNER; H. O. DE LA IGLESIA*. *Univ. of Washington, Seattle Children's Res. Inst.*

4:00 HHH20 **281.28** ▲ Pavlovian fear conditioning following manipulation of circadian waveform. C. L. BLOCK*; E. HARRISON; M. GORMAN. *UCSD.*

1:00 HHH21 **281.29** Vestibular system, a new synchronization pathway of biological rhythms? T. MARTIN*; B. MAUVIEUX; J. BULLA; B. PHILOXENE; M. MACHADO; G. QUARCK; D. DAVENNE; P. DENISE; S. BESNARD. *U1075 COMETE UCBN/INSERM, Univ. De Caen Basse Normandie.*

2:00 HHH22 **281.30** The olfactory bulb and the piriform cortex anticipate feeding time during food anticipatory activity in the rat. M. PABELLO*; M. L. MORENO; E. MEZA; M. CABA. *Doctorado En Ciencias Biomédicas CIB, Univ. Veracruzana, Ctr. de Investigaciones Biomedicas, Univ. Veracruzana.*

POSTER

282. Blood Flow and Blood Brain Barrier

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

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HHH23 **282.01** A novel approach for the determination of cytotoxicity in an *in vitro* blood-brain barrier model. Q. GU*; S. LANTZ; H. ROSAS-HERNANDEZ; E. CUEVAS; S. SARKAR; L. SCHMUED; V. KRAUTHAMER; M. G. PAULE; S. F. ALI. *Natl. Ctr. For Toxicological Research/FDA, Ctr. for Devices and Radiological Health/FDA.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

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2:00 HHH24 **282.02** The effect of chronic treatment with atypical antipsychotic drugs to P-glycoprotein in the mice brain. T. WATANABE*; K. OSADA; T. HAGA; Y. OGAWA; A. MUTO; A. TAGUCHI; T. YANAGIDA; M. NAKANO; Y. SASUGA; N. YAMAGUCHI. *St. Marianna Univ. Sch. of Med.*

3:00 HHH25 **282.03** Mechanistic insights into altered glycaemia-induced blood-brain barrier dysfunction *in vitro.* R. K. SAJJA*; S. PRASAD; P. NAIK; L. CUCULLO. *Texas Tech. Univ. Hlth. Sci. Ctr.*

4:00 HHH26 **282.04** Regulation of steroid disposition and animal aggression by Mdr1 and BCRP. R. MUNJI*; R. DANEMAN; R. BAINTON. *Univ. of California - San Francisco, Univ. of California - San Francisco.*

1:00 HHH27 **282.05** Arachnoid cell morphology/physiology in fibroblast co-cultures. C. H. LAM*; E. HANSEN. *Univ. of Minnesota, VA Med. Ctr.*

2:00 HHH28 **282.06** Regional disparities in cerebral blood flow velocity changes induced by visual vs. executive function tasks. T. BURNETT*; P. AINSLIE; P. VAN DONKELAAR. *Univ. of British Columbia - Okanagan.*

3:00 HHH29 **282.07** Optogenetic activation of mouse cortical inhibitory interneurons is sufficient to increase local blood flow. E. ANENBERG*; J. LEDUE; T. H. MURPHY. *Univ. of British Columbia, Univ. of British Columbia.*

4:00 HHH30 **282.08** Effective cerebral blood volume enhancement by flexible, transparent, and non-cytotoxic graphene electric field stimulator. C. HEO*; S. LEE; A. JO; S. JUNG; M. SUH; Y. LEE. *Sung Kyun Kwan Univ., Sung Kyun Kwan Univ.*

1:00 HHH31 **282.09** Capillaries dilate in brain slices and *in vivo* in response to neuronal activation, and may initiate the vascular response. C. N. HALL*; C. REYNELL; B. GESSLEIN; N. HAMILTON-WHITAKER; A. MISHRA; D. ATTWELL. *Univ. Col. London, Univ. of Copenhagen.*

2:00 HHH32 **282.10** Intranasal targeting of antibodies to the central nervous system: A potential noninvasive strategy for chronic immunotherapy against brain disorders. J. J. LOCHHEAD*; N. KUMAR; C. VIESSELMANN; R. THORNE. *Univ. of Wisconsin, Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

3:00 HHH33 **282.11** ● Novel recombinant T cell receptor ligand RTL 1000 is effective in the murine model of female stroke. J. M. PALMATEER; J. PAN; T. SCHALLERT; H. OFFNER; P. D. HURN*. *Univ. of Texas at Austin, Univ. of Texas at Austin, Veteran's Affairs Med. Ctr., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., The Univ. of Texas Syst.*

4:00 HHH34 **282.12** MCT1 function in cerebral microvascular endothelial cells is decreased by cAMP through a mechanism that reduces trafficking to the cell surface. J. P. SMITH*; L. LI; N. LAVOY; M. J. VELASQUEZ; A. L. UHERNIK. *Colorado State Univ.-Pueblo.*

1:00 HHH35 **282.13** Probing neurovascular coupling via natural and driven vasomotion in the awake mouse. C. MATEO*; P. S. TSAI; A. Y. SHIH; D. KLEINFELD. *UCSD, Med. Univ. of South Carolina, UCSD.*

2:00 HHH36 **282.14** Arachnoid cell motility in fibroblast co-cultures. E. A. HANSEN*; C. YUAN; C. LAM. *VA Med. Ctr., Univ. of Minnesota.*

3:00 HHH37 **282.15** ● Identification of candidate genes acting as Notch-regulators and their role under hypoxic conditions. T. STOBDAN*; D. ZHOU; G. HADDAD. *Univ. of California San Diego, Rady Children's Hosp., Univ. of California San Diego.*

4:00 HHH38 **282.16** Are resting state and stimulus-evoked neurovascular coupling different? Y. MA*; A. RAYSHUBSKIY; S. H. KIM; D. TIMERMAN; M. G. KOZBERG; E. M. C. HILLMAN. *Columbia Univ.*

1:00 HHH39 **282.17** Histochemical characterization of Wfs1 protein in mouse pituitary. K. TEIN*; A. TERASMAA; E. VASAR; S. KÕKS. *Tartu Univ.*

2:00 HHH40 **282.18** Convection-enhanced delivery based staining method and simultaneous multi-wavelength optical imaging of calcium and intrinsic signals. H. MA*; S. HARRIS; M. ZHAO; J. BERWICK; T. H. SCHWARTZ. *Weill Med. Sch. Cornell Univ., Univ. of Sheffield.*

3:00 HHH41 **282.19** ● Longitudinal assessment of resting state functional connectivity variance in the rat brain. S. H. KIM*; V. VOLETI; Y. MA; E. RAMIREZ; M. G. KOZBERG; M. B. BOUCHARD; B. R. CHEN; A. RAYSHUBSKIY; E. M. C. HILLMAN. *Columbia Univ. Lab. For Functional Optical Imaging.*

4:00 HHH42 **282.20** Mitochondrial Ca^{2+} uptake capacity impacts both intrinsic and evoked brain activities. S. S. KANNURPATTI*; B. G. SANGANAHALLI; P. HERMAN; F. HYDER. *Umdnj-New Jersey Med. Sch., Yale Univ. Sch. of Med.*

1:00 HHH43 **282.21** The brain modulatory effect of focused ultrasound-induced blood-brain barrier disruption. H. LAI*; P. CHU; H. TSAI; K. CHANG; Y. SHIH; H. LIU; Y. CHEN; Y. PEI. *Dept. of Physical Med. and Rehabilitation, Chang Gung Mem. Hosp., Healthy Aging Res. Center, Chang Gung Univ., Dept. of Electrical Engineering, Chang Gung Univ., Dept. of Neurosurgery, Chang Gung Mem. Hosp., Dept. of Life Sciences, Natl. Yang Ming Univ., Dept. of Neurology, Univ. North Carolina, Dept. of Biomed. Engineering, Natl. Yang Ming Univ.*

POSTER

283. Human Learning: Reinforcement and Reward

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HHH44 **283.01** Conditioned place preferences in hungry and non-hungry humans. R. S. ASTUR*; A. W. CAREW; B. E. DEATON. *Univ. of Connecticut.*

2:00 HHH45 **283.02** ▲ Skill acquisition in piano performance: The influence of flow on learning. Y. MIYAKE*; H. YANO; A. NAKAMURA; K. KATAHIRA; S. FURUYA; N. NAGATA. *Kwansei Gakuin Univ., Hannover Univ. of Music, Drama and Media.*

3:00 HHH46 **283.03** Neural basis of cognitive and motivational dynamics relevant to sustainable human-agent interaction: An fMRI study. T. NOZAWA*; Y. SASAKI; R. YOKOYAMA; Y. AKIMOTO; R. NOUCHI; M. SUGIURA; T. KONDO; R. KAWASHIMA. *Japan / Tohoku Univ., Tokyo Univ. of Agr. and Technol.*

4:00 III1 **283.04** A computational cognitive neuroscience model of complex skill learning. V. V. VALENTIN*; W. T. MADDOX; R. MUSGRAVE; F. G. ASHBY. *Univ. of California, Santa Barbara, Univ. of Texas at Austin.*

1:00 III2 **283.05** Post traumatic stress disorder (PTSD) impairs reward learning on a probabilistic category task. M. M. HERZALLAH*; A. D. BROWN; D. ABU-AMARA; J. SCOTT; K. THACHER; C. R. MARMAR; M. A. GLUCK. *Rutgers, The State Univ., Al-Quds Univ., NYU.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 III3 **283.06** Distinct neural computations mediating observational learning derived from facial expressions versus words. D. A. STANLEY*; J. STANLEY; R. M. PIECH; J. P. O'DOHERTY. *Caltech, Trinity Col. Dublin, Anglia Ruskin Univ.*

3:00 III4 **283.07** Behavioral neurostimulation: Sustained activation of the human dopaminergic midbrain using real-time fMRI. K. C. DICKERSON*; J. J. MACINNES; R. A. ADCOCK. *Duke Univ.*

4:00 III5 **283.08** Dissociating specific and general conditioned responses in Pavlovian aversive conditioning. S. ZHANG*; H. MANO; G. GOWRISHANKAR; T. ROBBINS; B. SEYMOUR. *Natl. Inst. of Information and Communications Technol., Univ. of Cambridge, Univ. of Cambridge.*

1:00 III6 **283.09** The role of adaptive decision noise in exploration. R. C. WILSON*; J. M. WHITE; J. D. COHEN. *Princeton Univ., Princeton Univ.*

2:00 III7 **283.10** Adjustment to variability in a reward learning task is beneficial for performance. K. M. DIEDEREN*; T. J. SPENCER; P. C. FLETCHER; W. SCHULTZ. *Univ. of Cambridge, Univ. of Cambridge.*

3:00 III8 **283.11** Stress and pressure: Differential effects on physiological reactivity and cognitive performance. S. B. HUTCHINSON*; S. K. MCCOY; L. HAWTHORNE; S. W. ELL. *Univ. of Maine - Psychology Dept., Univ. of Maine.*

4:00 III9 **283.12** Neural computations mediating one-shot learning in the human brain. S. LEE*; J. P. O'DOHERTY; S. SHIMOJO. *Caltech.*

1:00 III10 **283.13** Brain activity by selfish partner dynamically modulates the reward-related cortical network. M. SHIKAUCHI*; H. MIZUHARA. *Advanced Telecommunications Res. Inst. Intl. (ATR), Kyoto Univ.*

2:00 III11 **283.14** Moving from model-free to model-based RL in a probabilistic learning environment: A generalized hierarchical reinforcement learning model. M. BALCARRAS*; S. ARDID; T. WOMELSDORF. *York Univ., York Univ.*

3:00 III12 **283.15** What should you do when you don't know what to do: Balancing the tradeoff between reward exploitation and information extraction. J. COCKBURN*; M. J. FRANK. *Brown Univ.*

4:00 III13 **283.16** The reward neural network mediates optimistic belief updates. B. KUZMANOVIC*; K. VOGELEY. *Res. Ctr. Juelich, INM-8, Univ. Hosp. Cologne, Res. Ctr. Juelich, INM-3.*

1:00 III14 **283.17** Conditioned responses to a drug cue in healthy, non-dependent humans. L. M. MAYO*; H. DE WIT. *Univ. of Chicago.*

2:00 III15 **283.18** Intrinsic connectivity within and between large-scale functional brain networks supports learning. R. T. GERRATY*; J. Y. DAVIDOW; I. KAHN; D. SHOHAMY. *Columbia Univ., Technion- Israel Inst. of Technol.*

3:00 III16 **283.19** The neural correlates of aberrant emotional learning and flexibility in OCD. A. M. APERGIS-SCHOUTE*; C. M. GILLAN; J. A. BLAY; E. FERNANDEZ-EGEA; N. A. FINEBERG; T. W. ROBBINS; B. J. SAHAKIAN. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Cambridge, Hertfordshire Partnership NHS Fndn. Trust.*

4:00 III17 **283.20** A Bayesian approach to model-based reinforcement learning. E. M. MILLER*; S. PIANTADOSI; N. GOODMAN; S. M. MCCLURE. *Stanford Univ., Univ. of Rochester.*

1:00 III18 **283.21** Neural correlates of model-based and model-free reinforcement learning strategies. B. B. DOLL*; K. D. DUNCAN; D. A. SIMON; D. SHOHAMY; N. D. DAW. *New York Univ., Columbia Univ.*

2:00 III19 **283.22** Cue-approach training influences choice behavior via modulation of reward-related circuitry. T. SCHONBERG*; A. BAKKOUR; A. M. HOVER; J. PEREZ; L. NAGAR; J. A. MUMFORD; R. A. POLDRACK. *The Univ. of Texas At Austin, The Univ. of Texas at Austin, The Univ. of Texas at Austin, The Univ. of Texas at Austin, The Univ. of Texas at Austin.*

3:00 III20 **283.23** Neural circuitry underlying extinction learning with appetitive and aversive conditioned stimuli. A. H. LEWIS*; H. MANGLANI; M. R. DELGADO. *Rutgers Univ.*

4:00 III21 **283.24** Single-cell responses in human OFC, amygdala and ACC during two different neuroeconomic tasks. M. R. HILL*; E. D. BOORMAN; C. KOCH; I. FRIED. *Caltech, Caltech, UCLA.*

1:00 III22 **283.25** Memory recall for high value items correlates with individual differences in white matter pathways associated with reward processing and fronto-temporal communication. N. REGGENTE; M. S. COHEN; Z. ZHENG; N. G. DE SHETLER; A. D. CASTEL; B. J. KNOWLTON; J. RISSMAN*. *UCLA.*

2:00 III23 **283.26** Resting-state functional connectivity of automatically segmented nucleus accumbens in a large sample. J. F. HUCKINS*; T. F. HEATHERTON; W. M. KELLEY. *Dartmouth Col., Dartmouth Col.*

3:00 III24 **283.27** Episodic memory interferes with reward learning and decreases striatal prediction errors. G. WIMMER*; E. K. BRAUN; N. D. DAW; D. SHOHAMY. *Univ. Med. Ctr. Hamburg-Eppendorf, Columbia Univ., New York Univ.*

4:00 III25 **283.28** Why do we structure our knowledge? Two levels of rule generalization in reinforcement learning. A. G. COLLINS*; M. J. FRANK. *Brown University, CLPS.*

1:00 III26 **283.29** Slow and fast-spiking neurons in the human substantia nigra are functionally distinct during reinforcement learning. A. G. RAMAYYA*; K. ZAGHLOUL; C. T. WEIDEMANN; B. LEGA; M. KAHANA; G. BALTUCH. *Univ. of Pennsylvania, NINDS, Natl. Inst. of Hlth., Swansea Univ., Univ. of Pennsylvania.*

POSTER

284. Human Long-Term Memory: Encoding-Retrieval Interactions

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 III27 **284.01** Intracranial spectral activity comparison between recognition and recall. M. B. MERKOW*; J. F. BURKE; M. J. KAHANA. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

2:00 III28 **284.02** The influence of selective attention at encoding on post-retrieval monitoring. J. ARNDT; A. L. DUARTE*. *Middlebury Col., Georgia Inst. Technol.*

3:00 III29 **284.03** Physiological relevance of estrogen effects on memory across the menstrual cycle of young women. A. POMPILI; M. D'AMICO; B. ARNONE; P. FEDERICO; A. GASBARRI*. *Univ. of L'Aquila, Dept. of Applied Clin. and Biotechnologic Scien.*

4:00 III30 **284.04** Multivariate algorithm for trial-by-trial estimate of goodness of encoding using human intracranial EEG. J. BURKE*; R. HAQUE; M. J. KAHANA. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

1:00 III31 **284.05** Boosting recall of childhood memories with a child-size body illusion. L. BERGOUIGNAN*; B. VAN DER HOORT; H. H. EHRSSON. *Karolinska Institutet.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 III32 **284.06** Alternating study and retrieval practice leads to neural and behavioral differentiation of competing memory representations. J. C. HULBERT*; K. A. NORMAN. *Princeton Univ.*

3:00 III33 **284.07** Time perception and contextual drift with a naturalistic stimulus. O. LOSITSKY*; D. TOKER; J. CHEN; C. J. HONEY; J. L. POPPENK; U. HASSON; K. A. NORMAN. *Princeton Univ.*

4:00 III34 **284.08** EEG and behavioral evidence for auditory directed forgetting in older adults. M. E. CANO*; R. T. KNIGHT. *UC Berkeley, UC Berkeley.*

1:00 III35 **284.09** Reinstatement of content-specific intracranial EEG activity during retrieval in a spatial navigation task. H. ZHANG*; J. FELL; B. STARESINA; N. AXMACHER. *Univ. of Bonn, Univ. of Bonn, Med. Res. Council Cognition and Brain Sci. Unit, German Ctr. for Neurodegenerative Dis.*

2:00 III36 **284.10** Neural correlates of memory encoding as a function of practice. N. M. LONG*; M. J. KAHANA. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

3:00 III37 **284.11** Interacting signals of memory during competitive encoding. J. HUTCHINSON*; N. B. TURK-BROWNE. *Princeton Univ.*

4:00 III38 **284.12** Brain structural differences associated with mnemonic control. G. LERMA-USABIAGA*; L. GARCIA-PENTON; M. CARREIRAS; P. PAZ-ALONSO. *BCBL, Basque Ctr. on Cognition, Brain and Language, IKERBASQUE, Basque Fndn. for Sci., UPV/EHU.*

1:00 III39 **284.13** fMRI examination of motivated learning and memory of scenes in adults and adolescents. A. MATTFELD*; M. SHERMOHAMMED; J. D. E. GABRIELI. *MIT, MIT.*

2:00 III40 **284.14** The oscillatory signature of voluntary forgetting: Intracranial EEG data from prefrontal cortex and hippocampus. C. OEHRN*; J. FELL; C. BAUMANN; S. HANSLMAYR; M. LESZCZYNSKI; A. JAHANBEKAM; A. T. DO LAM; C. E. ELGER; N. AXMACHER. *Univ. of Bonn, Univ. of Konstanz.*

3:00 III41 **284.15** Recall order is predicted by category-specific neural activity of preceding items at study. S. C. Y. CHAN*; M. C. APPLEGATE; J. R. MANNING; N. W. MORTON; S. M. POLYN; K. A. NORMAN. *Princeton Univ., Vanderbilt Univ.*

4:00 III42 **284.16** Periodic interplay between inhibition and maintenance in the human hippocampus during working memory task. M. LESZCZYNSKI*; J. FELL; C. OEHRN; A. DO LAM; C. E. ELGER; N. AXMACHER. *Univ. of Bonn, German Ctr. for Neurodegenerative Dis.*

1:00 III43 **284.17** Memory for shape reactivates the lateral occipital complex. J. M. KARANIAN*; S. D. SLOTNICK. *Boston Col.*

2:00 III44 **284.18** Oscillating auditory stimulation during sleep promotes sleep spindles. J. W. ANTONY*; J. BAE; K. A. PALLER. *Northwestern Univ., Northwestern Univ.*

3:00 III45 **284.19** Evolution of hippocampal involvement in tactile-kinesthetic memory encoding and retrieval. L. T. LIKOVA*. *Smith-Kettlewell Eye Res.*

4:00 III46 **284.20** Genotypes of the rs2180619, located on the regulatory region of the CNR1, exhibit differential accuracy during encoding but not during retrieval in an episodic memory task. A. E. RUIZ-CONTRERAS*; L. Y. FLORES-BARRERA; C. B. ROSAS-ESCOBAR; U. CABALLERO-SÁNCHEZ; T. V. ROMAN-LÓPEZ; M. A. BARRERA-TLAPA; E. I. ORTEGA-MORA; Z. MUÑOZ-TORRES; K. CARRILLO-SÁNCHEZ; S. ROMERO-HIDALGO; S. HERNÁNDEZ-MORALES; F. VADILLO-ORTEGA; O. PROSPÉRO-GARCÍA. *Lab. Neurogenomica Cognitiva, Fac. Psicologia, UNAM, Grupo de Neurociencias: Lab. de Canabinoides, Depto. de Fisiología, Fac. de Medicina, Inst. Nacional de Medicina Génomica, UNAM/INMEGEN.*

POSTER

285. Language II

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ1 **285.01** The effects of perceptual distortion, age and proficiency on functional activation for sentence comprehension. S. KRISHNAN*; R. LEECH; E. MERCURE; S. LLOYD-FOX; F. DICK. *Birkbeck, Univ. of London, Imperial Col., UCL.*

2:00 JJJ2 **285.02** Recognition of novel words learnt with levodopa modulates striatal and temporal cortical activity. A. RAWLINGS*; K. MCMAHON; A. MACDONALD; E. FINCH; P. SILBURN; P. NATHAN; D. A. COPLAND. *Univ. of Queensland, Univ. of Queensland, Univ. of Queensland, Univ. of Cambridge.*

3:00 JJJ3 **285.03** Involvement of left inferior frontal cortex in processing compound words for lexical decision. W. KUO*. *Natl. Yang-Ming Univ.*

4:00 JJJ4 **285.04** Cortical organization of semantic representations for natural speech revealed by fMRI. A. G. HUTH*; W. A. DE HEER; F. E. THEUNISSEN; T. L. GRIFFITHS; J. L. GALLANT. *UC Berkeley, UC Berkeley.*

1:00 JJJ5 **285.05** **Unable to Attend.** Language lateralization in 297 healthy volunteers: Association with manual preference strength exists only in left-handers. N. TZOURIO-MAZOYER*; D. MARIE; L. ZAGO; G. JOBARD; E. MELLET; L. PETIT; F. CRIVELLO; M. JOLIOT; B. MAZOYER. *GIN UMR 5296 CNRS CEA Univ. Bordeaux.*

2:00 JJJ6 **285.06** The perception of speech in noise and other maskers by musicians and non-musicians. D. BOEBINGER*; S. EVANS; C. LIMA; N. LAVAN; S. ROSEN; S. K. SCOTT. *Inst. of Cognitive Neuroscience, Univ. Col. London, Speech, Hearing & Phonetic Sciences, Univ. Col. London.*

3:00 JJJ7 **285.07** Neural correlates of contextual variability in second language learning. L. VERGA*; S. A. KOTZ. *Max Planck Inst., Manchester Univ.*

4:00 JJJ8 **285.08** Does early exposure to a visual signed language "hurt" auditory language tissue development: Evidence from fNIRS neuroimaging of language processing in deaf individuals cochlear implants. K. K. JASINSKA*; C. LANGDON; L. PETITTO. *Univ. of Toronto Scarborough, Gallaudet Univ., Univ. of Toronto.*

1:00 JJJ9 **285.09** Differential activation patterns in visual and motor areas after enriched foreign language learning. K. M. MAYER*; I. B. YILDIZ; M. MACEDONIA; K. VON KRIEGSTEIN. *Max Planck Inst. For Human Cognitive and Brain Sci., Col. de France, Johannes Kepler Univ. Linz.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 JJJ10 **285.10** Identifying hub structures of emotional speech in the human brain. S. A. KOTZ*; S. K. SCOTT; S. ROSEN; J. OBLESER. *Max-Planck Inst. Cog & Brain Sci., UCL, UCL, MPI for Human Cognitive and Brain Sci.*

3:00 JJJ11 **285.11** ▲ Selective grammatical comprehension deficits in non-fluent/agrammatic primary progressive aphasia. D. CHARLES; C. OLM; J. POWERS; S. ASH; D. J. IRWIN; C. T. MCMILLAN; K. RASCOVSKY; M. GROSSMAN*. *Univ. Pennsylvania Sch. Med.*

4:00 JJJ12 **285.12** Modulation of phonological selection on interhemispheric connectivity. C. WU*; M. R. HO; K. MATSUO; W. I. TSENG; C. HUE; S. A. CHEN. *Nanyang Technological Univ., Natl. Taiwan Univ. Col. of Med. and Hosp., Natl. Taiwan Univ.*

1:00 JJJ13 **285.13** Onomatopoeias and mimetic words represent mirror system but generate different mental images: An fMRI study. K. YAOI*; T. MINAMOTO; M. OSAKA; N. OSAKA. *Kyoto Univ., Osaka Univ.*

2:00 JJJ14 **285.14** Reading abilities in different languages are linked to variations in the same white matter microstructure. M. ZHANG*; C. CHEN; G. XUE; L. MEI; H. XUE; Q. DONG. *Researching Backup Solutions, Univ. of California, Irvine, Beijing Normal Univ.*

3:00 JJJ15 **285.15** Silences in speech in primary progressive aphasia. S. ASH*; D. WEINBERG; J. HALEY; A. BOLLER; J. POWERS; C. MCMILLAN; M. GROSSMAN. *Univ. Pennsylvania Sch. Med.*

4:00 JJJ16 **285.16** Language context modulates reading route selection: An electrical neuroimaging study. K. BUETLER*; D. DE LEÓN RODRÍGUEZ; M. LAGANARO; R. MÜRI; L. SPIERER; J. ANNONI. *Univ. of Fribourg, Univ. of Geneva, Univ. of Bern.*

1:00 JJJ17 **285.17** Phonemic versus allophonic status modulates early brain responses to language sounds: An MEG/ERF study. A. H. NIELSEN*; L. GEBAUER; W. B. MCGREGOR; M. WALLENTIN. *Aarhus Univ., Aarhus Univ., Aarhus Univ.*

2:00 JJJ18 **285.18** ● Role of posterior temporal lobe for language production revealed by transcranial magnetic stimulation study. Y. CHOI*; H. PARK; N. PAIK. *Seoul Natl. Univ. Bundang Hosp.*

3:00 JJJ19 **285.19** Reading without speech sounds: VWFA and its connectivity in the congenitally deaf. X.; A. CARAMAZZA; M. V. PEELEN; Z. HAN; Y. BI. *Beijing Normal Univ., Harvard Univ., Univ. of Trento.*

4:00 JJJ20 **285.20** The role of high gamma power and theta- and alpha-phase coherence in brain network dynamics during language production. J. C. CASE*; E. CHANG; N. E. CRONE; J. PARVIZI; R. T. KNIGHT; A. Y. SHESTYUK. *Univ. of California, Berkeley, Dept. of Neurology, Surgery, and Physiol., Dept. of Neurology, The Johns Hopkins Univ. Sch. of Med., Dept. of Neurol. and Neurolog. Sci., Stanford Human Intracranial Cogntive Electrophysiology Program, Stanford Sch. of Med., Dept. of Psychology, Univ. of California.*

POSTER

286. Decision Making: Drift Diffusion Models and Perception

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ21 **286.01** The μ-opioid system optimizes human reward behavior, a drift diffusion model account. M. EIKEMO*; G. BIELE; F. WILLOCH; S. LEKNES. *Univ. of Oslo, Univ. of Oslo, Univ. of Oslo.*

2:00 JJJ22 **286.02** A drift-diffusion model of decision-making in dynamic environments. C. M. GLAZE*; J. I. GOLD. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

3:00 JJJ23 **286.03** Neural activity build-up during decision-making is not caused by evidence accumulation but by a growing urge to act. P. E. CISEK*; D. THURA. *Univ. of Montreal.*

4:00 JJJ24 **286.04** Tracking the integration of time-varying sensory evidence with human EEG. K. E. KAYE*; E. F. ESTER; J. T. SERENCES. *UCSD.*

1:00 JJJ25 **286.05** The role of the subthalamic nucleus in multiple alternative perceptual decision-making revealed by 7T structural and functional MRI. M. C. KEUKEN*; L. VAN MAANEN; R. BOGACZ; A. SCHAEFER; J. NEUMANN; R. TURNER; B. U. FORSTMANN. *UvA, Max Planck Inst. for Human Cognitive and Brain Sci., Univ. of Bristol.*

2:00 JJJ26 **286.06** Perceptual decisions in the presence of relevant and irrelevant sensory evidence. J. DITTERICH*. *Univ. of California.*

3:00 JJJ27 **286.07** Dynamic calibration of the influence of priors and sensory input for perceptual estimation. K. KRISHNAMURTHY; M. NASSAR; S. SARODE; J. CHEN; J. I. GOLD*. *Univ. Pennsylvania.*

4:00 JJJ28 **286.08** A rational analysis of sequential effects in perceptual decision-making: Fluctuations in RT and accuracy driven by prior bias due to recent trial history. S. ZHANG*; A. J. YU. *UCSD, Univ. of California San Diego.*

1:00 JJJ29 **286.09** Brain activity during perceptual decision-making in the visual domain. B. LAMICHHANE*; B. ADHIKARI; M. DHALAMA. *Georgia State Univ., Neurosci. Institute, Georgia State Univ.*

2:00 JJJ30 **286.10** Distortion of perceptual beliefs by categorical decisions in the human brain. V. WYART*; P. DOMENECH; J. DRUGOWITSCH; E. KOECHLIN. *Ecole Normale Superieure.*

3:00 JJJ31 **286.11** Decision-making is influenced by a context-dependent urgency signal. M. CARLAND*; E. MARCOS; D. THURA; P. VERSCHURE; P. CISEK. *Univ. De Montréal, Univ. Pompeu Fabra.*

4:00 JJJ32 **286.12** Human learning and decision-making in a bandit setting exhibits forgetful Bayes and myopic planning. A. J. YU*; S. ZHANG. *Univeresity of California San Diego.*

1:00 JJJ33 **286.13** Pre-stimulus alpha power biases perceptual decisions and confidences. J. LANGE*; T. BAUMGARTEN; A. SCHNITZLER. *Inst. of Clin. Neurosci. & Med. Psychology.*

2:00 JJJ34 **286.14** Practice in perceptual decision making produces structural changes in white and grey matter. W. BOEKEL*; E. WAGENMAKERS; D. VAN RAVENZWAAIJ; B. U. FORSTMANN. *Univ. of Amsterdam, Univ. of New South Wales.*

3:00 JJJ35 **286.15** The impact of motion stimulus variability on the temporal dynamics of a target selection task. E. LAM*; J. F. KALASKA. *Univ. De Montreal.*

4:00 JJJ36 **286.16** ● Modeling of subject independent and dependent cognitive biases in a resource allocation task. S. E. GOLDFARB; S. E. CHELIAN; J. D. COHEN; R. BHATTACHARYYA*. *HRL Laboratories, LLC, Princeton Univ.*

1:00 JJJ37 **286.17** Optimal repeated change detection and value-based approximation. T. TSUCHIDA*; A. J. YU. *UC San Diego, UC San Diego.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 JJJ38 **286.18** High gamma duration in human prefrontal cortex predicts categorical decision time. M. HALLER*; J. DEVRIES; N. J. HANSON; N. E. CRONE; E. F. CHANG; J. PARVIZI; R. T. KNIGHT; A. Y. SHESTYUK. *Univ. of California, Berkeley, Univ. of California, Berkeley, The Johns Hopkins Univ. Sch. of Med., Univ. of California, San Francisco, Stanford Sch. of Med.*

3:00 JJJ39 **286.19** The encoding of higher-order reward prediction errors during decision making. R. GUO*; M. HEBART; K. OBERMAYER. *TU Berlin, Bernstein Ctr. for Computat. Neurosci. Berlin, Univ. Med. Ctr. Hamburg-Eppendorf.*

4:00 JJJ40 **286.20** Distinguishing conceptual from motor decisions. J. V. SCHWARZBACH*; A. CARAMAZZA. *Ctr. For Mind/Brain Sci., Harvard Univerity.*

1:00 JJJ41 **286.21** Dissecting different types of decision-making: An ERP study of reasoned vs. unreasoned voluntary decisions. L. MUDRIK*; U. MAOZ; D. XU; C. DUNCAN; Q. ZHANG; C. KOCH. *Caltech, Natl. Univ. of Singapore, Allan Inst. for Brain Sci.*

2:00 JJJ42 **286.22** A distributed functional network underlying strategic decision-making. A. C. PARR*; B. C. COE; D. P. MUNOZ; M. C. DORRIS. *Queen's Univ., Shanghai Inst. for Biol. Sciences, Chinese Acad. of Sci.*

3:00 JJJ43 **286.23** Hierarchical decision-making in humans: An fmri study. W. YOSHIDA*. *ATR.*

POSTER

287. Cognition, Learning, and Memory: Neuropharmacology

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ44 **287.01** Comparing restoration of novel object recognition (NOR) in mice sub-chronically (sc) treated with NMDA receptor non-competitive antagonists phencyclidine (PCP), dizocilpine (MK-801), or ketamine, with rats treated with PCP: Effect of 5-HT_{1A} partial (PA) agonism and $GABA_A$ receptor stimulation. L. RAJAGOPAL*; Y. OYAMADA; M. HUANG; H. Y. MELTZER. *Northwestern Univ. Feinberg Sch. of Med., Dainippon Sumitomo Pharma Co., Ltd.,.*

2:00 JJJ45 **287.02** Scopolamine alters encoding but not retrieval on the E-maze version of the what/where/which task. A. JOHNSON*; C. STANCHFIELD. *Bethel Univ., Bethel Univ.*

3:00 JJJ46 **287.03** Hippocampal activation of estradiol receptors α and β restores memory deficit caused by chronic estrogen deprivation. C. P. BASTOS*; L. M. PEREIRA; G. S. PEREIRA. *Federal Univ. of Minas Gerais.*

4:00 JJJ47 **287.04** Methylphenidate acts within the prefrontal cortex to enhance memory storage. S. LIU*; F. YI; B. LI; X. ZHANG. *Fudan Univ., Nanchang Univ.*

1:00 JJJ48 **287.05** **Withdrawn.**

2:00 JJJ49 **287.06** Relationship of cortical dopamine, acetylcholine, serotonin, glutamate, and GABA to restoration of novel object recognition by antipsychotic and specific receptor agonists or antagonists. M. HUANG*; J. J. PANOS; S. KWON; Y. OYAMADA; L. RAJAGOPAL; H. Y. MELTZER. *Northwestern Univ. Feinberg Sch. of Med., Dainippon Sumitomo Pharma Co., Ltd.*

3:00 JJJ50 **287.07** Estradiol enhances object memory through estrogen receptor α, but not β, activation in the hippocampus of female mice. L. M. PEREIRA*; C. P. BASTOS; G. S. PEREIRA. *Federal Univ. of Minas Gerais.*

4:00 JJJ51 **287.08** Role of cannabinoid system in hippocampal memory. D. FETTERHOFF; A. J. SWEATT*; W. D. JOHNSTON; C. A. SEXTON; R. E. HAMPSON; S. A. DEADWYLER. *Wake Forest Sch. of Med.*

1:00 JJJ52 **287.09** ● Improved neuritogenesis and mitochondrial dynamics by levetiracetam might explain cognitive improvement in brain aging and animal models of Alzheimer's disease. W. E. MUELLER*; D. VIANO; C. SCHILLER; K. LEUNER. *Univ. Frankfurt, goethe university frankfurt., university erlangen.*

2:00 JJJ53 **287.10** ● TPA023, a $GABA(_A)$ α2,3 subtype-selective partial agonist, enhances the efficacy of lurasidone to reverse the sub-chronic phencyclidine (PCP)-induced impairment in novel object recognition (NOR). Y. OYAMADA*; L. RAJAGOPAL; M. HUANG; H. Y. MELTZER. *Northwestern Univ., Dainippon Sumitomo Pharma Co., Ltd.,.*

3:00 JJJ54 **287.11** Involvement of GSK3β/β-catenin signaling in the impairment effect of ketamine on memory. X. LIU*; H. LIU; K. WANG; G. XU; J. CAO; Y. LI. *The First Affiliated Hosp. of Anhui Med. Univ., The First Affiliated Hosp. of Anhui Med. Univ., Xuzhou Med. Col.*

4:00 JJJ55 **287.12** Oleanolic acid attenuates scopolamine-induced memory impairment in mice. Y. LEE; S. PARK; H. LEE; Y. AHN; G. KWON; H. WOO; Q. GAO; J. RYU*. *Kyung Hee Univ., Kyung Hee Univ.*

1:00 JJJ56 **287.13** Distinct cortical connectivity pattern of the anterior and posterior mediodorsal thalamic nucleus in mice. J. LEE*; F. MÁTYÁS; L. ACSÁDY; H. SHIN. *Inst. For Basic Sci., Inst. of Exptl. Med. of the Hungarian Acad. of Sci.*

2:00 JJJ57 **287.14** Naringin ameliorates okadaic acid induced cognitive dysfunction and apoptotic neurodegeneration in the rat brain. A. K. SACHDEVA*; K. CHOPRA. *UIPS, PANJAB UNIVERSITY.*

3:00 JJJ58 **287.15** The precision of contextual familiarity memory is attenuated in remote retrieval. J. PARK*; H. SHIN. *IBS.*

4:00 JJJ59 **287.16** Mechanism of the schizophrenia-related cognitive control impairment induced by phencyclidine. H. KAO*; E. PARK; B. RADWAN; M. T. VAN DIJK; E. WALLACE; M. J. TROY-REGIER; J. ZHONG; J. M. ALARCON; A. A. FENTON. *New York Univ., New York Univ., State Univ. of New York at Downstate Med. Ctr., State Univ. of New York at Downstate Med. Ctr., State Univ. of New York at Downstate Med. Ctr.*

1:00 JJJ60 **287.17** Activity of extrasynaptic gabaa receptors in mediodorsal nucleus of thalamus modulates fear extinction learning. A. PAYDAR*; S. LEE; B. LEE; G. GANGADHARAN; H. SHIN. *Inst. For Basic Sci.*

2:00 JJJ61 **287.18** Cav3.1 T-type Ca^{2+} channels controls hippocampal theta oscillations and novelty behavior in mice. G. GANGADHARAN*; J. SHIN; S. KIM; A. KIM; D. KIM; A. PAYDAR; M. WATANABE; Y. YANAGAWA; Y. KIM; D. KIM; H. SHIN. *Inst. for Basic Sci. (IBS), Dept. of Psychiatry and Biobehavioral Sci., Col. of Medicine, Soonchunhyang Univ., Hokkaido Univ. Sch. of Med., Gunma Univ. Grad. Sch. of Med., Inje Univ., Korea Advanced Inst. of Sci. and Technol.*

3:00 JJJ62 **287.19** Drug injectable carbon-nanotube nanoelectrodes. J. SHIN*; G. KIM; I. KIM; T. AN; H. SHIN; G. LIM. *POSTECH, Inst. for Basic Sci. (IBS), Andong Natl. Univ., Inst. for Basic Sci. (IBS), Univ. of Sci. & Technol. (UST), Pohang Univ. of Sci. and Technol., Pohang Univ. of Sci. and Technol. (POSTECH).*

4:00 JJJ63 **287.20** CE-245677-induced cognitive deficits: A translational story implicating inhibition of trkb-mediated pathways. A. N. FOOTE*; C. HSU; A. MEAD; R. NEWMAN; K. CANNON. *Pfizer, Inc, Pfizer, Inc.*

* Indicated a real or perceived conflict of interest, see page 144 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 JJJ64 **287.21** The role of striatal cholinergic transmission in cognition: Assessment of mice deficient for the vesicular acetylcholine transporter (VAChT) in the striatum. D. R. PALMER*; K. GAHNSMITH; R. COURTNEY; I. PLUMB; B. BULOSAN; E. BINSELL; A. VAN MAANEN; S. CREIGHTON; V. F. PRADO; M. M. PRADO; E. CHOLERIS; B. D. WINTERS. *Univ. of Guelph, Univ. of Guelph, Western Univ., Univ. of Guelph.*

2:00 JJJ65 **287.22** Genetic analysis of the roles of NMDA receptors in the parafascicular nucleus in sensory processing. K. YASUDA*; Y. HAYASHI; M. TANAKA; S. ITOHARA. *RIKEN Brain Sci. Inst., Grad. Sch. of Agr. and Life Sci.*

3:00 JJJ66 **287.23** Microinfusions of estradiol to the medial prefrontal cortex bias adult female rats towards use of a place learning memory system. A. ALMEY*; K. BERTRAM; E. CANNELL; W. G. BRAKE. *Concordia Univ.*

4:00 JJJ67 **287.24** Role of Dopamine in observational learning in rats. M. A. MAHMOUD*; A. GHESTEM; P. CARLIER; M. MOFTAH; D. BOUSSAOUD. *Inst. De Neurosciences Des Systèmes UMR INSERM 1106, Zoology Department, faculty of science, Alexandria univeristy.*

1:00 JJJ68 **287.25** Prevention of chronic traumatic encephalopathy (CTE) by the glutamate receptor antagonist NitroMemantine in a mouse model of mild TBI. J. SPIESS*; C. WEISS; P. H. RIGBY; E. MASLIAH; A. M. WYRWICZ; J. F. DISTERHOFT; S. A. LIPTON. *Sanford | Burnham Med. Res.Inst., Max Planck Inst. for Exptl. Med., Feinberg Sch. of Medicine, Northwestern Univ., L 3 Communications, UCSD, Univ. of Chicago.*

POSTER

288. Prefrontal and Striatal Systems: Anatomy and Function

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ69 **288.01** Effects of nicotine exposure termination and subsequent nicotine administration on responding for delayed rewards. K. YONEZAKI*; J. R. FADEL; J. A. BURK. *Hokkaido Univ., Univ. of South Carolina Sch. of Med., Col. of William & Mary.*

2:00 JJJ70 **288.02** Loss of medial prefrontal cortical cholinergic projections increases preference for an immediately available reward in a delay discounting task. J. A. BURK*; K. YONEZAKI. *Col. of William & Mary, Hokkaido Univ.*

3:00 KKK1 **288.03** ▲ Analysis of the use of positive and negative feedback after methamphetamine. A. STOLYAROVA*; D. RODRIGUEZ; A. IZQUIERDO. *California State Univ, Los Angeles.*

4:00 KKK2 **288.04** Discrimination reversal learning and self-administration in adulthood following adolescent methamphetamine exposure. T. YE*; H. POZOS; T. J. PHILLIPS; A. IZQUIERDO. *California State University, Los Angeles, Oregon Hlth. & Sci. Univ.*

1:00 KKK3 **288.05** Effects of a D2R antagonist on changes in cross-frequency power coupling related to the trade-off between attention demanding and automatic processes in frontal-striatal circuits. E. LEE*; M. SEO; O. DAL MONTE; B. B. AVERBECK. *Unit on Learning and Decision Making, Lab. of Neuropsychology, NIMH, NIH, UCL, Inst. of Neurobio.*

2:00 KKK4 **288.06** Increased impulsive action after a history of chronic alcohol intake and abstinence. C. IRIMIA*; I. Y. POLIS; L. H. PARSONS. *The Scripps Res. Inst.*

3:00 KKK5 **288.07** ▲ Adolescent behavior and nac neuronal recording following methylphenidate (0.6, 2.5, 5.0, 10.0 mg/kg i.p.). A. FROLOV; C. REYES-VAZQUEZ*; N. DAFNY. *Univ. of Texas at Houston, Depto. De Fisiología.*

4:00 KKK6 **288.08** Etanol,exposure in binge episodes during adolescence change the bdnf levels, attention and aggressive behavior in adults wistar rats. R. M. DE ALMEIDA*; L. BIZARRO; L. SCHEIDT; A. PIRES; J. PASSOS; L. STERTZ; G. FRIES; F. KAPCZINSKI; K. MICZEK. *UFRGS, HCPA, TUFTS Univ.*

1:00 KKK7 **288.09** The contribution of nicotinic acetylcholine receptors to learned inhibition. R. B. PUTNEY; D. J. BUCCI*. *Dartmouth Col.*

2:00 KKK8 **288.10** Nicotinic α4β2 receptor stimulation strengthens working memory-related neuronal activity in prefrontal cortex. Y. YANG; L. E. JIN; A. F. T. ARNSTEN; M. WANG*. *Yale university, Yale Univ. Sch. of Med.*

3:00 KKK9 **288.11** ● Investigating the role of striatal dopamine signalling during performance of a visual discrimination reversal task. N. K. HORST*; T. W. ROBBINS; A. C. ROBERTS. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Cambridge.*

4:00 KKK10 **288.12** Regional differences in amphetamine-induced dopamine release in non-human primates. H. P. JEDEMA*; R. NARENDRAN; C. W. BRADBERRY. *Univ. Pittsburgh, Univ. Pittsburgh Med. Ctr., Univ. of Pittsburgh, VA Pittsburgh Hlth. Services.*

1:00 KKK11 **288.13** Neural control of feeding: Optogenetic and pharmacological studies on the medial frontal cortex and ventral striatum. M. A. PARENT*; M. LAUBACH. *The John B. Pierce Lab., John B. Pierce Labs.*

2:00 KKK12 **288.14** Concomitant apomorphine and cholecystokinin supress apomorphine tolerance induction. C. A. TIEPPO*; H. R. SILVA; C. LOPES. *Santa Casa Med. Sci. Sch. of São Paulo, Physiological Sci. Dept., Santa Casa of Sao Paulo Med. Sci. School, Sao Paulo - Brazil.*

3:00 KKK13 **288.15** 5-HT2AR antagonism and 5-HT2CR stimulation attenuates hyperlocomotion produced by intra-striatal cocaine infusions. T. DER-GHAZARIAN*; L. POCKROS; R. MIRANDO; S. BRUNWASSER; N. PENTKOWSKI; J. NEISEWANDER. *Arizona State Univ.*

4:00 KKK14 **288.16** Receptor and frontostriatal circuit mechanisms underlying the cognition-enhancing actions of psychostimulants. R. C. SPENCER*; C. W. BERRIDGE. *Univ. of Wisconsin.*

1:00 KKK15 **288.17** Dopamine depletion in the dorsolateral striatum impairs the acquisition of an egocentric task but not spatial reversal or strategy switch. J. J. YOUNG*; K. SEIP-CAMMACK; M. L. SHAPIRO. *Icahn Sch. of Med. At Mount Sinai.*

2:00 KKK16 **288.18** Presynaptic mitochondrial morphology in the dorsolateral prefrontal cortex correlates with working memory and is improved with estradiol treatment in rhesus monkeys. Y. HARA*; F. YUK; R. PURI; W. G. M. JANSSEN; P. R. RAPP; J. H. MORRISON. *Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Natl. Inst. on Aging, Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

3:00 KKK17 **288.19** Regional-, laminar-, and target-specificity of prefrontal cortical pyramidal cell dendritic spine loss in response to dopamine denervation. H. WANG; A. Y. DEUTCH*. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr.*

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4:00 KKK18 **288.20** Claustrum projections to the prefrontal cortex of the common marmoset: New insights regarding claustrum function? D. H. RESER*; J. CHAN; K. BURMAN; K. WORTHY; X. PHAM; T. CHAPLIN; M. G. P. ROSA. *Monash Univ., Monash Univ.*

1:00 KKK19 **288.21** ● Enhanced c-fos immunoreactivity in the prefrontal cortex of male rats following pre- and postnatal stress exposure. E. ULUPINAR*; E. SOZTUTAR; E. COLAK. *Eskisehir Osmangazi Univ., ESOGU Hlth. Sci. Inst., Eskisehir Osmangazi Univ.*

2:00 KKK20 **288.22** Anatomical characterization of long-range thalamic projections in mouse. B. J. HUNNICUTT*; B. LONG; D. KUSEFOGLU; H. ZHONG; K. SVOBODA; T. MAO. *Oregon Hlth. & Sci. Univ., Vollum Inst., Janelia Farm Res. Campus.*

POSTER

289. Accumbens I

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK21 **289.01** Enhanced D2-type receptor activity in the nucleus accumbens shell facilitates conditioned same-sex socio-sexual motivation in male rats: Behavioral and cellular evidence. R. TRIANA-DEL RIO*; J. MORIN; C. LOZANO-FLORES; V. RAMÍREZ-AMAYA; G. CORIA-AVILA; R. PAREDES-GUERRERO. *Inst. De Neuroetología, Ctr. de Investigaciones Cerebrales, Inst. de Neurobiología. Univ. Nacional Autónoma de México.*

2:00 KKK22 **289.02** Long-withdrawal from repeated nicotine did not change NPY and CRH-R1 gene expression in the amigdala. C. S. PLANETA*; T. F. GOTTSFRITZ; P. BIANCHI. *Unesp - Sch. Pharmaceut. Sci., Joint Grad. Program in Physiological Sciences, UFSCar/UNESP,.*

3:00 KKK23 **289.03** The weight-loss drug diethylpropion increases LFP's delta power and inhibits neuronal activity of the nucleus accumbens. K. BALASUBRAMANIAN*, JR; J. SOLORIO; A. VARGAS; A. LUNA; M. MORENO; I. PEREZ; R. GUTIERREZ. *CINVESTAV-IPN, DEPARTMENT OF PHARMACOLOGY, IPN, CINVESTAV-IPN.*

4:00 KKK24 **289.04** The peripheral satiety signal induced by cholecystokinin modulates the activity of single neurons of the nucleus accumbens shell. C. PEREZ DIAZ*, JR; M. MORENO; R. GUTIERREZ. *CINVESTAV.*

1:00 KKK25 **289.05** In the Thy1-ChR2 mice, optogenetic activation of nucleus accumbens' inputs is sufficient to stops feeding behavior. L. E. PRADO RODRÍGUEZ*; R. GUTIERREZ. *CINVESTAV I.P.N.*

2:00 KKK26 **289.06** Different populations of nucleus accumbens neurons are associated with approach behavior and reward. C. J. BROKER*; D. WANG; S. IKEMOTO. *The Natl. Inst. On Drug Abuse.*

3:00 KKK27 **289.07** Neural activity of nucleus accumbens induced by rewarding optogenetic stimulation of VTA dopamine neurons. D. V. WANG*; C. BROKER; S. IKEMOTO. *Natl. Inst. On Drug Abuse.*

4:00 KKK28 **289.08** ▲ Rapid fluctuations in nucleus accumbens glutamate levels during motivated glucose drinking behavior. S. E. MYAL*; K. T. WAKABAYASHI; E. A. KIYATKIN. *BNRB, NIDA IRP, NIH.*

1:00 KKK29 **289.09** The rewarding and aversive effects of nicotine are encoded by differential neuronal population activity dynamics in the nucleus accumbens shell. S. R. LAVIOLETTE*; N. Sun. *Univ. of Western Ontario.*

2:00 KKK30 **289.10** Chronic testosterone treatment can cause neuroplasticities in the nucleus accumbens of adolescent rats. S. A. ENGI*; C. C. CRESTANI*; C. S. PLANETA. *UNESP ARARAQUARA, UNESP ARARAQUARA.*

3:00 KKK31 **289.11** Blockade of AMPA receptors in the nucleus accumbens core interferes with the expression of Pavlovian conditioned approach. M. VEGA VILLAR*; R. I. CAAMAÑO TUBÍO; J. C. HORVITZ. *The Grad. Center, CUNY, City Col. of New York, CUNY.*

POSTER

290. Ethanol

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK32 **290.01** Electrophysiological responses within the prefrontal cortex to cue-induced binge ethanol intake. D. N. LINSENBARDT*; C. C. LAPISH. *IUPUI.*

2:00 KKK33 **290.02** ● Adolescent intermittent ethanol exposure increased risk taking and decreased dopaminergic and cholinergic activity in adulthood. N. BOUTROS*; S. SEMENOVA; W. LIU; F. T. CREWS; A. MARKOU. *UCSD Dept. of Psychiatry, Univ. of North Carolina at Chapel Hill.*

3:00 KKK34 **290.03** Ganaxolone reinstates ethanol seeking in an operant procedure in mice. M. RAMAKER*; M. M. FORD; D. A. FINN. *Oregon Hlth. and Sci. Univ.*

4:00 KKK35 **290.04** Ethanol concentration-dependent effects of binge drinking in the presence of HIV-1 infection. S. SARKAR; S. L. CHANG*. *Seton Hall Univ., Seton Hall Univ.*

1:00 KKK36 **290.05** **Withdrawn.** .

2:00 KKK37 **290.06** Imaging of temporal activation of nicotinic and dopaminergic receptor stimulation following nicotine challenge in non-human primates. C. MARTINEZ-RUBIO*; B. K. JENKINS; J. CHOI; S. R. PATEL; E. N. ESKANDAR. *Clarissa Martinez-Rubio, Massachusetts Gen. Hosp., Martinos Ctr. for Biomed. imaging.*

3:00 KKK38 **290.07** Strain-dependent performance in nicotine-induced conditioned place preference and striatal pCREB expression. L. A. ORTEGA MURILLO*; E. YILDIRIM; M. ADOFF; R. POOLE; T. GOULD. *Univ. Autonoma de Bucaramanga, Temple Univ.*

POSTER

291. Neural Mechanisms for Reward-Based Decisions

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK39 **291.01** Effects of orbitofrontal inactivation on dopamine cell activity during a delay-based decision task. Y. S. JO; W. FOBBS*; S. J. Y. MIZUMORI. *UW Psychology Dept.*

2:00 KKK40 **291.02** Reward-sensitive neural responses in the periaqueductal gray during a spatial working memory task. V. L. TRYON*; E. FORMAN; S. J. Y. MIZUMORI. *Univ. of Washington.*

3:00 KKK41 **291.03** Separate groups of dopamine neurons project to caudate head and tail. H. F. KIM*; A. GHAZIZADEH; K. S. SALEEM; M. K. SMITH; O. HIKOSAKA. *NIH, NEI, LSR, NIH, NIMH.*

4:00 KKK42 **291.04** Ventrolateral prefrontal cortical neurons encode the stable value and novelty of visual objects. A. GHAZIZADEH*; S. HONG; O. HIKOSAKA. *LSR NIH, McGovern Inst. for Brain Res. MIT.*

● Indicated a real or perceived conflict of interest, see page 144 for details.

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1:00 KKK43 **291.05** Functional territories in the primate substantia nigra separately signaling flexible and stable values. M. YASUDA*; O. HIKOSAKA. *Natl. Eye Inst.*

2:00 KKK44 **291.06** Negative feedback monitoring by lateral habenula and anterior cingulate cortex in monkey during a reversal learning task. T. KAWAI*; N. SATO; M. TAKADA; M. MATSUMOTO. *Primate Res. Institute, Kyoto Univ., Kwansei Gakuin Univ., Univ. of Tsukuba, JPSP Res. Fellow, Univ. of Tsukuba.*

3:00 KKK45 **291.07** Co-release of glutamate and GABA in the lateral habenula. S. SHABEL*; C. D. PROULX; R. MALINOW. *UCSD.*

4:00 KKK46 **291.08** Effects of reward size and reward delay on ventral striatal tonically active neurons in monkeys engaged in an intertemporal choice task. D. WEINTRAUB*; J. WITTIG, Jr.; B. RICHMOND. *NIH, Natl. Inst. of Mental Hlth.*

1:00 KKK47 **291.09** Subthalamic and pallidal neurons represent reward-related signals in a multistep task in a monkey. H. IWAMURO*; I. TRIGO DAMAS; J. A. OBESO. *Neurosciences Division, Fima-ed.Cima, Univ. of Navarra.*

2:00 KKK48 **291.10** Modulation of responses to the conditioned and unconditioned stimuli in the primate lateral hypothalamic area by an aversive option in Pavlovian conditioning. A. NORITAKE*; K. NAKAMURA. *Kansai Med. Univ.*

3:00 KKK49 **291.11** Deciding to take action: Striatum activation during reaching to targets of varying reward value. E. A. POHLMEYER*; S. GENG; N. W. PRINS; J. C. SANCHEZ. *Univ. of Miami.*

4:00 KKK50 **291.12** A single spiking neuronal model to account for the diverse spontaneous firing patterns of lateral habenula neurons. A. LAVIALE*; T. WEISS; R. W. VEH; M. T. MCGINNITY; L. MAGUIRE; K. WONG-LIN. *ISRC, Charité-Universitätsmedizin Berlin, Charité-Universitätsmedizin Berlin, Phil, Univ. of Ulster.*

1:00 KKK51 **291.13** Neural activity in primate striatum and amygdala during novelty seeking. V. D. COSTA*; V. L. TRAN; B. B. AVERBECK. *NIMH/NIH.*

2:00 KKK52 **291.14** Encoding of reward-predictive cues in the ventral pallidum. S. LARDEUX*; S. M. NICOLA. *Albert Einstein Col. of Med.*

POSTER

292. Neural Mechanisms: Processing Uncertainty and Risk

Theme F: Cognition and Behavior

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK53 **292.01** Activity of basolateral amygdala neurons during risky foraging decisions. A. AMIR*; S. LEE; M. M. HERZALLAH; D. PARE. *Rutgers Univ. - Newark.*

2:00 KKK54 **292.02** Multiple neural circuits predict different types of financial risk taking. C. C. WU*; K. KATOVICH; B. KNUTSON. *Stanford Univ.*

3:00 KKK55 **292.03** ▲ Environmental enrichment affects novel object and location preference in adolescent rats. D. E. COBB*; R. E. EICHORST; D. C. KELLER; A. M. DOYLE; M. C. ZRULL. *Appalachian State Univ., Appalachian State Univ., Appalachian State Univ.*

4:00 KKK56 **292.04** Structural integrity of cortico-striatal white matter tracts and risk-taking correlates in adolescents. D. GOLDENBERG*; E. H. TELZER; A. J. FULIGNI; A. GALVAN. *UCLA, Univ. of Illinois at Urbana-Champaign.*

1:00 KKK57 **292.05** Disadvantageous decision-making is related to increased motor impulsivity on a rodent gambling task. M. M. BARRUS*; J. G. HOSKING; F. D. ZEEB; M. TREMBLAY; L. COQUE; C. A. WINSTANLEY. *Univ. of British Columbia, Ctr. for Addiction and Mental Hlth.*

2:00 KKK58 **292.06** The interaction of reward sensitivity and executive function predicts substance use and neural signature of risk processing in adolescents. N. LAUHARATANAHIRUN*; J. KIM-SPOON; J. WALTERS; J. FARLEY; K. DEATER-DECKARD; W. K. BICKEL; P. CHIU; B. KING-CASAS. *Virginia Carilion Res. Inst., Virginia Tech, Dept. of Psychology, Salem VA Med. Ctr.*

3:00 KKK59 **292.07** Voluntary alcohol intake, specifically during adolescence, produces arrested behavioral development resulting in enduring maladaptive and suboptimal risk preference in adulthood. A. G. SCHINDLER*; H. H. TONG; S. WARLOW; H. GILL; J. J. CLARK. *Univ. of Washington.*

4:00 KKK60 **292.08** Risk-taking, fear and anxiety in Balb/c, C57BL/6J and CD-1 mice tested singly or in pairs. A. ENNACEUR*; R. M. ABUHAMDAH; P. L. CHAZOT. *Univ. of Sunderland, Univ. of Durham.*

1:00 KKK61 **292.09** Effects of the chronic D2/3 agonist ropinirole medication on rodent models of gambling-related decision-making. C. A. WINSTANLEY*; M. TREMBLAY; J. G. HOSKING. *Univ. British Columbia.*

2:00 KKK62 **292.10** A home-cage operant paradigm for studying behavioral inhibition in the mouse. R. P. FAUST*; J. HINKLE; X. ZHUANG; J. A. BEELER. *Univ. of Chicago.*

3:00 KKK63 **292.11** A rapid method for evaluating risky decision-making in the rat using intracranial self-stimulation. N. HOLTZ*; S. TEDFORD; T. NAPIER. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.*

4:00 KKK64 **292.12** Distinct types of uncertainty encoding in the primate septum. I. E. MONOSOV*; O. HIKOSAKA. *NEI/NIH, Natl. Eye Inst.*

1:00 KKK65 **292.13** Financial risk attitude in Parkinson's disease patients. S. KOBAYASHI*; N. MATSUDA; Y. AKUTSU; Y. UGAWA. *Fukushima Med. Univ., Takeda Gen. Hosp.*

2:00 KKK66 **292.14** ● The dual orexin receptor antagonist almorexant decreases motor impulsivity in highly impulsive rats performing a rat Gambling Task. L. F. COQUE*; C. A. WINSTANLEY; M. A. STEINER. *Univ. of British Columbia, Actelion.*

3:00 KKK67 **292.15** Unpredictable chronic mild stress in adolescent rats causes hyperactivity, decreased anxiety, and risk-seeking tendencies. E. K. KIRSCHMANN*; E. C. DONNY; A. F. SVED; E. THIELS. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

4:00 KKK68 **292.16** Role of nucleus accumbens in the modulation of individual risk attitudes. C. G. SINON; M. S. MCMURRAY; J. D. ROITMAN*. *Univ. of Illinois at Chicago, Univ. of Illinois at Chicago.*

1:00 KKK69 **292.17** Cholinergic modulation of decision making on the rat gambling task. M. SILVEIRA*; C. A. WINSTANLEY; M. SHOAIB. *Univ. OF British Columbia, Newcastle Univ.*

2:00 KKK70 **292.18** Dopaminergic and serotonergic modulation of loss aversion in a rat gambling paradigm. W. K. ADAMS*; P. J. COCKER; R. D. ROGERS; C. A. WINSTANLEY. *Univ. of British Columbia, Univ. of British Columbia, Univ. of Oxford.*

3:00 LLL1 **292.19** Contributions of tonically active neurons and uncertainty to striatal learning. N. T. FRANKLIN*; M. J. FRANK. *Brown Univ.*

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4:00 LLL2 **292.20** The insula cortex does not mediate reward expectancy in a rodent model of slot machine play. P. J. COCKER*; J. G. HOSKING; R. D. ROGERS; B. LE FOLL; C. A. WINSTANLEY. *Univ. of British Columbia, Univ. of Oxford, Univ. of Toronto.*

POSTER

293. Computation, Modeling, and Simulation IV

Theme G: Novel Methods and Technology Development

Sun. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LLL3 **293.01** Evidence of motor skill specialization in wrist motion of skilled clinicians. E. WADE*; C. ZEISLER; J. CHEN; S. GHANIMANTI; J. WEI; C. TEMPLEMAN. *USC, USC.*

2:00 LLL4 **293.02** Influences of Ia feedback on low-frequency fluctuations of plantar flexion torque. R. N. WATANABE*; L. A. ELIAS; A. F. KOHN. *Univ. of São Paulo.*

3:00 LLL5 **293.03** A computational model of the kinematics of three-dimensional head-free gaze shifts. M. DAEMI*; D. CRAWFORD. *Ctr. For Vision Res., York Univ.*

4:00 LLL6 **293.04** A scalable analysis of network fluctuations and its application in magnetoencephalography. M. Y. MAHAN; A. C. LEUTHOLD*; A. P. GEORGOPOULOS. *Univ. of Minnesota, Univ. Minnesota, Univ. Minnesota.*

1:00 LLL7 **293.05** EEG functional networks in motor processing during visual stimuli. D. E. FRAIMAN*; G. SAUNIER; T. LEMOS; E. MARTINS; C. VARGAS. *Univ. San Andres, CONICET, Univ. Federal do Pará, Univ. Federal de Rio de Janeiro.*

2:00 LLL8 **293.06** A bio-inspired CPG model for hierarchical control of limbless locomotion. J. ZHANG*; G. LI. *Univ. of Hamburg.*

3:00 LLL9 **293.07** Large-scale neuromusculoskeletal model used to investigate neurophysiological mechanisms behind upright stance control. L. A. ELIAS*; R. N. WATANABE; A. F. KOHN. *Univ. of Sao Paulo.*

4:00 LLL10 **293.08** Modified motor unit number index: A simulation study. P. ZHOU*; X. LI; W. RYMER; S. NANDEDKAR. *Rehabil. Inst. of Chicago, Univ. of Sci. and Technol. of China, Natus Med. Inc.*

• Indicated a real or perceived conflict of interest, see page 144 for details.

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Conflict of Interest Statements

The following presenters, signified by a dot (•) in the program, indicated a real or perceived conflict of interest.

Presenters listed without a dot in the program had no financial relationships to disclose.

ABSTRACT NUMBER	STATEMENT
108	**H.S. Mayberg:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Research Devices (DBS leads, IPGs): St Jude Medical/Neuromodulation, Inc. F. Consulting Fees (e.g., advisory boards); St. Jude Medical/Neuromodulation, Inc. Other; Licensing of IP to St Jude Medical/Neuromodulation, Inc.; B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; H.S. Mayberg, Woodruff Fund, Stanley Medical Research Institute, Dana Foundation R; St. Jude Medical, Inc. O; St. Jude Medical, Inc. O; St. Jude Medical, Inc. C.
108.05	**C.C. McIntyre:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; .C. McIntyre, Boston Scientific Neuromodulation C.
112	**A.A. Grace:** A. Employment/Salary (full or part-time):; Full. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Lilly. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lundbeck. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); Honoraria: Pfizer, Lilly, Otsuka. F. Consulting Fees (e.g., advisory boards); Pfizer, Johnson & Johnson, Merck, Takeda, Otsuka, Lilly, Roche, Asubio, Dainippon Sumitomo.
114.04	**S.M. Catalano:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **N.J. Izzo:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **C. Rehak:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **R. Yurko:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. **K. Mozzoni:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **C. Silky:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **G. Look:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **G. Rishton:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **H. Safferstein:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics.
114.07	**D.M. Wilcock:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Baxter Biosciences.
115.04	**A. Capela:** A. Employment/Salary (full or part-time):; Stem Cells Inc. **M. Blurton-Jones:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); HuCNS-SC provided by Stem Cells Inc.
115.07	**D.B. Michael:** A. Employment/Salary (full or part-time):; William Beaumont Hospital. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Michigan Head & Spine Institute.
116.04	**W.L. Klein:** Other; Acumen Pharmaceuticals.
116.09	**H. Cynis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Probiodrug AG, Halle/Saale, Germany.

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117.01	**R.A. Semechkin:** A. Employment/Salary (full or part-time):; International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. **R. Gonzalez:** A. Employment/Salary (full or part-time):; International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. **I. Garitaonandia:** A. Employment/Salary (full or part-time):; International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. **A. Ostrowska:** A. Employment/Salary (full or part-time):; International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. **T. Abramihina:** A. Employment/Salary (full or part-time):; International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. **G.K. Wambua:** A. Employment/Salary (full or part-time):; International Stem Cell Corporation. **A. Noskov:** A. Employment/Salary (full or part-time):; International Stem Cell Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); International Stem Cell Corporation. **M. Poustovoitov:** A. Employment/Salary (full or part-time):; International Stem Cell Corporation. **D. Redmond, Jr:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; International Stem Cell Corporation.
117.02	**S. Sardi:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **J. Clarke:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **C. Viel:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **M. Chan:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **C. Treleaven:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **J. Bu:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **L. Sweet:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **M. Passini:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **J. Dodge:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **S. Cheng:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **L.S. Shihabuddin:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company.
124.06	**M. Mohajeri:** A. Employment/Salary (full or part-time):; DSM Nutritional Products. **J. Wittwer:** A. Employment/Salary (full or part-time):; DSM Nutritional Products. **R. Goralczyk:** A. Employment/Salary (full or part-time):; DSM Nutritional Products.
124.10	**C. Stough:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Soho Flordis International, Horphag, Blackmores, Australian Research Council. **K. Wesnes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Director of CDR.
126.03	**S. Yamagishi:** A. Employment/Salary (full or part-time):; full. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; JSPS KAKENHI Grant Numbers 23700412 and 25122707.
127.21	**N.P. Biscola:** A. Employment/Salary (full or part-time):; State of São Paulo Research Foundation (FAPESP) process number 2011/23377-7.
128.14	**O. Mors:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Vested interest in BRD1. **A.D. Børglum:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Vested interest in BRD1.
129.14	**D.J. Lodge:** F. Consulting Fees (e.g., advisory boards); Dey Pharmaceuticals.
129.24	**V.A. Davis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Greg Gerhardt. **J.E. Quintero:** F. Consulting Fees (e.g., advisory boards); Quanteon, LLC. **F. Pomerleau:** F. Consulting Fees (e.g., advisory boards); Quanteon, LLC. **P. Huettl:** F. Consulting Fees (e.g., advisory boards); Quanteon, LLC. **G.A. Gerhardt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Quanteon, LLC.
130.06	**T. Milner:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; DA08259, HL098351, AG059850.
130.29	**Y. Furukawa:** A. Employment/Salary (full or part-time):; Col. of Pharmaceut. Sciences, Matsuyama Univ.
131.08	**S.A. Neale:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Director of Neurexpert Limited.
133.09	**B.L. West:** A. Employment/Salary (full or part-time):; Plexxikon Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Plexxikon Inc. **K.N. Green:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Plexxikon Inc.
134.04	**A. Harper:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); The TASTPM mice were originally supplied from GSK to the lab of Dr Frances Edwards. **T.E. Salt:** A. Employment/Salary (full or part-time):; University College London.
134.08	**L.N.G. Nilsson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BioArctic Neuroscience AB.

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134.29 **J.M. Levenson:** A. Employment/Salary (full or part-time):; NeuroPhage. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage. **E. Asp:** A. Employment/Salary (full or part-time):; NeuroPhage. **M. Becker:** A. Employment/Salary (full or part-time):; NeuroPhage. **R. Krishnan:** A. Employment/Salary (full or part-time):; NeuroPhage. **E.J. Mufson:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NeuroPhage. **M. Nadeem:** F. Consulting Fees (e.g., advisory boards); NeuroPhage. **S. Perez:** F. Consulting Fees (e.g., advisory boards); NeuroPhage. **M. Proschitsky:** A. Employment/Salary (full or part-time):; NeuroPhage. **E. Rockenstein:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NeuroPhage. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage. **S. Schroeter:** A. Employment/Salary (full or part-time):; NeuroPhage. **H. Tsubery:** A. Employment/Salary (full or part-time):; NeuroPhage. **K.S. Gannon:** A. Employment/Salary (full or part-time):; NeuroPhage. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroPhage.

136.06 **E.J. Mufson:** F. Consulting Fees (e.g., advisory boards); Neurophage. **M.D. ikonomovic:** F. Consulting Fees (e.g., advisory boards); General Electric Health Care.

137.17 **B. Ferger:** A. Employment/Salary (full or part-time):; Boehringer Ingelheim Pharma GmbH & Co. KG.

138.04 **L.L. Dugan:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); has patent on carboxyfullerene, UCSD, UCSD. **J.S. Perlmutter:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Laura Dugan is on the patent for Carboxyfullerene.

138.05 **M. Chesselet:** Other; Michael J. Fox Foundation.

138.10 **L.H. Bradley:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 3 US patents pending - University of Kentucky. **D.M. Gash:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 3 US patents pending - University of Kentucky. **G.A. Gerhardt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 3 US patents pending - University of Kentucky.

138.12 **C. Ahlem:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Harbor Therapeutics.

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138.13 **L.H. Bradley:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 3 US patents are pending-University of Kentucky. **G.A. Gerhardt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 3 US patents are pending-University of Kentucky. **D.M. Gash:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); 3 US patents are pending-University of Kentucky.

138.14 **X. Bai:** A. Employment/Salary (full or part-time):; PHS, NIH, VA. **E. Fernandez:** A. Employment/Salary (full or part-time):; NIH, VA, PHS. **R. Strong:** A. Employment/Salary (full or part-time):; VA, NIH, PHS.

138.15 **L.H. Kawas:** A. Employment/Salary (full or part-time):; Leen Kawas is employed part time by M3 Biotechnology. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; M3 Biotechnology partially funded this project. **J.W. Wright:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); John Wright and is a founder and stockholder in M3 Biotechnology. **J.W. Harding:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); M3 Biotechnology provided additional support for this project. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Joseph Harding ais a founder and majority stockholder in M3 Biotechnology.

138.18 **H. Karasawa:** A. Employment/Salary (full or part-time):; Daiichi Sankyo Co., Ltd. **C. Pietra:** A. Employment/Salary (full or part-time):; Helsinn SA Lugano. **C. Giuliano:** A. Employment/Salary (full or part-time):; Helsinn SA Lugano. **S. Garcia-Rubio:** A. Employment/Salary (full or part-time):; Helsinn Therapeutics (U.S.), Inc.

142.09 **D.J. Heal:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Shire Pharmaceuticals Limited, Basingstoke RG24 8EP, UK;. **N.W. Buckley:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Shire Pharmaceuticals Limited, Basingstoke RG24 8EP, UK. **C.P. France:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Shire Pharmaceuticals Limited, Basingstoke RG24 8EP, UK.

142.10 **E. Miller:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Atomoxetine was from Eli Lilly. **J.E. Quintero:** F. Consulting Fees (e.g., advisory boards); Consultant for Quanteon LLC. **F. Pomerleau:** F. Consulting Fees (e.g., advisory boards); Consultant for Quanteon LLC. **P. Huettl:** F. Consulting Fees (e.g., advisory boards); Consultant for Quanteon LLC. **G.A. Gerhardt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Owner of Quanteon LLC.

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142.16	**T. Robbins:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Lilly. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GSK.
143.16	**T.P. Sutula:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurogenomex, Inc. F. Consulting Fees (e.g., advisory boards); Tansna, Inc., Pfizer, Inc.
144.15	**P.A. Lapchak:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NINDS NS060685. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Genentech Inc.
146.03	**H. Takagi:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Otsuka Pharmaceutical Co.,Ltd.
147.26	**O.Y. Glushakova:** A. Employment/Salary (full or part-time):; Banyan Biomarkers, Inc. **D. Johnson:** A. Employment/Salary (full or part-time):; Banyan Biomarkers, Inc. **N. Denslow:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Banyan Biomarkers, Inc. **R. Hayes:** A. Employment/Salary (full or part-time):; Banyan Biomarkers, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Banyan Biomarkers, Inc.

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148.04	**E.L. Troy:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics. **A. Ganguly:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics Inc. **C.A. McEwen:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **S.J.E. Wong-Goodrich:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **Z. Huang:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **J.F. Iaci:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **R.W. Colburn:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **A.O. Caggiano:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **T.J. Parry:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc.
148.07	**K. Ando:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Menicon Co., Ltd.
149.02	**T. Freier:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Owner of Medovent.
150.05	**L.L. Hesse:** A. Employment/Salary (full or part-time):; Autifony Therapeutics Ltd. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Autifony Therpeutics Ltd. **L.A. Anderson:** A. Employment/Salary (full or part-time):; Autifony Therapeutics Ltd. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Autifony Therpeutics Ltd. **C.H. Large:** A. Employment/Salary (full or part-time):; Autifony Therapeutics Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Autifony Therapeutics Ltd. **R. Schaette:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Autifony Therapeutics Ltd. **J.F. Linden:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Autifony Therapeutics Ltd.

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150.20 **A. Roholt:** A. Employment/Salary (full or part-time):; Renovo Neural, Inc. **E.K. Benson:** A. Employment/Salary (full or part-time):; Renovo Neural, Inc. **G.J. Kidd:** F. Consulting Fees (e.g., advisory boards); Renovo Neural, Inc.

150.22 **H. Takemura:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; JSPS Postdoctoral Fellowships for Research Abroad. **B.A. Wandell:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; RO1 EY15000.

150.30 **A. Tassoni:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; BBSRC. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Neusentis Pharmaceutical Research Unit Cambridge UK.

151.01 **M.A. Geyer:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Research grant support from Intracellular Therapeutics, Johnson & Johnson. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Equity interest in San Diego Instruments. F. Consulting Fees (e.g., advisory boards); Consulting compensation from Abbott, Acadia, Addex, Cerca, Lundbeck, Merck, Neurocrine, Omeros, Takeda, and Teva. **S.B. Powell:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Research grant support from Servier.

151.09 **K.A. Richardson:** A. Employment/Salary (full or part-time):; Galenea Corp. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Galenea Corp. **J.M. Levenson:** A. Employment/Salary (full or part-time):; Galenea Corp. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Galenea Corp. **E. Buerger:** A. Employment/Salary (full or part-time):; Galenea Corp. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Galenea Corp. **B.N. Buran:** A. Employment/Salary (full or part-time):; Galenea Corp. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Galenea Corp. **D. Gerber:** A. Employment/Salary (full or part-time):; Galenea Corp. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Galenea Corp. **K.M. Spencer:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Galenea Corp. **M.E. Levin:** A. Employment/Salary (full or part-time):; Galenea Corp. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Galenea Corp.

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151.10 **C. Glavis-Bloom:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Roche. **H. Dao:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Roche. **H. Lange:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Roche. **J. Moreau:** A. Employment/Salary (full or part-time):; Roche. **J.G. Wettstein:** A. Employment/Salary (full or part-time):; Roche. **T.M. Ballard:** A. Employment/Salary (full or part-time):; Roche. **T.L. Wallace:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Roche.

152.01 **M.C. Hoener:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche. **A. Harmeier:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche. **R.D. Norcross:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche. **T.L. Wallace:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; F. Hoffmann-La Roche. **C. Risterucci:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche. **J. Moreau:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche. **J.G. Wettstein:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche.

152.04 **D. Feifel:** Other; UCSD.

152.05 **M.P. Kelly:** A. Employment/Salary (full or part-time):; Previously an employee of Pfizer. F. Consulting Fees (e.g., advisory boards); ASUBIO.

152.08 **J. Treanor:** A. Employment/Salary (full or part-time):; Amgen. **H. Chen:** A. Employment/Salary (full or part-time):; Amgen. **O. Murphy:** A. Employment/Salary (full or part-time):; Amgen. **M. Cueva:** A. Employment/Salary (full or part-time):; Amgen. **J. Danao:** A. Employment/Salary (full or part-time):; Amgen. **C. Dias:** A. Employment/Salary (full or part-time):; Amgen. **C. Ilch:** A. Employment/Salary (full or part-time):; Amgen. **K. Taborn:** A. Employment/Salary (full or part-time):; Amgen. **A. Amegadzie:** A. Employment/Salary (full or part-time):; Amgen. **S. Rao:** A. Employment/Salary (full or part-time):; Amgen. **N. Gavva:** A. Employment/Salary (full or part-time):; Amgen. **D. Reid:** A. Employment/Salary (full or part-time):; Amgen. **S. Chen:** A. Employment/Salary (full or part-time):; Amgen. **J. Allen:** A. Employment/Salary (full or part-time):; Amgen. **J. Chen:** A. Employment/Salary (full or part-time):; Amgen. **W. Qian:** A. Employment/Salary (full or part-time):; Amgen. **T.J. Kornecook:** A. Employment/Salary (full or part-time):; Amgen.

ABSTRACT NUMBER	STATEMENT
152.10	**S.M. Smith:** A. Employment/Salary (full or part-time):; Merck Research Labs. **A. Nawrocki:** A. Employment/Salary (full or part-time):; Merck Research Labs. **C. Rodriguez:** A. Employment/Salary (full or part-time):; Merck Research Labs. **D. Toolan:** A. Employment/Salary (full or part-time):; Merck Research Labs. **O. Price:** A. Employment/Salary (full or part-time):; Merck Research Labs. **M. Henry:** A. Employment/Salary (full or part-time):; Merck Research Labs. **G. Forrest:** A. Employment/Salary (full or part-time):; Merck Research Labs. **D. Szeto:** A. Employment/Salary (full or part-time):; Merck Research Labs. **C. Keohane:** A. Employment/Salary (full or part-time):; Merck Research Labs. **Y. Pan:** A. Employment/Salary (full or part-time):; Merck Reseach Labs. **I. Raheem:** A. Employment/Salary (full or part-time):; Merck Research Labs. **C. Cox:** A. Employment/Salary (full or part-time):; Merck Research Labs. **J. Hwa:** A. Employment/Salary (full or part-time):; Merck Research Labs. **J. Renger:** A. Employment/Salary (full or part-time):; Merck Research Labs.
152.11	**N. Adham:** A. Employment/Salary (full or part-time):; Forest Research Institute. **R. El-Mallakh:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Forest Research Institute.
152.13	**J.P. Schuelke:** A. Employment/Salary (full or part-time):; Pfizer. **M. Popiolek:** A. Employment/Salary (full or part-time):; Pfizer. **L. McAllister:** A. Employment/Salary (full or part-time):; Pfizer. **J. Pandit:** A. Employment/Salary (full or part-time):; Pfizer. **T.A. Chappie:** A. Employment/Salary (full or part-time):; Pfizer. **D.S. Johnson:** A. Employment/Salary (full or part-time):; Pfizer. **P.R. Verhoest:** A. Employment/Salary (full or part-time):; Pfizer. **K.F. Geoghegan:** A. Employment/Salary (full or part-time):; Pfizer. **N.J. Brandon:** A. Employment/Salary (full or part-time):; AstraZeneca. **C.J. Schmidt:** A. Employment/Salary (full or part-time):; Pfizer.
152.19	**P. Stolyar:** A. Employment/Salary (full or part-time):; Pfizer Inc. **S.J. Sukoff Rizzo:** A. Employment/Salary (full or part-time):; Pfizer Inc. **T. Chappie:** A. Employment/Salary (full or part-time):; Pfizer Inc. **C.J. Schmidt:** A. Employment/Salary (full or part-time):; Pfizer Inc.
152.20	**P.J. Shughrue:** A. Employment/Salary (full or part-time):; Elan Pharmaceuticals, Prothena BioSciences. **A. Whalen:** A. Employment/Salary (full or part-time):; Elan Pharmaceuticals. **K. Quinn:** A. Employment/Salary (full or part-time):; elan Pharmaceuticals. **S. Abushakra:** A. Employment/Salary (full or part-time):; Elan Pharmaceuticals. **G. Kinney:** A. Employment/Salary (full or part-time):; Prothena BioSciences.
152.21	**S. Hogg:** A. Employment/Salary (full or part-time):; Angita Pharmaceuticals. **M. Heins:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Brains On-Line. **U. Dijkman:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Brains On-Line. **A. Heeres:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Syncom. **M. Droge:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; ABL. **I. Veinbergs:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Brains On-Line. **A.C. McCreary:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Brains On-Line.
152.25	**N.R. Swerdlow:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIMH MH59803.
154.03	**R.C. Miranda:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Grant RO1-AA13440 from NIAAA.
155.09	**D.V. Aillon:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc. **E. Naylor:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc. **B.S. Barrett:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc. **D.V. Gwartney:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc. **S. Gabbert:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc. **D.A. Johnson:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pinnacle Technology, Inc. **P.A. Petillo:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc.
157.06	**M.V. Gudheti:** A. Employment/Salary (full or part-time):; Vutara.
158.08	**K. Mackie:** A. Employment/Salary (full or part-time):; Indiana University. **D.J. Morgan:** A. Employment/Salary (full or part-time):; Penn State College of Medicine.
158.13	**K.B.J. Franklin:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NSERC RGPIN 6303.

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159.11	**M.Á. Villavicencio Camarillo:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CONACyT-179484, Salud2010-02-151001, ICYTDF-PICSA12-126, Productos Medix-000652.
161.15	**T. Taguchi:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; OLYMPUS MEMORY WORKS CORP.
165.16	**Y. Bae:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NRF-2012-0009328.
166.01	**C.B. Pert:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); RAPID Pharmaceuticals. **M.R. Ruff:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); RAPID Pharmaceuticals.
174.03	**O.J. Bosch:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Sanofi-Aventis.
174.22	**S. Okabe:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; JSPS research fellow, DC1. **C. Tsukamoto:** Other; graduated student. **K. Mogi:** A. Employment/Salary (full or part-time):; an associate professor. **T. Kikusui:** A. Employment/Salary (full or part-time):; professor.
175.13	**N.A. Lavidis:** F. Consulting Fees (e.g., advisory boards); Consultant for Neuroscent Pty. Ltd.
177.10	**H. Karasawa:** A. Employment/Salary (full or part-time):; Daiichi Sankyo, Co., Ltd.

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178.05	**M. Rito:** A. Employment/Salary (full or part-time):; UNAM. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Nutrition Research Project. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); DGAPA IN30671. **V. López Alonso:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Nutrition Research Project. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); DGAPA IN306711. **K. Reyes Santos:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Nutrition Research Project. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); DGAPA IN306711. **G. Ambrocio Segundo:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Nutrition Research Project. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); DGAPA IN306711. **K. Cruz García:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Nutrition Research Project. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); DGAPA IN306711. **J. Mancilla Díaz:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Nutrition Research Project. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); DGAPA IN306711.
179.01	**J. Sussman:** A. Employment/Salary (full or part-time):; Department of Psychology, University of British Columbia, Canada. **W.K. Adams:** A. Employment/Salary (full or part-time):; UBC Institute of Mental Health. **S. Kaur:** A. Employment/Salary (full or part-time):; Department of Psychology, University of British Columbia, Canada. **C.A. Winstanley:** A. Employment/Salary (full or part-time):; University of British Columbia.
181.24	**C.M. Gillan:** A. Employment/Salary (full or part-time):; Medical Research Council. **A.M. Apergis-Schoute:** A. Employment/Salary (full or part-time):; Wellcome Trust. **S. Morein-Zamir:** A. Employment/Salary (full or part-time):; Wellcome Trust. **E. Fernandez-Egea:** A. Employment/Salary (full or part-time):; Wellcome Trust and Medical Research Council.

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182.01	**A.J. Ryals:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Lynn Sage Cancer Research Foundation, NINDS T32NS047987, R00NS069788. **J.L. Voss:** B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; R00NS069788, Lynn Sage Cancer Research Foundation.
183.01	**M. Oliver:** A. Employment/Salary (full or part-time):; Basque Center on Cogntion, Brain and Language (BCBL).
184.06	**K. Katahira:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Advanced Technology R&D Center, Mitsubishi Electric Corporation. **N. Nagata:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Advanced Technology R&D Center, Mitsubishi Electric Corporation. **K. Miya:** A. Employment/Salary (full or part-time):; Advanced Technology R&D Center, Mitsubishi Electric Corporation. **S. Furukawa:** A. Employment/Salary (full or part-time):; Advanced Technology R&D Center, Mitsubishi Electric Corporation.
185.23	**L. Baker:** A. Employment/Salary (full or part-time):; University of Southern California. B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH/ NIMH R01-MH58354.
188.04	**S.J. Hersman:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIMH grant MH62122 to MSF, T32 grant DA024635-03 to JNP.
189.08	**M. Song:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NRF-2006-2005112, NRF-2012R1A2A4A01008836. **J. Choi:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NRF-2012R1A2A4A01008836, NRF-2006-2005112.
189.09	**D. Feifel:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); DF is an named inventor on an oxytocin method of use patent application.
189.12	**G.L. Quirarte:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; UNAM.

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189.18	**A.M. Watabe:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Kakenhi, Grant-in-Aid for Scientific Research, PREST, JST. **F. Kato:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Kakenhi, Grant-in-Aid for Scientific Research.
191.16	**M. Fattahi:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; WCI 2009-003.
191.29	**T. Geiller:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; WCI 2009-003.
192.15	**J.R. Rusche:** A. Employment/Salary (full or part-time):; Repligen Corporation, Waltham MA 02453.
192.16	**J. Lugo:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Principal Investigator.
193.05	**J.H. Byrne:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH R01-MH058321.
194.07	**C. Norris:** A. Employment/Salary (full or part-time):; Wilfrid Laurier University. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Ontario Problem Gambling Research Centre Seed Grant, Paul E. Mallet. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Equipment purchased with help of NSERC. **P.E. Mallet:** A. Employment/Salary (full or part-time):; Wilfrid Laurier University. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; OPGRC Seed Grant. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Equipment purchased with help of NSERC.
194.10	**N.G. Simon:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Azevan pharmaceuticals. **S. Lu:** A. Employment/Salary (full or part-time):; Azevan Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Azevan Pharmaceuticals.
197.02	**J.K. Mai:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MR-X-Brain GmbH. **M. Majtanik:** A. Employment/Salary (full or part-time):; MR-X-Brain GmbH.
197.10	**K.K. Majumdar:** A. Employment/Salary (full or part-time):; Indian Statistical Institute.

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198.12	**S.C. Fowler:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); S.C. Fowler receives a modest royalty when BASi sells a force plate actimeter.
198.15	**S. Lauchie:** A. Employment/Salary (full or part-time):; HHMI.
209.04	**T.M. Shah:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Posit Science, USA has provided the software products. **G. Verdile*:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Posit Science, USA has provided the software products. **H. Sohrabi:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Posit Science, USA has provided the software products. **A. Campbell:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Posit Science, USA has provided the software products. **R. Martins:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Posit Science, USA has provided the software products.
209.07	**W.E. Klunk:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); GE Healthcare. F. Consulting Fees (e.g., advisory boards); GE Healthcare. **C.A. Mathis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); GE Healthcare. F. Consulting Fees (e.g., advisory boards); GE Healthcare. **M.D. Ikonomovic:** F. Consulting Fees (e.g., advisory boards); GE Healthcare.
209.11	**V. Reiser:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; General Electric Healthcare. **P. Jones:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; General Electric Healthcare. **W. Trigg:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; General Electric Healthcare.
211.06	**B. Della Valle:** A. Employment/Salary (full or part-time):; Novo Nordisk. **J. Kurtzhals:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Novo Nordisk.
211.14	**F.M. Longo:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Dr. Longo is a founder of and retains financial interest in PharmatrophiX Inc., a company focused on the development of neurotrophin ligands including LM11A-31.

ABSTRACT NUMBER	STATEMENT
213.08	**A. Bobadilla:** A. Employment/Salary (full or part-time):; Ministère de l'Education Nationale et de la Recherche. **E. Doucet:** A. Employment/Salary (full or part-time):; CNRS. **V. Houades:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Servier. **C. Lanteri:** A. Employment/Salary (full or part-time):; MILDT. **G. Godeheu:** A. Employment/Salary (full or part-time):; Inserm. **L. Lanfumey:** A. Employment/Salary (full or part-time):; Inserm. **S.J. Sara:** A. Employment/Salary (full or part-time):; CNRS. **J. Tassin:** A. Employment/Salary (full or part-time):; Inserm.
213.10	**J.J. Hadlock:** A. Employment/Salary (full or part-time):; Sch. Medicine, Univ. of Washington, Seattle, WA, USA, Dept. VCAPP/Neuroscience, Washington State Univ. Pullman, WA, USA.
218.01	**G.A. Silva:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Nanovision Biosciences. F. Consulting Fees (e.g., advisory boards); Nanovision Biosciences.
218.02	**N.A. Melosh:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent Application US 20120222970 A1, Stealth Biosciences.
218.09	**T. Blanche:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); White Matter LLC. **M. Borisov:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); White Matter LLC.
218.11	**M.D. Menz:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent pending. **P.T. Khuri-Yakub:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent pending. **S.A. Baccus:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent pending.
223.14	**C. Metcalf:** A. Employment/Salary (full or part-time):; NeuroAdjuvants, Inc.,Salt lake city, UT, USA. **B. Klein:** A. Employment/Salary (full or part-time):; NeuroAdjuvants, Inc.,Salt lake city, UT, USA. **H. White:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroAdjuvants, Inc.,Salt lake city, UT, USA.
223.22	**D. Song:** A. Employment/Salary (full or part-time):; Lundbeck. **H. Zhou:** A. Employment/Salary (full or part-time):; Lundbeck. **A.T. Hopper:** A. Employment/Salary (full or part-time):; Lundbeck. **G.N. Smagin:** A. Employment/Salary (full or part-time):; Lundbeck. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lundbeck.
224.04	**J.S. Sprouse:** F. Consulting Fees (e.g., advisory boards); HiQScreen. **S. Bertrand:** A. Employment/Salary (full or part-time):; HiQScreen. **E. Neveu:** A. Employment/Salary (full or part-time):; HiQScreen. **T. Schaer:** A. Employment/Salary (full or part-time):; HiQScreen. **D. Bertrand:** A. Employment/Salary (full or part-time):; HiQScreen.

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224.06	**E. Israël-Assayag:** A. Employment/Salary (full or part-time):; Asmacure Ltée. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asmacure Ltée. **R.L. Papke:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Asmacure Ltée.
224.17	**S. Bertrand:** A. Employment/Salary (full or part-time):; hiqscreen. **E. Neveu:** A. Employment/Salary (full or part-time):; hiqscreen. **T. Schaer:** A. Employment/Salary (full or part-time):; hiqscreen. **D. Bertrand:** A. Employment/Salary (full or part-time):; hiqscreen.
224.20	**Y. Xiao:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); inventor of patents. **Y. Liu:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); inventor of patents. **M. Paige:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); inventor of patents. **M.L. Brown:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); inventor of patents. **A.H. Rezvani:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); inventor of patents. **E.D. Levin:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); inventor of patents. **K.J. Kellar:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); inventor of patents.
224.24	**K.J. Kellar:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent. **Y. Xiao:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent.
224.28	**D. Yohannes:** A. Employment/Salary (full or part-time):; Targacept, Inc.
226.06	**E.B. Stevens:** A. Employment/Salary (full or part-time):; Pfizer. **A.R. Brown:** A. Employment/Salary (full or part-time):; Pfizer. **L. Cao:** A. Employment/Salary (full or part-time):; Pfizer. **P. Saintot:** A. Employment/Salary (full or part-time):; Pfizer. **G.T. Young:** A. Employment/Salary (full or part-time):; Pfizer. **M.L. Chapman:** A. Employment/Salary (full or part-time):; Pfizer. **A. Nitzsche:** A. Employment/Salary (full or part-time):; Pfizer. **J.G. Bilsland:** A. Employment/Salary (full or part-time):; Pfizer. **R.P. Butt:** A. Employment/Salary (full or part-time):; Pfizer. **C.E. Payne:** A. Employment/Salary (full or part-time):; Pfizer.
226.08	**M.K. Patel:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pfizer Neusentis. **M. Chapman:** A. Employment/Salary (full or part-time):; Neusentis. **E.B. Stevens:** A. Employment/Salary (full or part-time):; Pfizer Neusentis.

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226.10	**B.D. Moyer:** A. Employment/Salary (full or part-time):; Amgen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Amgen. **D. Liu:** A. Employment/Salary (full or part-time):; Amgen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Amgen. **J. Ligutti:** A. Employment/Salary (full or part-time):; Amgen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Amgen. **A. Zou:** A. Employment/Salary (full or part-time):; Amgen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Amgen. **J.K. Murray:** A. Employment/Salary (full or part-time):; Amgen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Amgen. **L.P. Miranda:** A. Employment/Salary (full or part-time):; Amgen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Amgen. **S.I. McDonough:** A. Employment/Salary (full or part-time):; Amgen. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Amgen.
226.14	**D.H. Feldman:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Research agreement with UCB Pharmaceuticals. **C. Lossin:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Research agreement with UCB Pharmaceuticals.
226.17	**F. Laezza:** Other; Center for Addiction Research, Center for Biomedical Engineering, Mitchell Center for Neurodegenerative Diseases.
233.02	**R.L. Huganir:** F. Consulting Fees (e.g., advisory boards); Millipore Corporation.
235.09	**A.L. Cordle:** A. Employment/Salary (full or part-time):; UNC Hospitals Psychiatry Resident. **B.V. Vaughn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GSK, Johns Hopkins University.
235.11	**R. Van Der Meij:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Radboud University Nijmegen. **E. Maris:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Radboud University Nijmegen.
236.03	**S.P. Vickers:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Shire Pharmaceuticals Limited, Basingstoke RG24 8EP, UK. **D.J. Heal:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Shire Pharmaceuticals Limited, Basingstoke RG24 8EP, UK.

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236.06	**J. Lee:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; a grant from the Korea Healthcare Technology R&D Project, Ministry for Health and Welfare, South Korea (No. A120157).
237.04	**A. Buisson:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Fondation Neurodis; ANR MAALAD.
237.06	**K. Mozzoni:** A. Employment/Salary (full or part-time):; Full-Time Employee of Cognition Therapeutics. **C. Rehak:** A. Employment/Salary (full or part-time):; Part-time employee of Cognition Therapeutics. **C. Silky:** A. Employment/Salary (full or part-time):; Full-Time Employee of Cognition Therapeutics. **N.J. Izzo:** A. Employment/Salary (full or part-time):; Full-Time Employee of Cognition Therapeutics. **R. Yurko:** A. Employment/Salary (full or part-time):; Part-Time Employee of Cognition Therapeutics. **H. Safferstein:** A. Employment/Salary (full or part-time):; Full-Time Employee at Cognition Therapeutics. **G. Rishton:** A. Employment/Salary (full or part-time):; Full-Time Employee of Cognition Therapeutics. **S.M. Catalano:** A. Employment/Salary (full or part-time):; Full-Time Employee of Cognition Therapeutics.
237.07	**N.J. Izzo:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **K. Mozonni:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **C. Silky:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **C. Rehak:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **R. Yurko:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. **R. Mach:** F. Consulting Fees (e.g., advisory boards); Cognition Therapeutics. **G. Rishton:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **H. Safferstein:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics. **S.M. Catalano:** A. Employment/Salary (full or part-time):; Cognition Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognition Therapeutics.

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239.10	**S.D. Croll:** A. Employment/Salary (full or part-time):; Regeneron Pharmaceuticals. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Regeneron Pharmaceuticals. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Regeneron Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Regeneron Pharmaceuticals.
239.17	**M. Tansey:** F. Consulting Fees (e.g., advisory boards); Karyopharm, Angiochem. Other; ex-employee of Xencor Inc which is developing XPro for neurological indications but is not a paid consultant and does not hold significant financial stake in the company.
240.16	**H. Melrose:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Mayo Foundation. **M.J. Farrer:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Mayo Foundation. F. Consulting Fees (e.g., advisory boards); International Editorial board for ParkinsonismandRelatedDisordersIn, Parkinson Society of Canada Scientific Advisory Board member, Michael J. Fox Foundation Executive Scientific Advisory Board Member, EURAC Scientific Advisory Council member.
240.17	**H.L. Melrose:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Mayo Foundation. **M.J. Farrer:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Mayo Foundation. F. Consulting Fees (e.g., advisory boards); International Editorial board for Parkinsonism and Related Disorders, Parkinson Society of Canada Scientific Advisory Board member, Michael J. Fox Foundation Executive Scientific Advisory Board member, EURAC Scientific Advisory Council member.
241.18	**D.W. Ko:** A. Employment/Salary (full or part-time):; Motac Neuroscience. **Q. Li:** A. Employment/Salary (full or part-time):; Motac Neuroscience. **E. Bezard:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Motac Holding.
241.24	**D.J. Surmeier:** F. Consulting Fees (e.g., advisory boards); Merck, Pfizer, Teva Neuroscience.

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242.02 **S. Zhong:** A. Employment/Salary (full or part-time):; PsychoGenics. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CHDI foundation. **G. Tombaugh:** A. Employment/Salary (full or part-time):; PsychoGenics. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CHDI foundation. **L. Mrzljak:** A. Employment/Salary (full or part-time):; CHDI. **V. Beaumont:** A. Employment/Salary (full or part-time):; CHDI. **C. Schmidt:** A. Employment/Salary (full or part-time):; Pfizer. **M. Zaleska:** A. Employment/Salary (full or part-time):; Pfizer. **C. Chang:** A. Employment/Salary (full or part-time):; Pfizer. **A. Ghavami:** A. Employment/Salary (full or part-time):; PsychoGenics. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CHDI foundation.

242.17 **D.F. Fischer:** A. Employment/Salary (full or part-time):; BioFocus. **J. Bate:** A. Employment/Salary (full or part-time):; BioFocus. **S. Dowler:** A. Employment/Salary (full or part-time):; BioFocus. **V. Lazari:** A. Employment/Salary (full or part-time):; BioFocus. **S. Dijkstra:** A. Employment/Salary (full or part-time):; Galapagos. **G. McAllister:** A. Employment/Salary (full or part-time):; BioFocus. **J. Wityak:** A. Employment/Salary (full or part-time):; CHDI Management/CHDI Foundation. **I. Munoz-Sanjuan:** A. Employment/Salary (full or part-time):; CHDI Management/CHDI Foundation.

242.18 **R. Kuhn:** A. Employment/Salary (full or part-time):; Redbark gmbh. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IRBM PROMIDIS. **A. Weiss:** A. Employment/Salary (full or part-time):; IRBM PROMIDIS. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IRBM PROMIDIS. **M. Verani:** A. Employment/Salary (full or part-time):; IRBM PROMIDIS. **L. Azzolini:** A. Employment/Salary (full or part-time):; IRBM PROMIDIS. **V. Fodale:** A. Employment/Salary (full or part-time):; IRBM PROMIDIS. **A. Caricasole:** A. Employment/Salary (full or part-time):; IRBM PROMIDIS. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IRBM PROMIDIS.

242.20 **A. Weiss:** A. Employment/Salary (full or part-time):; IRBM PROMIDIS. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IRBM PROMIDIS. **R. Boggio:** A. Employment/Salary (full or part-time):; IRBM PROMIDIS. **V. Fodale:** A. Employment/Salary (full or part-time):; IRBM PROMIDIS. **A. Caricasole:** A. Employment/Salary (full or part-time):; IRBM PROMIDIS. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IRBM PROMIDIS. **D. Marchionini:** A. Employment/Salary (full or part-time):; CHDI. **R. Kuhn:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IRBM PROMIDIS.

243.01 **J.W. Lewcock:** A. Employment/Salary (full or part-time):; Genentech Inc, South San Francisco, CA 94080.

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243.10 **R.P. Bowser:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Iron Horse Diagnostics, Inc.

243.16 **L. Shi:** A. Employment/Salary (full or part-time):; University of South Carolina. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; 1RO1NS056314. **J. Pandey:** A. Employment/Salary (full or part-time):; Harvard Medical School. **D. Smith:** A. Employment/Salary (full or part-time):; University of South Carolina.

245.06 **J.I. Berman:** F. Consulting Fees (e.g., advisory boards); McGowan Associates.

245.08 **E.H. Sherr:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ingenuity Systems.

245.11 **T.P. Roberts:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Seaside Therapeutics. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); Elekta. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Prism Clinical Imaging.

245.20 **D.C. Ferrari:** A. Employment/Salary (full or part-time):; Neurochlore. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurochlore. **R. Nardou:** A. Employment/Salary (full or part-time):; Neurochlore. **T. Tsintsadze:** A. Employment/Salary (full or part-time):; Neurochlore. **Y. Ben-Ari:** A. Employment/Salary (full or part-time):; Neurochlore. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurochlore.

246.01 **J.A. Frazier:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Seaside Therapeutics, Roche Pharmaceuticals.

246.06 **J.J. Pekar:** A. Employment/Salary (full or part-time):; Philips.

246.09 **K. Angkustsiri:** Other; KA is sub-investigator on clinical trials sponsored by Roche, Novartis, Curemark, Forest Laboratories, and Seaside Therapeutics.

247.01 **J.E. Quintero:** F. Consulting Fees (e.g., advisory boards); George Quintero recieves consulting fees from Quanteon, LLC. **F. Pomerleau:** F. Consulting Fees (e.g., advisory boards); Francois Pomerleau is a consultant for Quanteon, LLC. **P. Huettl:** F. Consulting Fees (e.g., advisory boards); Peter Huettl is a consultant for Quanteon, LLC. **G.A. Gerhardt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Greg A. Gerhardt is the principal owner of Quanteon, LLC.

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247.12 **C.L. Hill:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); CBDV provided by GW Pharmaceuticals plc. **B.J. Whalley:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Funded by GW Pharmaceuticals plc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); CBDV provided by GW Pharmaceuticals plc. **C.M. Williams:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Funded by GW Pharmaceuticals plc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); CBDV provided by GW Pharmaceuticals plc. **G.J. Stephens:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Funded by GW Pharmaceuticals plc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); CBDV provided by GW Pharmaceuticals plc.

248.05 **K. Jeong:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Mid-Career Researcher Program through the National Research Foundation of Korea (NRF) grant funded by the MEST (2001-0028319).

248.17 **L. Roberts:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Vanderbilt University owns a patent for SA licensed to Metabolic Technologies, Inc. in Ames, Iowa that is currently developing SA for treatment of diseases in humans.

249.05 **J.S. Maniscalco:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; O'Brien Technologies Inc., Kessler Foundation. **A.M. Barrett:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; O'Brien Technologies Inc., Kessler Foundation, NIH Department of Education.

249.08 **W. Chang:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Basic Science Research Program through the National Research Foundation of Korea (NRF) funded by the Ministry of Education, Science and Technology and a KOSEF grant.

249.14 **A. Machado:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IntElect Medical, ATI, Cardionomics, Boston Scientific. Consultant/Advisory Board; IntElect Medical, Monteris, Boston Scientific.

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249.15 **L.M. Rogers:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Nexstim, Inc. **R.L. Harvey:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Nexstim, Inc.

249.25 **F. Geranmayeh:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Wellcome Trust funding for research training fellowship. **R.J.S. Wise:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; MRC funding for research.

249.27 **T.A. Doucette:** F. Consulting Fees (e.g., advisory boards); Neurodyn, Inc. **R.A. Tasker:** F. Consulting Fees (e.g., advisory boards); Neurodyn, Inc.

250.06 **L.M. Soares:** A. Employment/Salary (full or part-time):; Fundação Araucária, Capes, CNPq. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); State University of Maringá.

250.13 **C. McEwen:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **S.J.E. Wong-Goodrich:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **Z. Huang:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **E.L. Troy:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **A. Ganguly:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **R.W. Colburn:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **A.O. Caggiano:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc. **T.J. Parry:** A. Employment/Salary (full or part-time):; Acorda Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acorda Therapeutics, Inc.

251.04 **H. Hu:** A. Employment/Salary (full or part-time):; Center for Basic and Translational Stroke Research, Department of Physiology & Pharmacology, Robert C. Byrd Health Sciences Center, West Virginia University.

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251.17	**W.J. Banz:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Solae, LLC. **D.A. Butteiger:** A. Employment/Salary (full or part-time):; Sola, LLC. **J.L. Cheatwood:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Solae, LLC.
253.08	**S.P. Mahadik:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Janssen Pharmaceutica Research Foundation, US.
254.02	**C.A. Tamminga:** A. Employment/Salary (full or part-time):; Full Time at UT Southwestern Medical Center. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Drug study with Sunovion Pharmaceuticals. F. Consulting Fees (e.g., advisory boards); Eli Lilly, Lundbeck, Inc, Astellas, Intra-cellurlar Therapies.
254.11	**L. Kegeles:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Amgen. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pfizer.
254.12	**L.S. Kegeles:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Amgen. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pfizer.
254.16	**D.A. Lewis:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Bristol-Meyers Squibb, Curridium Ltd and Pfizer. F. Consulting Fees (e.g., advisory boards); Bristol-Meyers Squibb, Concert Pharmaceuticals.
254.25	**J.T. Coyle:** F. Consulting Fees (e.g., advisory boards); ABBvie. **F.M. Benes:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Takeda.
254.26	**D.A. Lewis:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Bristol-Myers Squibb, Pfizer. F. Consulting Fees (e.g., advisory boards); Bristol-Myers Squibb, Concert Pharmaceuticals.
255.01	**R. Willems:** A. Employment/Salary (full or part-time):; Janssen Reseach&Developmen, A division of Janssen Pharmaceutica NV. **L. Ver Donck:** A. Employment/Salary (full or part-time):; Janssen Reseach&Developmen, A division of Janssen Pharmaceutica NV.
255.06	**S. Antharvedi Goda:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); S Antharvedi Goda and the research are supported by the grant MPD4-406 awarded by FNP.

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255.08	**J. Matricon:** A. Employment/Salary (full or part-time):; UTHSCSA. **A. Seillier:** A. Employment/Salary (full or part-time):; UTHSCSA. **A. Giuffrida:** A. Employment/Salary (full or part-time):; UTHSCSA. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; This research is supported by NIMH grant RO1MH91130 (AG).
255.13	**C. Schifani:** A. Employment/Salary (full or part-time):; Neuroscience Research, AbbVie. **M. Klee:** A. Employment/Salary (full or part-time):; Neuroscience Research, AbbVie. **B. Janson:** A. Employment/Salary (full or part-time):; Neuroscience Research, AbbVie. **A. Relo:** A. Employment/Salary (full or part-time):; Neuroscience Research, AbbVie. **C. Klein:** A. Employment/Salary (full or part-time):; Neuroscience Research, AbbVie. **A.Y. Bespalov:** A. Employment/Salary (full or part-time):; Neuroscience Research, AbbVie.
255.16	**N. Plath:** A. Employment/Salary (full or part-time):; Lundbeck. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); IMI-NewMeds. **P.H. Larsen:** A. Employment/Salary (full or part-time):; Lundbeck. **J.P. Redrobe:** A. Employment/Salary (full or part-time):; Lundbeck. **L. Lerdrup:** A. Employment/Salary (full or part-time):; Lundbeck.
255.20	**T.M. Ballard:** A. Employment/Salary (full or part-time):; F.Hoffmann-La Roche AG. **R. Wyler:** A. Employment/Salary (full or part-time):; F.Hoffmann-La Roche AG. **T. Burns:** A. Employment/Salary (full or part-time):; F.Hoffmann-La Roche AG.
255.21	**D. Young:** A. Employment/Salary (full or part-time):; Pfizer Inc. Other; This work is part of the Innovative Medicines Initiative (IMI) project, Novel Methods leading to New Medications in Depression and Schizophrenia (NEWMEDS). **W.M. Howe:** A. Employment/Salary (full or part-time):; Pfizer Inc. **R. Graf:** A. Employment/Salary (full or part-time):; Pfizer Inc. **S.M. O'Neill:** A. Employment/Salary (full or part-time):; Pfizer Inc. **T.A. Lanz:** A. Employment/Salary (full or part-time):; Pfizer Inc. **R. Kozak:** A. Employment/Salary (full or part-time):; Pfizer Inc.
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255.24	**L.M. Saksida:** F. Consulting Fees (e.g., advisory boards); LMS consult for Camden Instruments. **T.W. Robbins:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Lilly, Lundbeck. F. Consulting Fees (e.g., advisory boards); Cambridge Cognition, Lilly, Lundbeck, Teva, Shire Pharmaceuticals, Merck Sharp and Dohme. Other; GSK Editorial: Springer Verlag. **T.J. Bussey:** F. Consulting Fees (e.g., advisory boards); TJB consult for Camden Intruments.
255.27	**M.J. Millan:** A. Employment/Salary (full or part-time):; IdR Servier. **B. Chanrion:** A. Employment/Salary (full or part-time):; IdR Servier. **E. Schenker:** A. Employment/Salary (full or part-time):; IdR Servier. **B.P. Lockhart:** A. Employment/Salary (full or part-time):; IdR Servier. **C. Mannoury-La Cour:** A. Employment/Salary (full or part-time):; IdR Servier.

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256.13 **J.M. Gulley:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Abbott Laboratories.

256.17 **B. Gonzalez:** A. Employment/Salary (full or part-time):; Postdoctoral Award, Fundacion Bunge y Born, Argentina.

257.12 **P.J. Wellman:** A. Employment/Salary (full or part-time):; Texas A&M University. **S. Eitan:** A. Employment/Salary (full or part-time):; Texas A&M University.

257.13 **B.E. Schmeichel:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Neurocrine Biosciences. **G.F. Koob:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Neurocrine Biosciences.

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258.06 **R. Hamasaki:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Taisho pharmaceutical Co., LTD. **F. Soeda:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Taisho pharmaceutical Co., LTD. **K. Takahama:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Taisho pharmaceutical., Co., LTD.

258.07 **P.D. Roberts:** A. Employment/Salary (full or part-time):; In Silico Biosciences, Inc. **H. Geerts:** A. Employment/Salary (full or part-time):; In Silico Biosciences, Inc. **A. Spiros:** A. Employment/Salary (full or part-time):; In Silico Biosciences, Inc.

258.10 **W.A. Eckert:** A. Employment/Salary (full or part-time):; Janssen Research & Development, L.L.C. **G. Chen:** A. Employment/Salary (full or part-time):; Janssen Research & Development, L.L.C.

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258.11 **M.J. O'Callaghan:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Cerca Insights. **W.C. Li:** A. Employment/Salary (full or part-time):; Cerca Insights. **R.A. McArthur:** F. Consulting Fees (e.g., advisory boards); McArthur and Associates, GmbH. **M. Varney:** A. Employment/Salary (full or part-time):; Neurolixis, Inc. **A. Newman-Tancredi:** A. Employment/Salary (full or part-time):; neurolixis, Inc.

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265.03 **C. Phillips:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cochlear, Ltd. **C. DeFrancisci:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cochlear, Ltd. **L. Ling:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cochlear, Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of Washington, Cochlear, Ltd. **K. Nie:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cochlear, Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of Washington, Cochlear, Ltd. **A. Nowack:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cochlear, Ltd. **J.O. Phillips:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Cochlear, Ltd. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cochlear, Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of Washington, Cochlear, Ltd. **J.T. Rubinstein:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Cochlear, Ltd. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cochlear, Ltd. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of Washington, Cochlear, Ltd. F. Consulting Fees (e.g., advisory boards); Cochlear, Ltd.

266.11 **S. McMurray:** A. Employment/Salary (full or part-time):; Pfizer Global Research and Development.

266.13 **A. Gerlach:** A. Employment/Salary (full or part-time):; Pfizer.

J. Theile: A. Employment/Salary (full or part-time):; Pfizer. **M. Fuller:** A. Employment/Salary (full or part-time):; Pfizer. **K. Yoger:** A. Employment/Salary (full or part-time):; Pfizer. **A. Moss:** A. Employment/Salary (full or part-time):; Pfizer. **B. Sidders:** A. Employment/Salary (full or part-time):; Pfizer. **M.L. Chapman:** A. Employment/Salary (full or part-time):; Pfizer, Neusentis.

267.05 **B.A. Winkelstein:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; PI of contract with St. Jude.

268.06 **D.J. Clauw:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Forest Laboratories Inc., Pfizer Inc., Nuvo Pharmaceuticals Inc. F. Consulting Fees (e.g., advisory boards); Pfizer Inc., Forest Laboratories Inc., Eli Lilly and Company, Pierre Fabre Pharmaceuticals, Cypress Bioscience Inc., Wyeth, USC, Astra Zeneca, Merck, J & J, Nuvo, Jazz Pharmaceuticals plc, Abbott. **R.E. Harris:** F. Consulting Fees (e.g., advisory boards); Pfizer Inc. **S.E. Harte:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Forest Laboratories, Inc., Merck & Co., Inc.

268.20 **S. Fukasawa:** A. Employment/Salary (full or part-time):; TOYORESIN corporation. **S. Ide:** A. Employment/Salary (full or part-time):; TOYORESIN corporation.

268.22 **M. Nedelman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging. **P. Kulkarni:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging. **C.F. Ferris:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Animal Imaging Research, Ekam Imaging.

270.08 **K. Takakusaki:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; K.T. has received founding from Japanese Ministry of Education, Culture, Sports, Science and Technology ("Scientific Research-B; Grant # 2529001" and "Challenging Exploratory Research; Grant # 2365020.

272.25 **S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BKIN Technologies.

272.26 **S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BKIN Technologies.

272.27 **S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BKIN Technologies.

273.07 **G. Garipelli:** A. Employment/Salary (full or part-time):; MindMaze SA, Ecublens 1024, Switzerland. **V. Liakoni:** A. Employment/Salary (full or part-time):; MindMaze SA, Ecublens 1024, Switzerland. **D. Perez-Marcos:** A. Employment/Salary (full or part-time):; MindMaze SA, Ecublens 1024, Switzerland. **T. Tadi:** A. Employment/Salary (full or part-time):; MindMaze SA, Ecublens 1024, Switzerland.

277.06 **P. Rolan:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-holder of a provisional patent for the use of ibudilast in the treatment of medication overuse headache.

277.17 **V.K. Kuchibhotla:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **A. Rudra:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **M.V. Sreedhara:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **S. Singh:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **E. Durga Shiva Prasad:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **M. Lal Das:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **M. Senthil Kumar:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **R. Yadav:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **R.K. Trivedi:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **S.N. Pattipati:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **L. Bristow:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb. **R. vikramadithyan:** A. Employment/Salary (full or part-time):; Bristol Myers Squibb.

280.08 **L. Zhu:** A. Employment/Salary (full or part-time):; no. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; National Basic Research Program of China (2013CB531906). C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); no. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); no. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); no. F. Consulting Fees (e.g., advisory boards); no. Other; no.

280.17 **C.A. Lowry:** F. Consulting Fees (e.g., advisory boards); Enlight Biosciences.

282.11 **H. Offner:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Artielle ImmunoTherapeutics, Inc.

282.15 **T. Stobdan:** A. Employment/Salary (full or part-time):; Univ of California San Diego. **D. Zhou:** A. Employment/Salary (full or part-time):; University of California San Diego. **G. Haddad:** A. Employment/Salary (full or part-time):; Univ of California San Diego.

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286.16 **S.E. Goldfarb:** A. Employment/Salary (full or part-time):;

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287.09 **W.E. Mueller:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; UCB, Schwabe. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); UCB,Schwabe,Lundbeck. F. Consulting Fees (e.g., advisory boards); UCB,Schwabe,Lundbeck. **K. Leuner:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; UCB, Schwabe. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); UCB.

287.10 **Y. Oyamada:** A. Employment/Salary (full or part-time):; DSP employee.

288.11 **T.W. Robbins:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Research Grant: GSK, Lilly, Lundbeck, Consultant/Advisory Board: GSK, Cambridge Cognition, Merck, Lilly, Lundbeck.

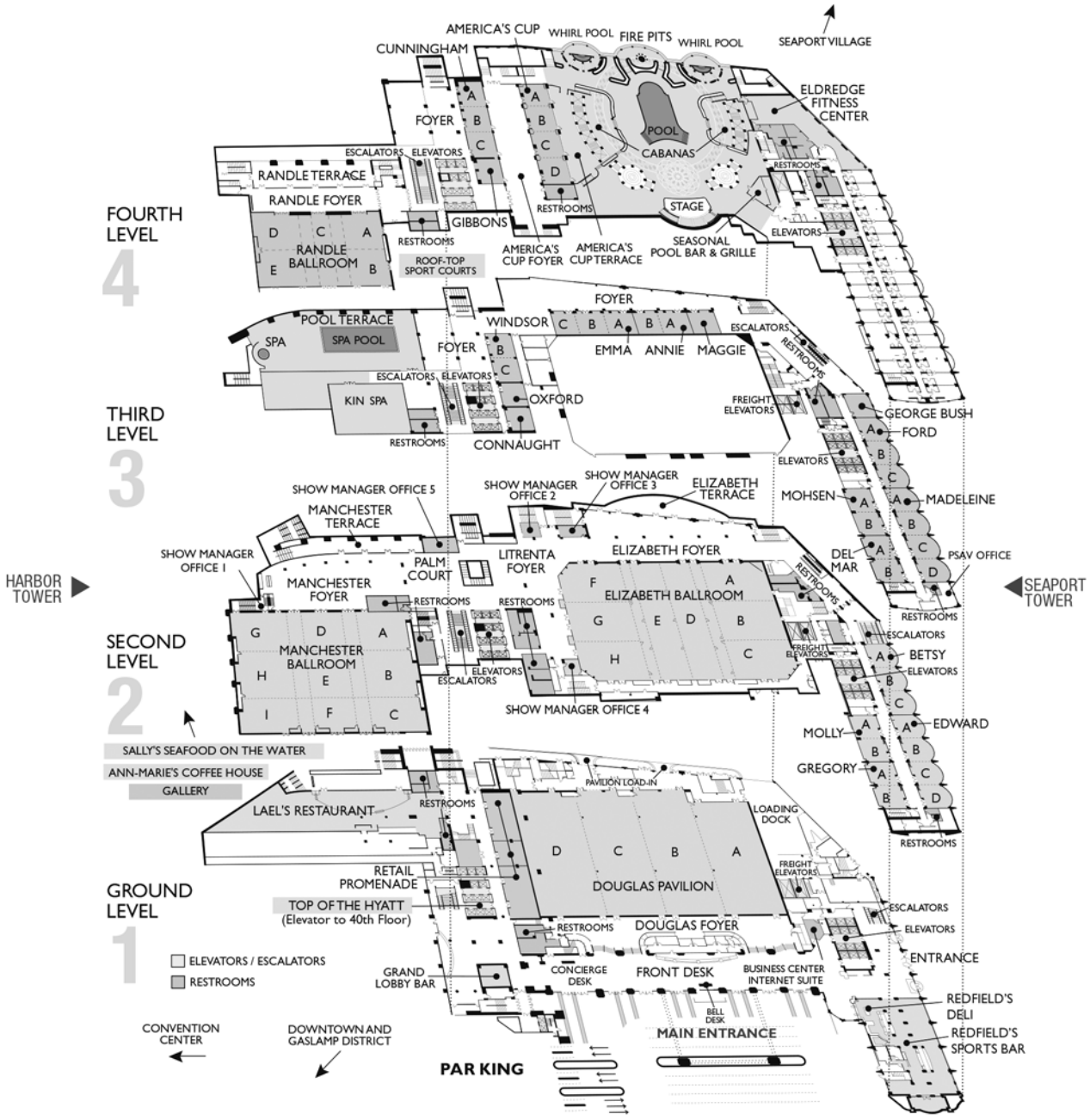
288.21 **E. Ulupinar:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); TUBITAK grant #: 112S010 and Scientific Research Commission of ESOGU project #:201211C102.

290.02 **A. Markou:** A. Employment/Salary (full or part-time):; University of California San Diego. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH Grant U01-AA019970-NADIA. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Bristol-Myers-Squibb.

292.14 **L.F. Coque:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Almorexant was donated by Actelion for this research.

Hotel Floor Plans

Manchester Grand Hyatt

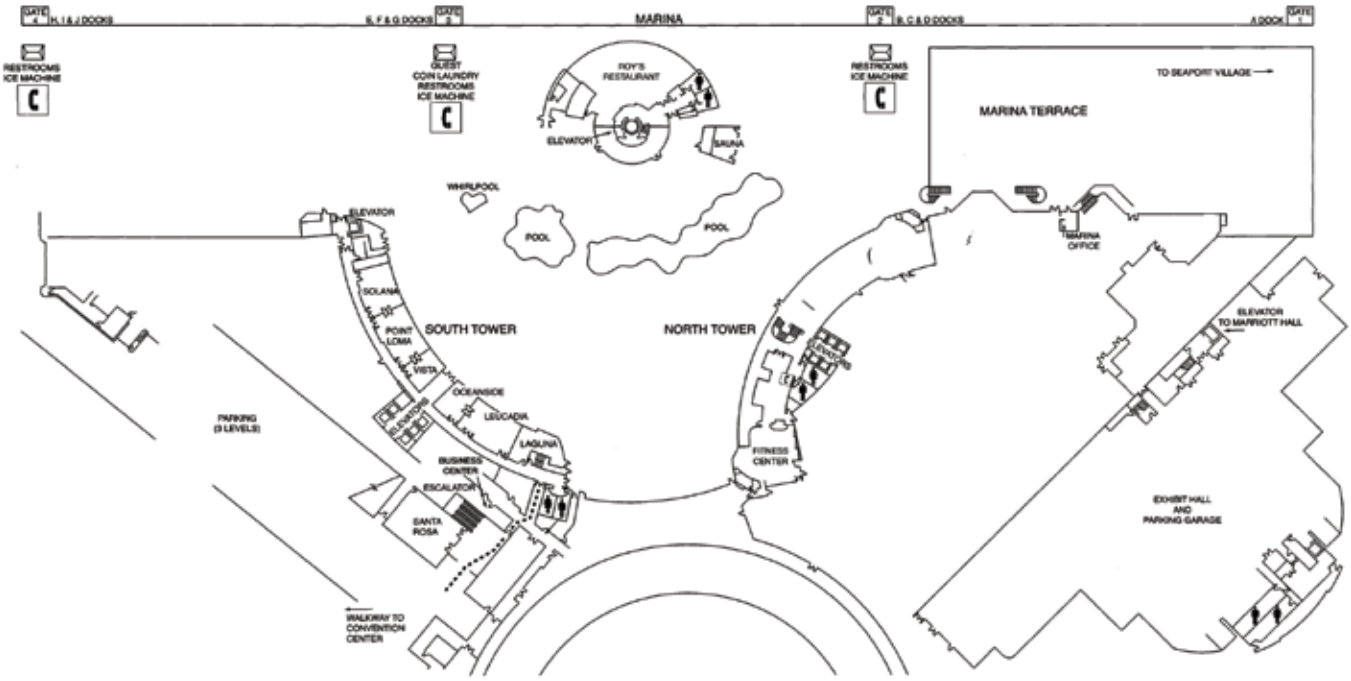


Marriott Marquis & Marina

South Tower

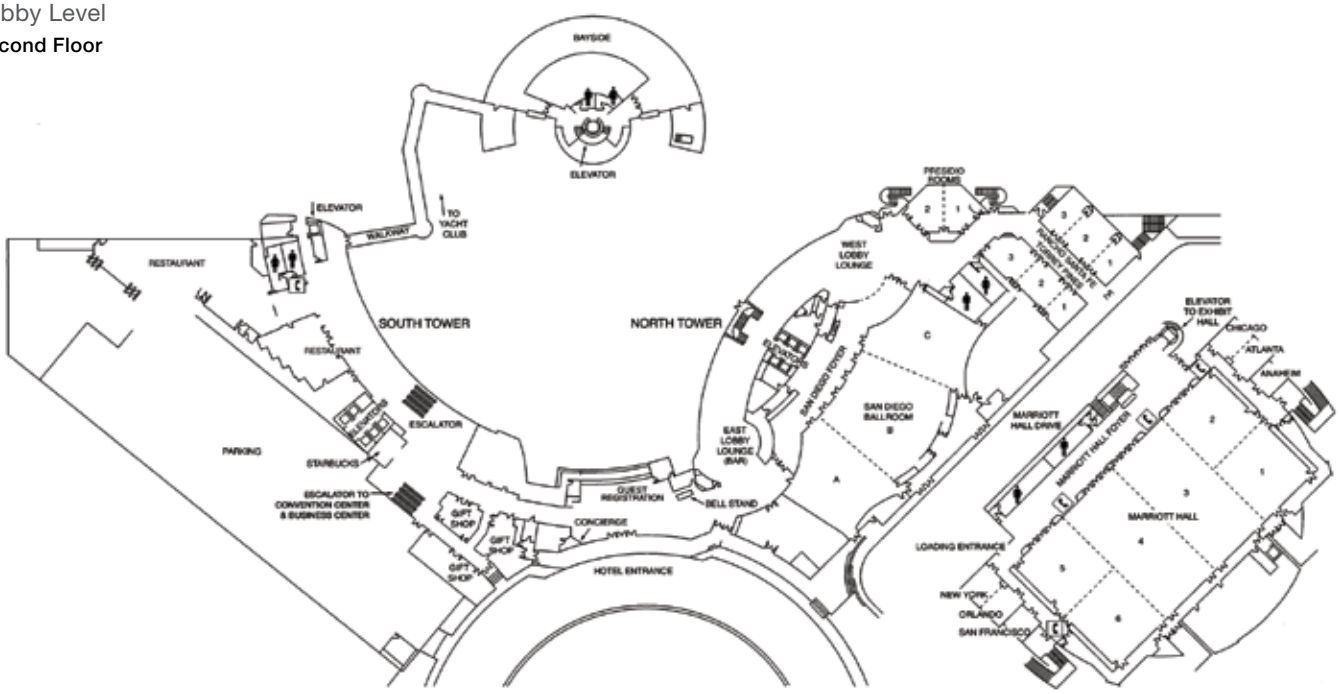
North Tower

Level 1



Lobby Level

Second Floor



Hotel Floor Plans

Marriott Marquis & Marina (continued)

South Tower

1st Floor
Laguna
Leucadia
Oceanside
Point Loma
Santa Rosa
Solana
Vista

2nd Floor
Bayside

3rd Floor
Balboa
Cardiff
Carlsbad
Del Mar
Encinitas
Marina Ballroom D–G
Miramar
Mission Hills
Palomar

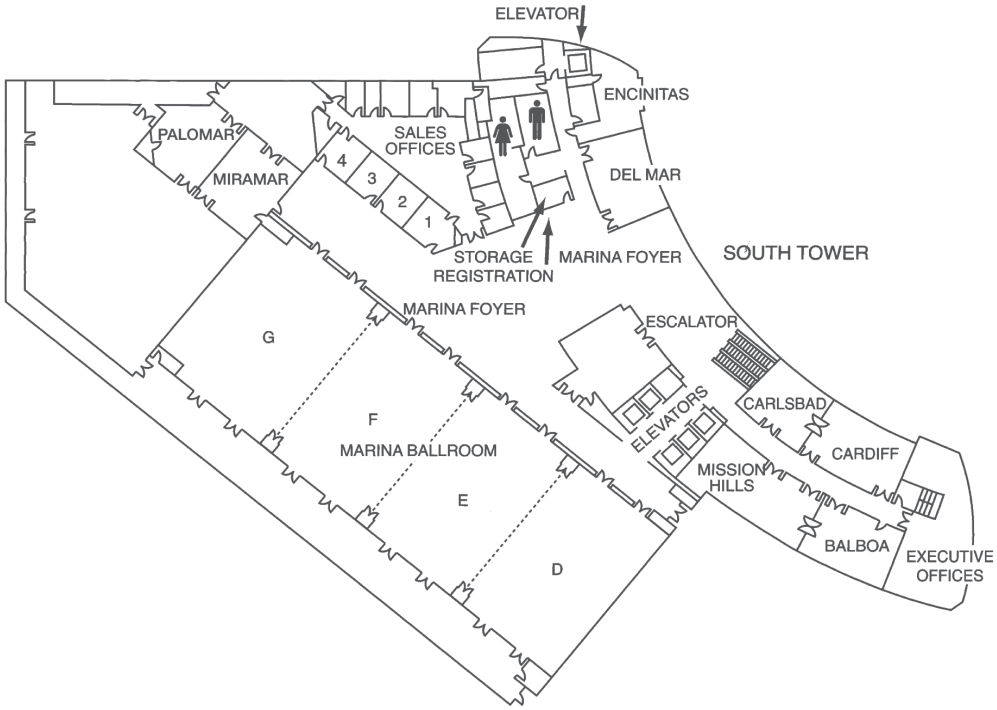
4th Floor
Catalina
Coronado
Dana Point
La Costa
La Jolla
La Mesa
Malibu
Newport Beach

North Tower

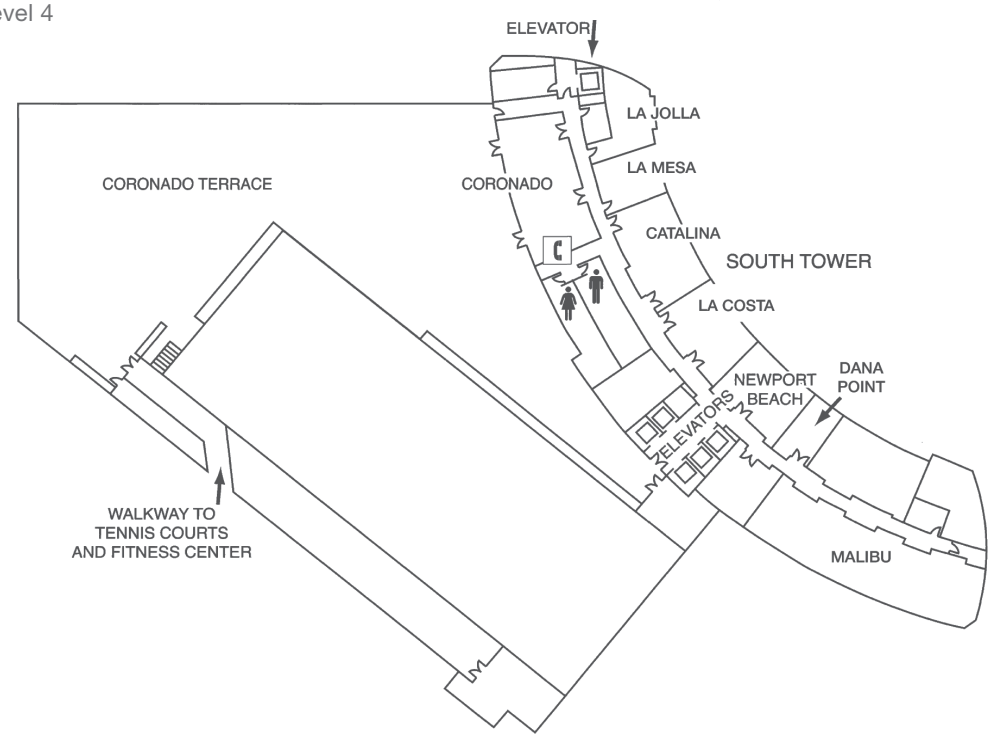
Lobby Level
Presidio 1–2
Rancho Santa Fe 1–3
San Diego Ballrooms A–C
Torrey Pines 1–3

Marriott Hall
Anaheim
Atlanta
Chicago
Marriott Hall 1–6
New York
Orlando
San Francisco

Level 3

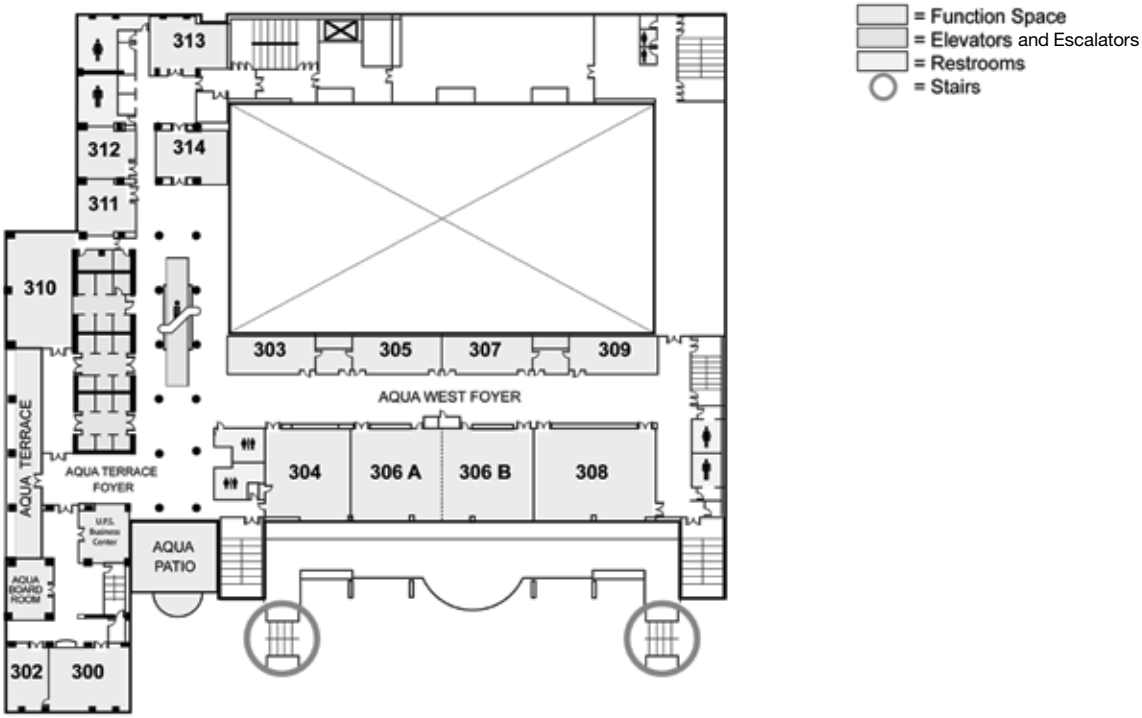


Level 4

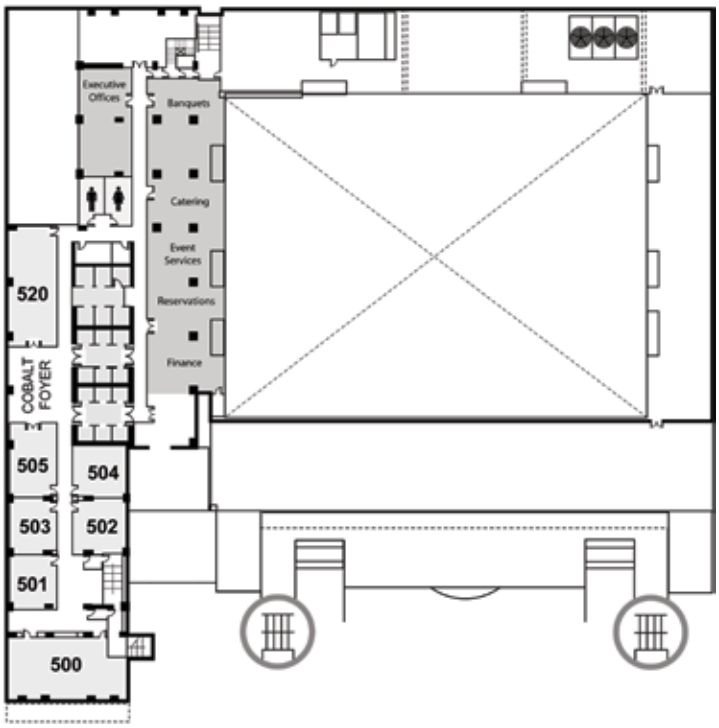


Hilton San Diego Bayfront

Aqua Level



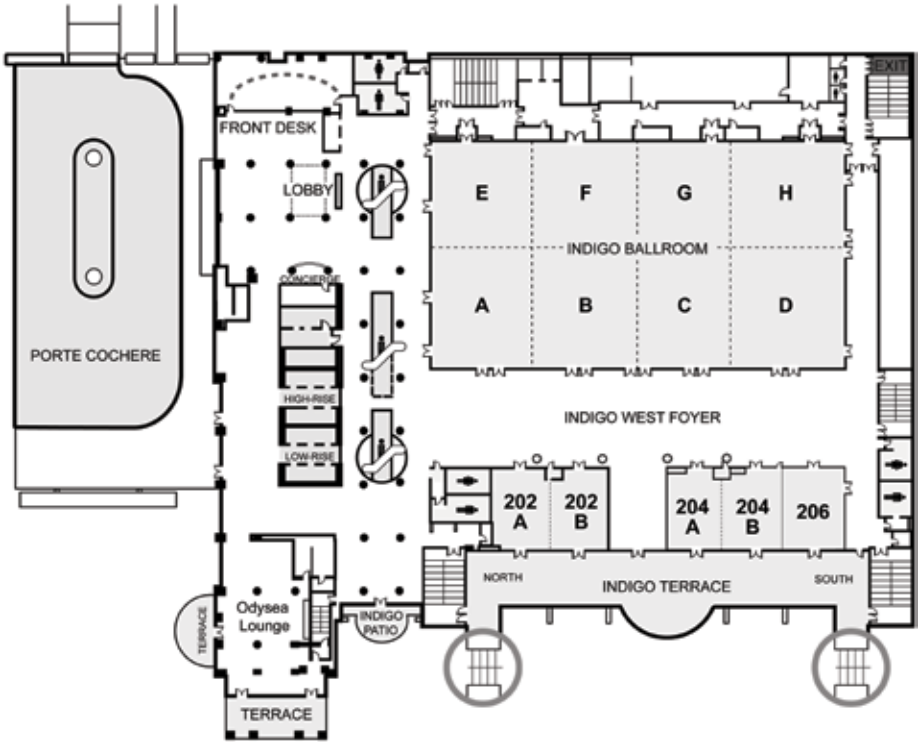
Cobalt Level



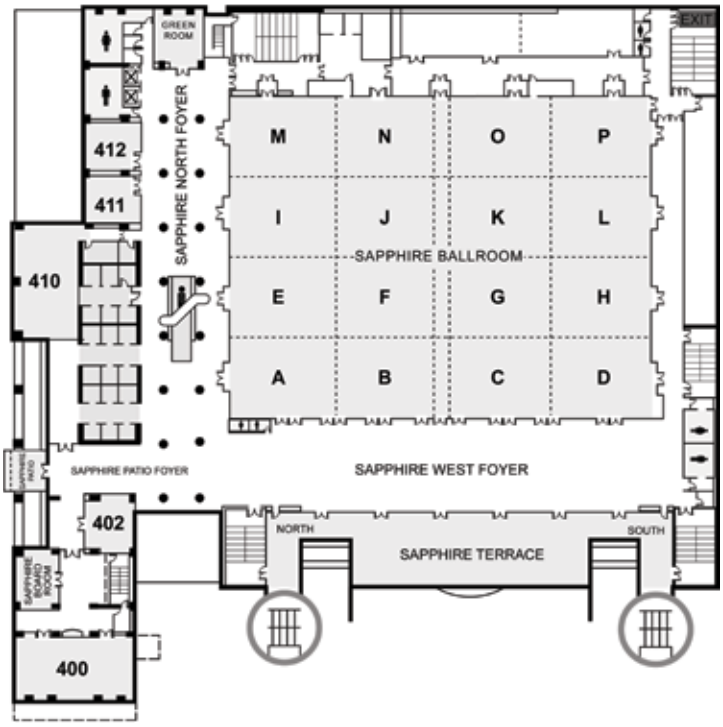
Hotel Floor Plans

Hilton Dan Diego Bayfront

Indigo Level



Sapphire Level



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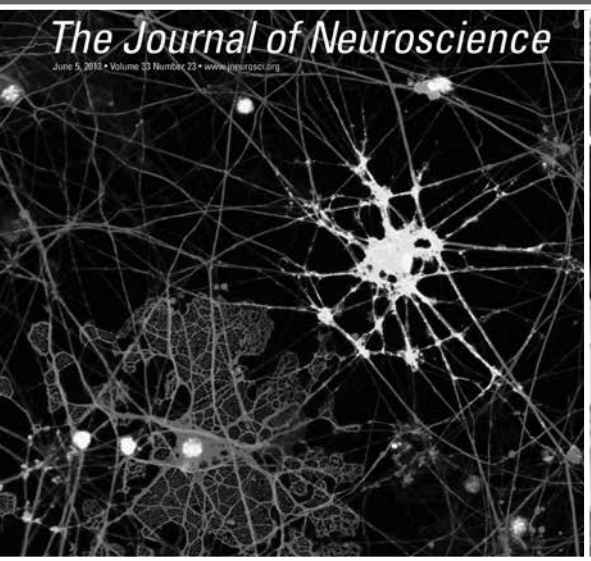
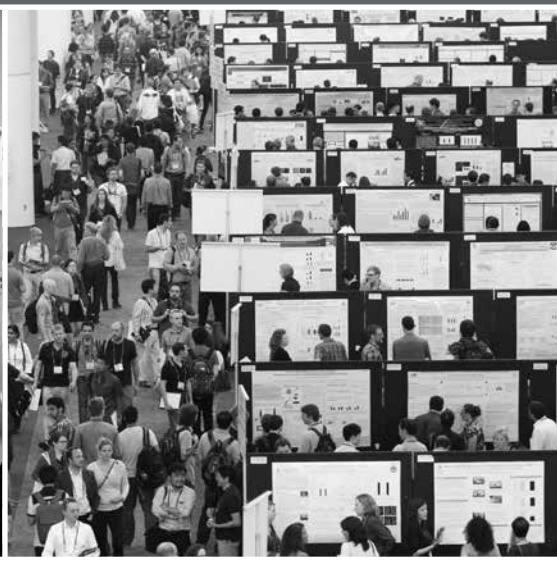
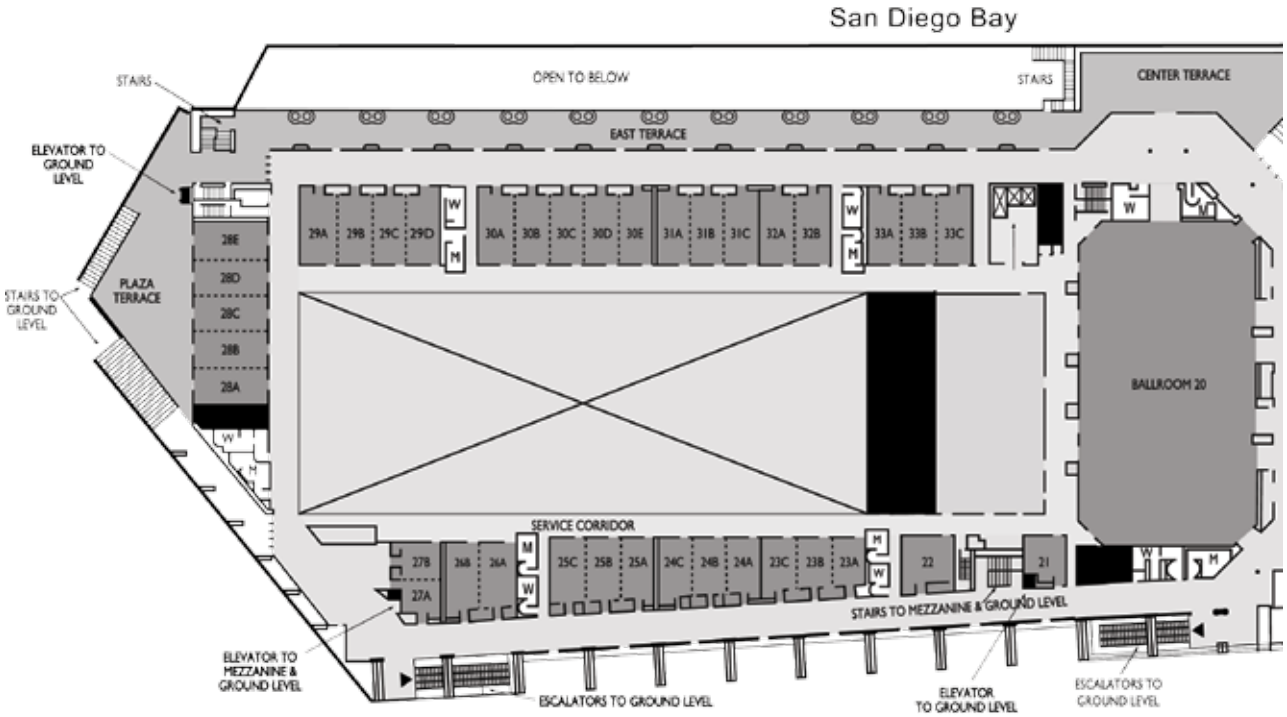




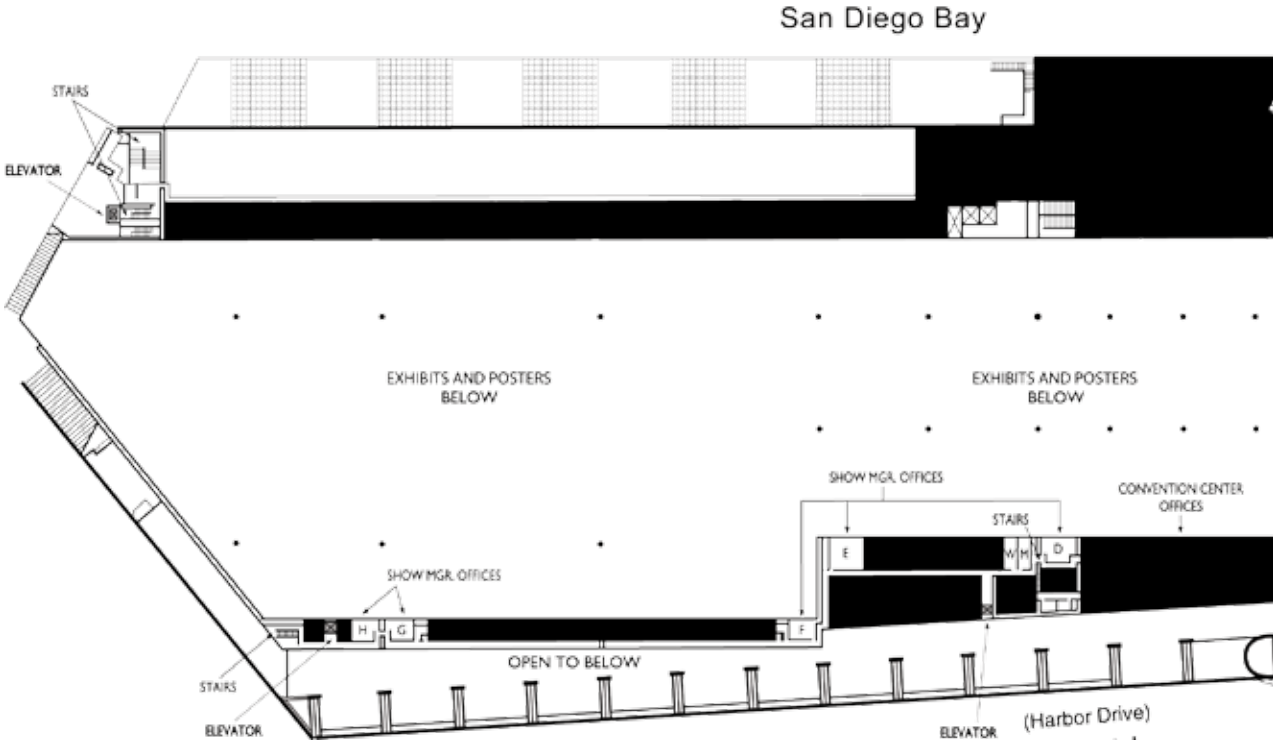
Visit the SfN Booth #2013 in the Exhibit Hall —
first 50 to renew their membership for 2014 receive a free gift

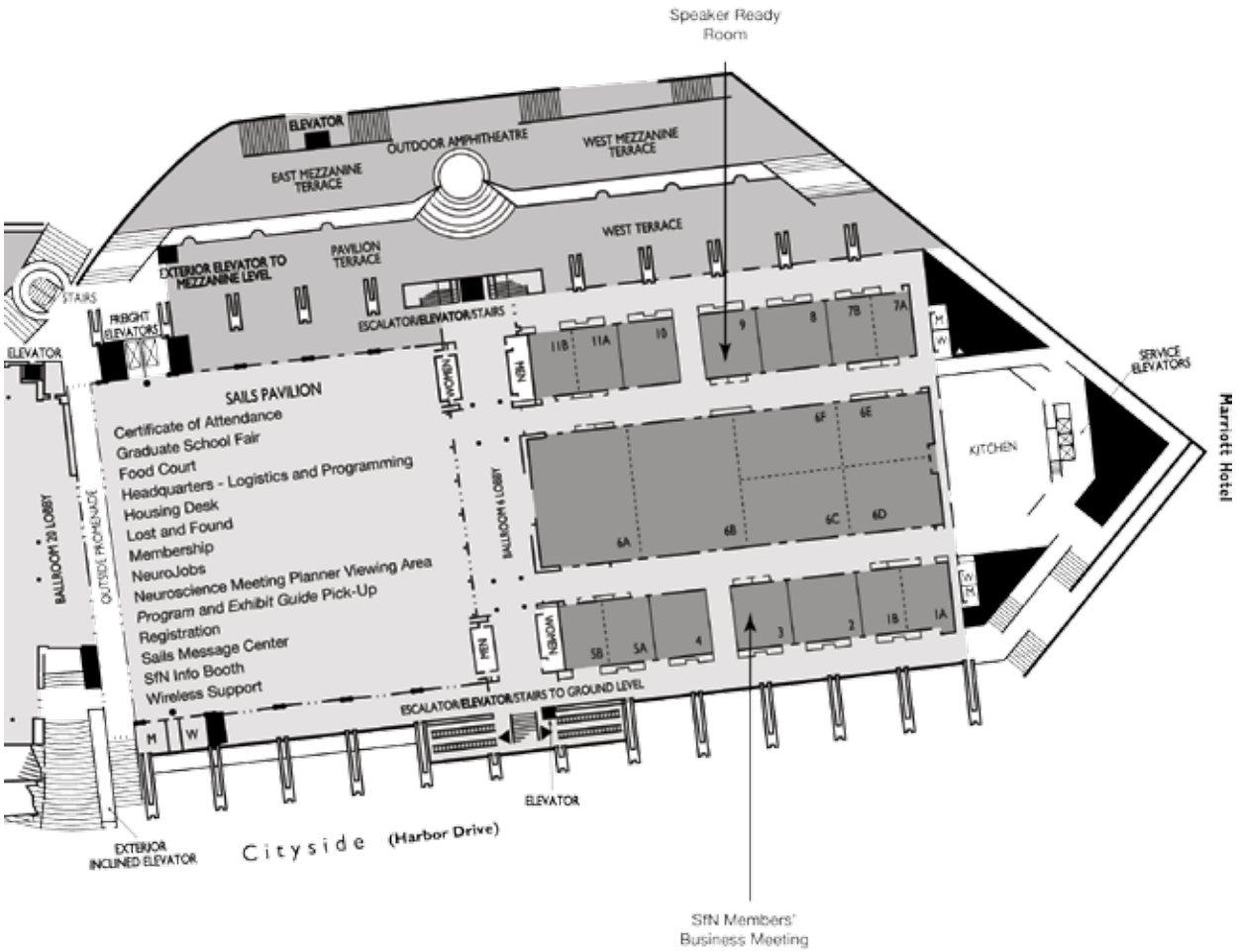
Convention Center Floor Plans

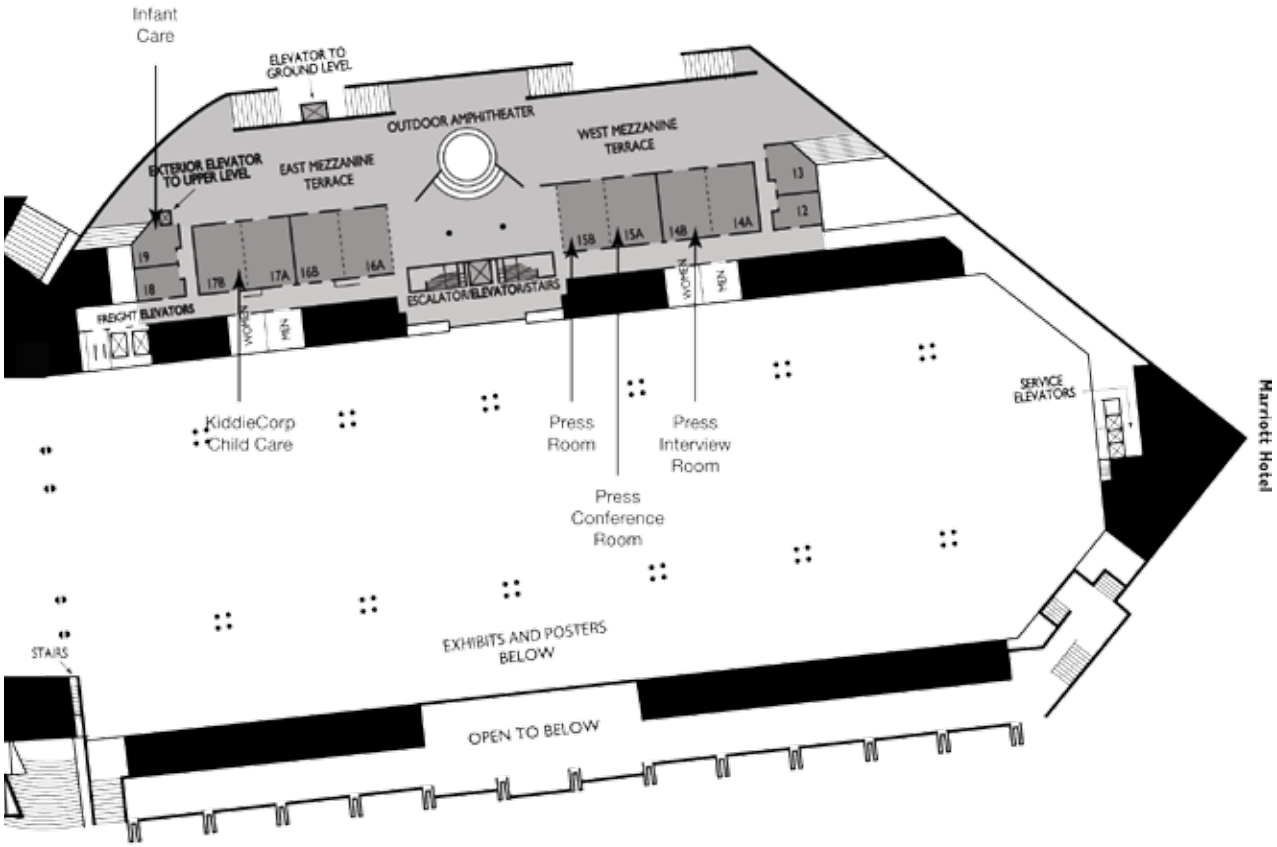
San Diego Convention Center Floor Plan, Upper Level



San Diego Convention Center Floor Plan, Mezzanine Level




Speaker Ready Room
ELEVATOR
OUTDOOR AMPHITHEATRE
WEST MEZZANINE TERRACE
EAST MEZZANINE TERRACE
WEST TERRACE
PAVILION TERRACE
EXTERIOR ELEVATOR TO MEZZANINE LEVEL
STAIRS
FREIGHT ELEVATORS
ELEVATOR
ESCALATOR/ELEVATOR/STAIRS
SAILS PAVILION
Certificate of Attendance
Graduate School Fair
Food Court
Headquarters - Logistics and Programming
Housing Desk
Lost and Found
Membership
NeuroJobs
Neuroscience Meeting Planner Viewing Area
Program and Exhibit Guide Pick-Up
Registration
Sails Message Center
SfN Info Booth
Wireless Support
BALLROOM 20 LOBBY
OUTSIDE PROMENADE
BALLROOM 6 LOBBY
WOMEN
MEN
KITCHEN
SERVICE ELEVATORS
Marriott Hotel
ESCALATOR/ELEVATOR/STAIRS TO GROUND LEVEL
ELEVATOR
EXTERIOR INCLINED ELEVATOR
Cityside (Harbor Drive)
SfN Members' Business Meeting


Infant Care
ELEVATOR TO GROUND LEVEL
OUTDOOR AMPHITHEATER
WEST MEZZANINE TERRACE
EXTERIOR ELEVATOR TO UPPER LEVEL
EAST MEZZANINE TERRACE
FREIGHT ELEVATORS
ESCALATOR/ELEVATOR/STAIRS
WOMEN
MEN
SERVICE ELEVATORS
Marriott Hotel
KiddieCorp Child Care
Press Room
Press Interview Room
Press Conference Room
EXHIBITS AND POSTERS BELOW
STAIRS
OPEN TO BELOW

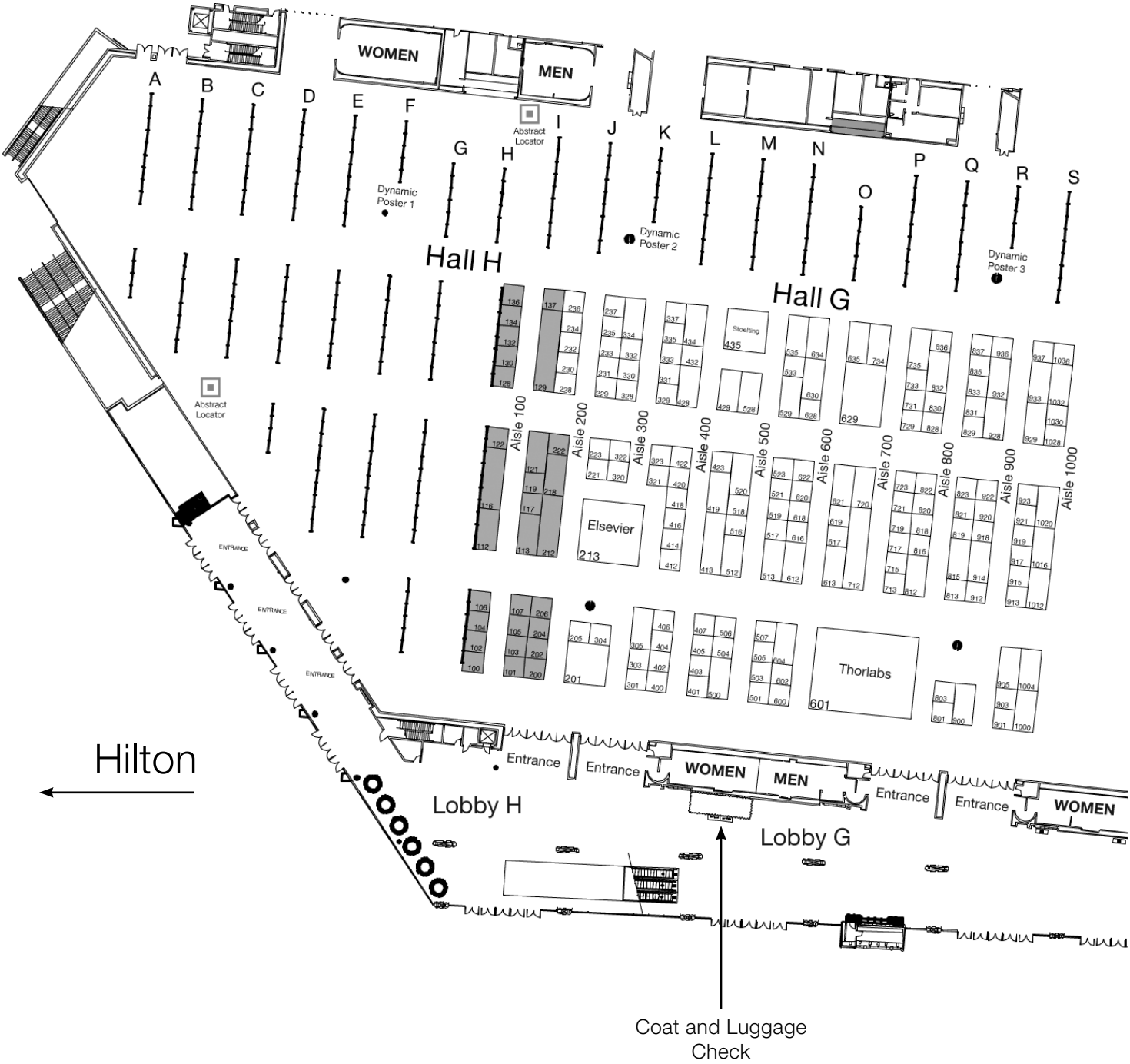
Convention Center Floor Plans

San Diego Convention Center Floor Plan, Exhibit Halls

San Diego Convention Center: Halls B-H
Meeting Dates: Nov. 9–13
Exhibit Dates: Nov. 10–13

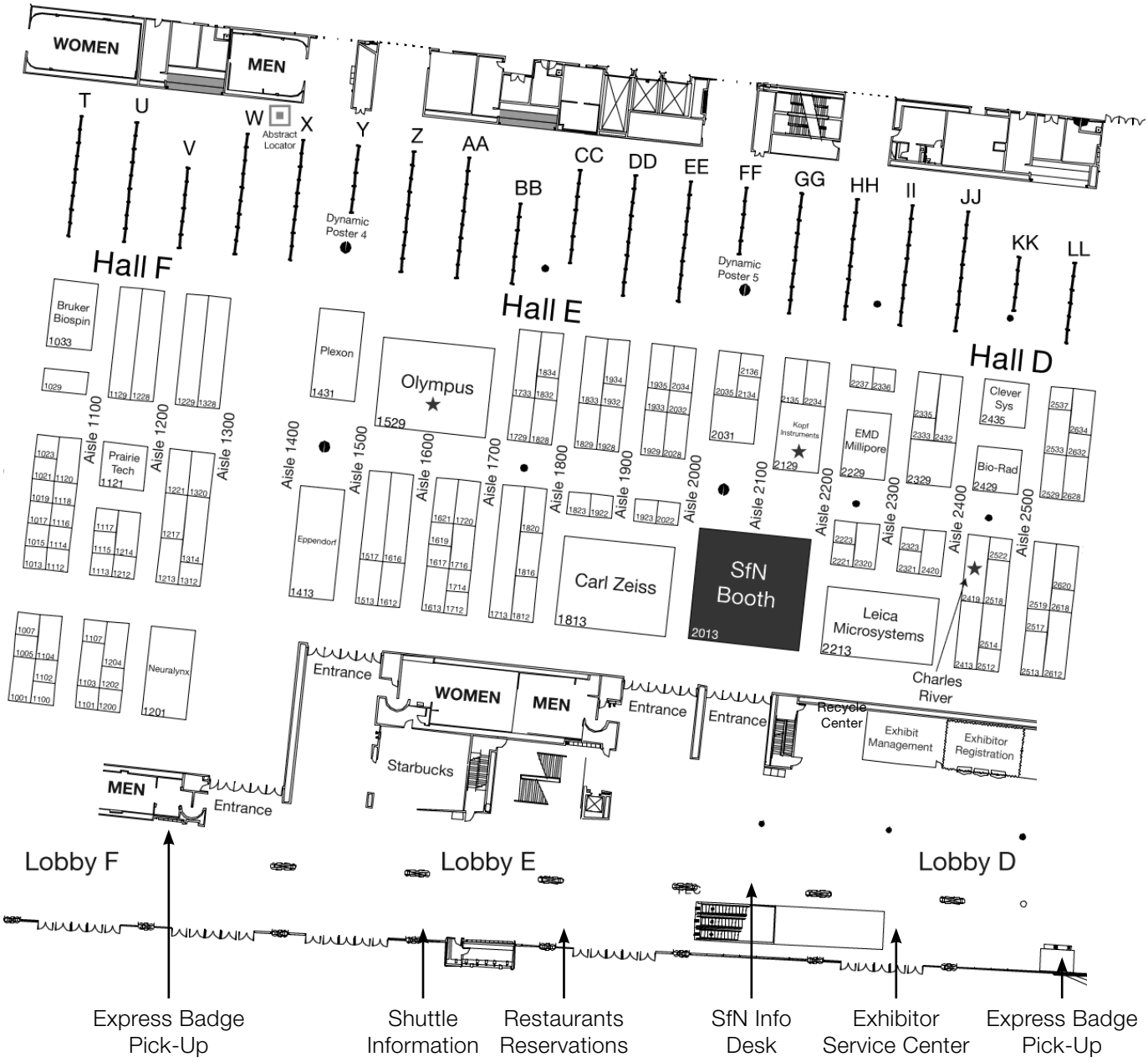
Hall entrances open at noon on Saturday, Nov. 9 and at 7 a.m. on Sunday, Nov. 10 to Wednesday, Nov. 13 for poster presenter setup. Poster sessions are open for all attendees at 1 p.m. on Saturday, Nov. 9 and 8 a.m. Sunday, Nov. 10 to Wednesday, Nov. 13.

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



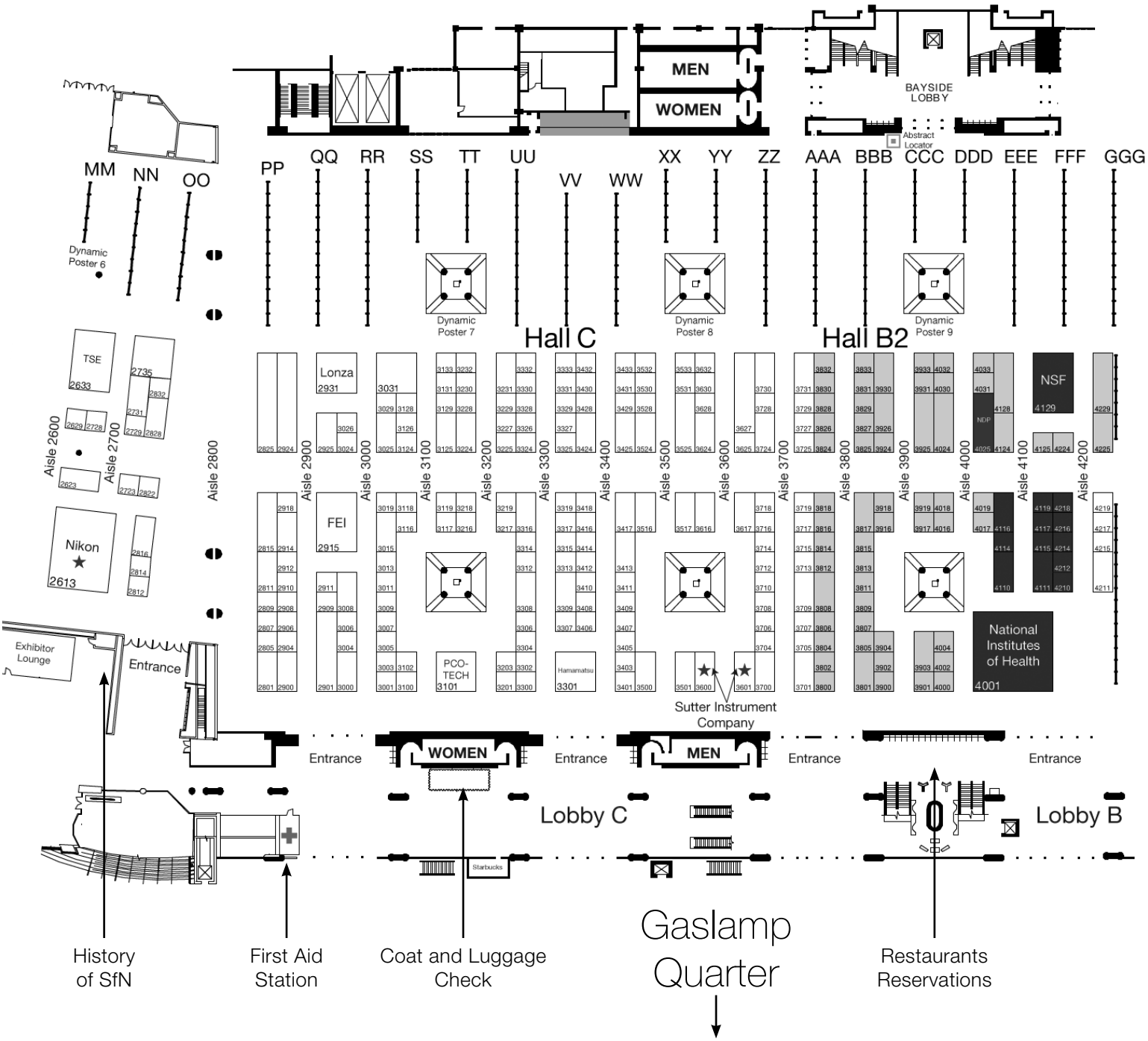
KEY

- ▣ Abstract Locators
- ■ Concession Areas
- ■ Institutions
- ■ Publishers
- ■ Nonprofits
- ★ Sustaining Associate Members



Convention Center Floor Plans

San Diego Convention Center Floor Plan, Exhibit Halls



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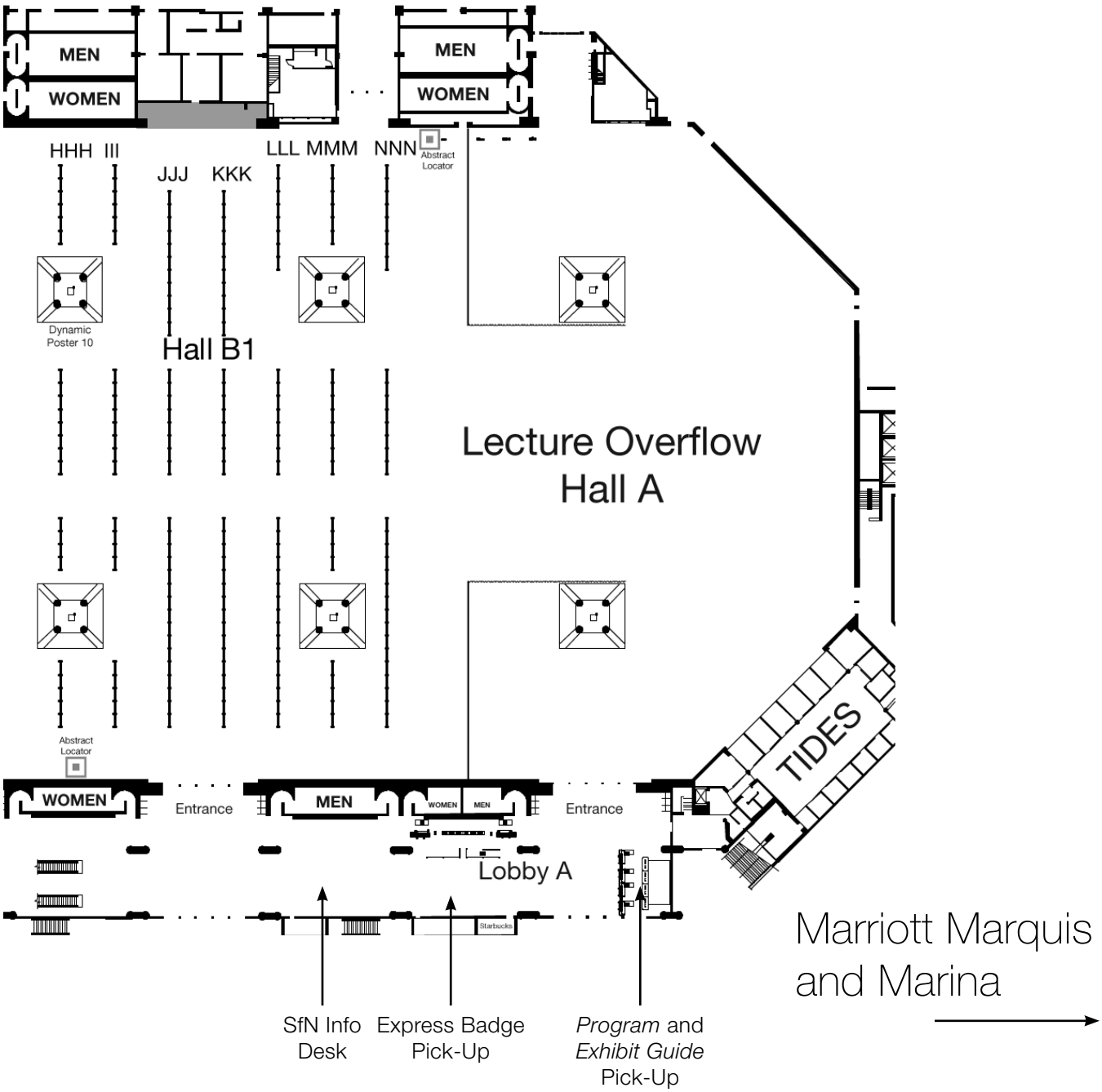
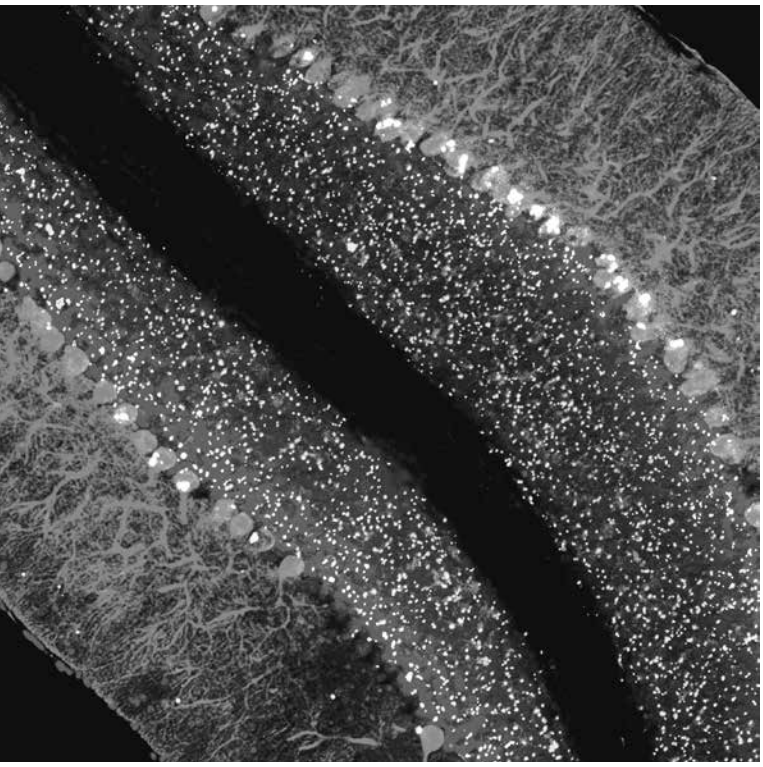


NEUROSCIENCE
2014

SEE YOU IN



WASHINGTON DC

November 15–19

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