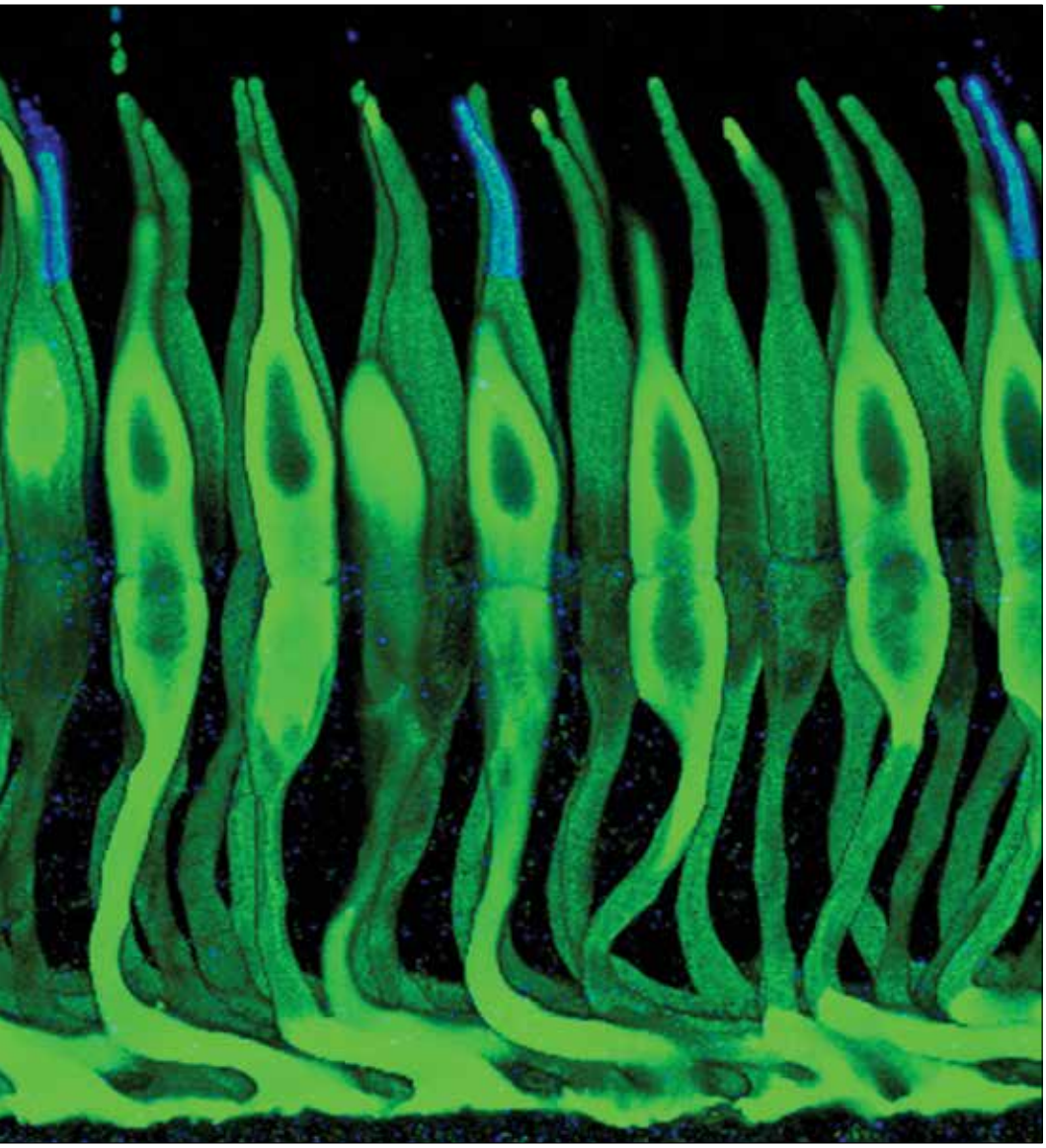
Monday

Scientific Session Listings 273–471



NEUROSCIENCE 2014

WASHINGTON, DC | November 15–19

SfN Society for Neuroscience

Information at a Glance

Important Phone Numbers

Annual Meeting Headquarters Office

Logistics & Programming
Walter E. Washington Convention Center:
Room 102
Logistics: (202) 249-4100
Programming: (202) 249-4105

Volunteer Leadership Lounge
Walter E. Washington Convention Center:
Salon F, (202) 249-4096

Annual Meeting Information Booths
Walter E. Washington Convention Center
Grand Lobby, (202) 249-4124
L Street Bridge, (202) 249-4125
L Street Concourse, (202) 249-4126

Press Office

Walter E. Washington Convention Center:
Room 202A, (202) 249-4130

Exhibit Management

Walter E. Washington Convention Center:
Show Office B, (202) 249-4080

First Aid and Hospital Numbers

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

George Washington University Hospital
900 23rd Street, NW
Washington, DC 20037
(202) 715-4000

Medics USA Urgent Care Services
1700 17th Street, NW, Suite A
Washington, DC 20008
(202) 483-4400

Key to Poster Floor by Themes

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

Theme

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

NOTE: Theme H Posters will be on display in Hall A beginning at 1 p.m. on Saturday, November 15, and will remain posted until 5 p.m., Sunday, November 16. One-hour presentations will occur either Saturday afternoon or Sunday morning.

Cover Image: Cones in the primate retina labeled with an antibody against cone arrestin. A few blue cones were double-labeled with an antibody against blue cone opsin.

Jennifer J. O'Brien, Xiaoming Chen, Peter R. MacLeish, John O'Brien, and Stephen C. Massey, 2012, *The Journal of Neuroscience*, 28: 32(13): 4675-4687

Monday Highlights

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

Special Lecture

Building a Synapse Through Nuclear Export of Large RNA Granules and Exosomes CME

Vivian Budnik, PhD
University of Massachusetts Medical School
8:30–9:40 a.m.
Walter E. Washington Convention Center: Hall D

Symposium

Attention, Reward, and Information Seeking CME

Chair: Jacqueline Gottlieb, PhD
Co-chair: Antonio Rangel, PhD
8:30–11 a.m.
Walter E. Washington Convention Center: Ballroom A

Symposium

Target Validation in Huntington's Disease: Advances Through the Development and Use of Animal Models CME

Chair: M. Flint Beal, MD
Co-chair: X. William Yang, MD, PhD
8:30–11 a.m.
Walter E. Washington Convention Center: 146AB

Symposium

The Effects of Hearing Loss on Neural Processing, Plasticity, and Aging CME

Chair: Arthur Wingfield, PhD
Co-chair: Jonathan Peelle, PhD
8:30–11 a.m.
Walter E. Washington Convention Center: Ballroom C

Minisymposium

In vivo Reprogramming for Brain Repair CME

Chair: Gong Chen, PhD
Co-chair: Chun-Li Zhang, PhD
8:30–11 a.m.
Walter E. Washington Convention Center: Ballroom B

Minisymposium

New Roles for the External Globus Pallidus in Basal Ganglia Circuits and Behavior CME

Chair: Aryn Gittis, PhD
8:30–11 a.m.
Walter E. Washington Convention Center: 151AB

Minisymposium

The Role of Parvalbumin Neurons in Visual Processing and Plasticity CME

Chair: Aaron W. McGee, PhD
Co-chair: Sandra Kuhlman, PhD
8:30–11 a.m.
Walter E. Washington Convention Center: 145B

How to Effectively Communicate Your Science to the Public

9–11 a.m.
Walter E. Washington Convention Center: 207B

Teaching Neuroscience: Online Learning

9–11 a.m.
Walter E. Washington Convention Center: 207A

Special Lecture

Genes and Environment Interaction During Development: Redox Imbalance in Schizophrenia CME

Kim Quang Do, PhD
Center for Psychiatric Neuroscience, Lausanne University Hospital, Switzerland
10–11:10 a.m.
Walter E. Washington Convention Center: Hall D

Special Lecture

The Brain Is Needed to Cure Spinal Cord Injury CME

Tadashi Isa, MD, PhD
National Institute for Physiological Sciences, Japan
11:30 a.m.–12:40 p.m.
Walter E. Washington Convention Center: Hall D
Support contributed by: Lilly USA, LLC

Graduate School Fair

noon–2 p.m.
Walter E. Washington Convention Center: Hall E

Symposium

Exercise, Energy Intake, and the Brain CME

Chair: Mark P. Mattson, PhD
Co-chair: Henriette van Praag, PhD
1:30–4 p.m.
Walter E. Washington Convention Center: Ballroom B

Plan to Attend

Tuesday, Nov. 18

Special Lecture

Learning and Relearning Movement CME

Amy J. Bastian, PhD
Kennedy Krieger Institute,
Johns Hopkins University School of Medicine
8:30–9:40 a.m.
Walter E. Washington Convention Center: Hall D

Special Lecture

Persistent Cocaine-Induced Plasticity and Synaptic Targets for Its Reversal CME

Marina E. Wolf, PhD
Rosalind Franklin University of Medicine and Science
10–11:10 a.m.
Walter E. Washington Convention Center: Hall D

Special Lecture

How Do You Feel? The Role of Mechanically Activated Ion Channels in Touch, Pain, Hearing, and Beyond CME

Ardem Patapoutian, PhD
Scripps Research Institute,
Howard Hughes Medical Institute
11:30 a.m.–12:40 p.m.
Walter E. Washington Convention Center: Hall D

Special Lecture

Generating and Shaping Novel Action Repertoires CME

Rui M. Costa, DVM, PhD
Champalimaud Foundation, Portugal
1-2:10 p.m.
Walter E. Washington Convention Center: Hall D

Fred Kavli History of Neuroscience Lecture

The Messengers of the Mind

Floyd E. Bloom, MD
The Scripps Research Institute
2:30–3:40 p.m.
Walter E. Washington Convention Center: Hall D
Support contributed by: The Kavli Foundation

Presidential Special Lecture

Stem Cells in the Brain: Glial Identity and Niches CME

Fiona Doetsch, PhD
Columbia University
5:15–6:25 p.m.
Walter E. Washington Convention Center: Hall D
Support contributed by: Janssen Research and Development, LLC

Monday Highlights

Symposium

Repairing and Piloting Neuronal Networks to Control Epilepsy CME

Chair: Christophe Bernard, PhD

Co-chair: Ivan Soltesz, PhD

1:30–4 p.m.

Walter E. Washington Convention Center: Ballroom A

Minisymposium

Characterizing the Roles of Fronto-Cingulo-Subcortical Circuits in Pain, Emotion, and Cognition CME

Chair: David Seminowicz, PhD

1:30–4 p.m.

Walter E. Washington Convention Center: 145B

Minisymposium

Endocannabinoids and Related Mediators in Brain Function CME

Chair: Miriam Melis, PhD

Co-chair: Vincenzo Di Marzo, PhD

1:30–4 p.m.

Walter E. Washington Convention Center: Ballroom C

Minisymposium

From Objects to Actions: Dynamics in Parietal and Frontal Cortex CME

Chair: Patrizia Fattori, PhD

Co-chair: Hans Scherberger, MD

1:30–4 p.m.

Walter E. Washington Convention Center: 146AB

Minisymposium

Understanding Mechanisms and Functions of Cortical Rhythms by Selective Interventions CME

Chair: Cyriel M.A. Pennartz, PhD

1:30–4 p.m.

Walter E. Washington Convention Center: 151AB

Albert and Ellen Grass Lecture

Cellular and Molecular Mechanisms of Explicit Learning in the Hippocampus CME

Roger A. Nicoll, MD

University of California, San Francisco

3:15–4:25 p.m.

Walter E. Washington Convention Center: Hall D

Support contributed by: The Grass Foundation

Presidential Special Lecture

The First Steps in Vision: Computation and Repair CME

Botond Roska, MD, PhD

Friedrich Miescher Institute for Biomedical Research, University of Basel, Switzerland

5:15–6:25 p.m.

Walter E. Washington Convention Center: Hall D

Support contributed by: Amgen

SfN-Sponsored Socials

6:45–8:45 p.m.

Renaissance Washington, DC Downtown Meeting Rooms

See page xiii

Chronological List of Monday 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 Walter E. Washington Convention Center, Halls A–C. All lecture, symposium, minisymposium, and nanosymposium rooms are in the Walter E. Washington Convention Center.
Note: Theme H Posters will be on display in Hall A beginning at 1 p.m. on Saturday, Nov. 15, and will remain posted until 5 p.m. on Sunday, Nov. 16. One-hour presentation times will occur either Saturday afternoon or Sunday morning.

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
FEATURED PROGRAMS							
273	A	Building a Synapse Through Nuclear Export of Large RNA Granules and Exosomes	Special Lecture		Hall D	8:30–9:40 a.m.	1.25
274	F	Attention, Reward, and Information Seeking	Symposium		Ballroom A	8:30–11 a.m.	2.5
275	C	Target Validation in Huntington's Disease: Advances Through the Development and Use of Animal Models	Symposium		Room 146AB	8:30–11 a.m.	2.5
276	D	The Effects of Hearing Loss on Neural Processing, Plasticity, and Aging	Symposium		Ballroom C	8:30–11 a.m.	2.5
277	G	*In vivo* Reprogramming for Brain Repair	Minisymposium		Ballroom B	8:30–11 a.m.	2.5
278	D	New Roles for the External Globus Pallidus in Basal Ganglia Circuits and Behavior	Minisymposium		Room 151AB	8:30–11 a.m.	2.5
279	D	The Role of Parvalbumin Neurons in Visual Processing and Plasticity	Minisymposium		Room 145B	8:30–11 a.m.	2.5
280	C	Genes and Environment Interaction During Development: Redox Imbalance in Schizophrenia	Special Lecture		Hall D	10–11:10 a.m.	1.25
281	D	The Brain Is Needed to Cure Spinal Cord Injury	Special Lecture		Hall D	11:30 a.m.–12:40 p.m.	1.25
374	E	Exercise, Energy Intake, and the Brain	Symposium		Ballroom B	1:30–4 p.m.	2.5
375	C	Repairing and Piloting Neuronal Networks to Control Epilepsy	Symposium		Ballroom A	1:30–4 p.m.	2.5
376	F	Characterizing the Roles of Fronto-Cingulo-Subcortical Circuits in Pain, Emotion, and Cognition	Minisymposium		Room 145B	1:30–4 p.m.	2.5
377	C	Endocannabinoids and Related Mediators in Brain Function	Minisymposium		Ballroom C	1:30–4 p.m.	2.5
378	D	From Objects to Actions: Dynamics in Parietal and Frontal Cortex	Minisymposium		Room 146AB	1:30–4 p.m.	2.5
379	F	Understanding Mechanisms and Functions of Cortical Rhythms by Selective Interventions	Minisymposium		Room 151AB	1:30–4 p.m.	2.5
380		Cellular and Molecular Mechanisms of Explicit Learning in the Hippocampus	Albert and Ellen Grass Lecture		Hall D	3:15–4:25 p.m.	1.25
381		The First Steps in Vision: Computation and Repair	Presidential Special Lecture		Hall D	5:15–6:25 p.m.	1.25
NANOSYMPOSIA (8 A.M.–NOON)							
282	C	Parkinson's Disease: LRRK2	Nanosymposium		Room 147A	8–10:45 a.m.	
283	C	Aging Brain and Cognition	Nanosymposium		Room 152B	8–11:30 a.m.	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
284	C	Ischemia: Cellular Mechanisms and Neuroprotection I	Nanosymposium		Room 146C	8–10:30 a.m.	
286	C	Spinal Cord Injury: Therapeutic Strategies	Nanosymposium		Room 152A	8–11:30 a.m.	
287	C	Mood Disorders: Novel Therapeutic Mechanisms	Nanosymposium		Room 140A	8–11:15 a.m.	
288	D	Eye Movements and Perception	Nanosymposium		Room 144A	8–11:15 a.m.	
289	D	The Cells and Molecules of Touch, Itch, and Thermoreception	Nanosymposium		Room 143A	8–11 a.m.	
290	E	Neural Mechanisms of Energy Balance Regulation and Obesity	Nanosymposium		Room 147B	8–11:15 a.m.	
291	E	Sleep and Memory	Nanosymposium		Room 206	8–10:45 a.m.	
292	F	Reward: Physiology and Connectivity	Nanosymposium		Room 150B	8–10:30 a.m.	
293	F	Extended Amygdala Circuits and Behavior	Nanosymposium		Room 150A	8–10:30 a.m.	
POSTERS (8 A.M.–NOON)							
294	A	Neurogenesis	Poster	A1–A21	Halls A–C	8 a.m.–noon	
295	A	Transplantation	Poster	A22–A38	Halls A–C	8 a.m.–noon	
296	A	Intrinsic Mechanisms of PNS Regeneration	Poster	A39–A52	Halls A–C	8 a.m.–noon	
297	B	GABAA Receptors in Circuitry	Poster	A53–A65	Halls A–C	8 a.m.–noon	
298	B	Sodium Channel Structure Function	Poster	A66–B24	Halls A–C	8 a.m.–noon	
299	B	Ion Channels and Disease States II	Poster	B25–B55	Halls A–C	8 a.m.–noon	
300	B	Synaptic Transmission: Modulation I	Poster	B56–C7	Halls A–C	8 a.m.–noon	
301	B	Synaptic Transmission: Modulation II	Poster	C8–C22	Halls A–C	8 a.m.–noon	
302	B	Synaptic Plasticity	Poster	C23–C36	Halls A–C	8 a.m.–noon	
303	B	Oscillations: EEG	Poster	C37–C59	Halls A–C	8 a.m.–noon	
304	B	Dendritic Excitability and Synaptic Integration	Poster	C60–C72	Halls A–C	8 a.m.–noon	
305	B	Astroglial Homeostasis and Function	Poster	D1–D32	Halls A–C	8 a.m.–noon	
306	B	Oligodendrocytes: Cell Biology and Signaling II	Poster	D33–D46	Halls A–C	8 a.m.–noon	
307	C	Alzheimer's Disease: APP Abeta Tau Interactions I	Poster	D47–D72	Halls A–C	8 a.m.–noon	
308	C	Microglia and Inflammatory Mediators in Neurodegeneration	Poster	E1–G6	Halls A–C	8 a.m.–noon	
309	C	Parkinson's Disease: Human Studies	Poster	G7–I12	Halls A–C	8 a.m.–noon	
310	C	Animal Studies on the Aging Brain	Poster	J1–L9	Halls A–C	8 a.m.–noon	
311	C	Animal Models of Epilepsy I	Poster	L10–N12	Halls A–C	8 a.m.–noon	
312	C	Animal Models of Pediatric Epilepsy	Poster	O1–P1	Halls A–C	8 a.m.–noon	
313	C	Anticonvulsant Therapies for Seizures	Poster	P2–R1	Halls A–C	8 a.m.–noon	
314	C	Non-Pharmacological Treatments for Seizures	Poster	R2–T2	Halls A–C	8 a.m.–noon	
315	C	Spinal Cord Injury: Therapeutic Strategies I	Poster	T3–U19	Halls A–C	8 a.m.–noon	
316	C	Neurodegeneration II	Poster	U20–U35	Halls A–C	8 a.m.–noon	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
317	C	Neuroinflammation and Neurological Diseases	Poster	U36–V13	Halls A–C	8 a.m.–noon	
318	C	Neuro-Oncology I	Poster	V14–W8	Halls A–C	8 a.m.–noon	
319	C	Neuro-Oncology II	Poster	W9–W26	Halls A–C	8 a.m.–noon	
320	C	Psychosis: Brain Imaging and EEG Studies	Poster	W27–X12	Halls A–C	8 a.m.–noon	
321	C	Mood Disorders: Novel Therapeutic Mechanisms	Poster	X13–Y17	Halls A–C	8 a.m.–noon	
322	C	Cellular and Molecular Basis for Mood Disorders	Poster	Y18–Y27	Halls A–C	8 a.m.–noon	
323	C	Anxiety and Anxiolytic Mechanisms	Poster	Y28–Z5	Halls A–C	8 a.m.–noon	
324	C	Alcohol: Neural Mechanism and Behavior II	Poster	Z6–Z35	Halls A–C	8 a.m.–noon	
325	C	Cocaine: Cellular and Synaptic Studies	Poster	Z36–AA15	Halls A–C	8 a.m.–noon	
326	C	Cocaine: Neural Mechanisms II	Poster	AA16–BB10	Halls A–C	8 a.m.–noon	
327	C	Opiate Addiction	Poster	BB11–CC1	Halls A–C	8 a.m.–noon	
328	D	Auditory System: Cortical Processing in Animals and Humans	Poster	CC2–CC12	Halls A–C	8 a.m.–noon	
329	D	Auditory Subcortical and Neuromodulatory Processes	Poster	CC13–CC28	Halls A–C	8 a.m.–noon	
330	D	Auditory System: Adaptation, Learning, and Memory	Poster	CC29–DD7	Halls A–C	8 a.m.–noon	
331	D	Multisensory and Temporal Factors in Cross-Modal Processing	Poster	DD8–DD25	Halls A–C	8 a.m.–noon	
332	D	Extrastriate Cortex: Organization	Poster	DD26–EE10	Halls A–C	8 a.m.–noon	
333	D	Binocular Vision	Poster	EE11–EE26	Halls A–C	8 a.m.–noon	
334	D	Sensorimotor Transformation: Physiology and Imaging	Poster	EE27–FF13	Halls A–C	8 a.m.–noon	
335	D	Hair Cells, End-Organ, and Nerve	Poster	FF14–FF23	Halls A–C	8 a.m.–noon	
336	D	Pain Transduction: TRP Channels	Poster	FF24–GG14	Halls A–C	8 a.m.–noon	
337	D	Descending Modulation	Poster	GG15–GG34	Halls A–C	8 a.m.–noon	
338	D	Musculoskeletal Pain	Poster	GG35–HH8	Halls A–C	8 a.m.–noon	
339	D	Somatosensory Stimulus Response Features	Poster	HH9–HH24	Halls A–C	8 a.m.–noon	
340	D	Somatosensory: Functional Studies	Poster	HH25–II10	Halls A–C	8 a.m.–noon	
341	D	Cerebellum: Plasticity and Climbing Fibers	Poster	II11–II23	Halls A–C	8 a.m.–noon	
342	D	Basal Ganglia: Cellular Physiology	Poster	II24–JJ10	Halls A–C	8 a.m.–noon	
343	D	Finger and Grasp Control: Normal Human Behavior	Poster	JJ11–JJ30	Halls A–C	8 a.m.–noon	
344	E	Parental Behavior	Poster	JJ31–KK15	Halls A–C	8 a.m.–noon	
345	E	Stress: Neuroimmune Aspects	Poster	KK16–LL1	Halls A–C	8 a.m.–noon	
346	E	Sex Differences in Stress Responses	Poster	LL2–LL13	Halls A–C	8 a.m.–noon	
347	E	Stress and Anxiety: Modulation	Poster	LL14–MM5	Halls A–C	8 a.m.–noon	
348	E	Stress and Aversive States	Poster	MM6–MM28	Halls A–C	8 a.m.–noon	
349	E	Stress and the Hippocampus	Poster	MM29–NN6	Halls A–C	8 a.m.–noon	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
350	E	Stress and Anxiety: Mechanisms	Poster	NN7-NN36	Halls A–C	8 a.m.–noon	
351	E	Psychosocial Stress	Poster	OO1-OO14	Halls A–C	8 a.m.–noon	
352	E	Brain Blood Flow	Poster	OO15-PP2	Halls A–C	8 a.m.–noon	
353	F	Perception and Imagery	Poster	PP3-QQ7	Halls A–C	8 a.m.–noon	
354	F	Human Long-Term Memory: Medial Temporal Lobe II	Poster	QQ8-RR5	Halls A–C	8 a.m.–noon	
355	F	Disorders of Attention	Poster	RR6-RR18	Halls A–C	8 a.m.–noon	
356	F	Language and Brain Dynamics	Poster	RR19-RR47	Halls A–C	8 a.m.–noon	
357	F	Human Social Cognition: Neural Mechanisms	Poster	RR48-SS13	Halls A–C	8 a.m.–noon	
358	F	Prefrontal Cortex I	Poster	SS14-SS42	Halls A–C	8 a.m.–noon	
359	F	Rodent Learning and Memory	Poster	SS43-SS59	Halls A–C	8 a.m.–noon	
360	F	Cortical and Hippocampal Circuits: Spatial Navigation II	Poster	SS60-TT16	Halls A–C	8 a.m.–noon	
361	F	Prefrontal and Striatal Systems I	Poster	TT17-TT40	Halls A–C	8 a.m.–noon	
362	F	Reward: Dopamine I	Poster	TT41-TT62	Halls A–C	8 a.m.–noon	
363	F	Decision-Making: Neurocircuitry	Poster	TT63-TT82	Halls A–C	8 a.m.–noon	
364	F	Reward I	Poster	TT83-UU20	Halls A–C	8 a.m.–noon	
365	F	Vocal Communication in Songbirds: Learning and Social Influences	Poster	UU21-UU41	Halls A–C	8 a.m.–noon	
366	G	Techniques for Monitoring Proteins in Neurons	Poster	UU42-UU65	Halls A–C	8 a.m.–noon	
367	G	Imaging	Poster	UU66-UU78	Halls A–C	8 a.m.–noon	
368	G	Imaging Advances: New Histology, Reagents, and Approaches	Poster	UU79-VV16	Halls A–C	8 a.m.–noon	
369	G	Electrophysiology Recording Tools and Techniques	Poster	VV17-VV28	Halls A–C	8 a.m.–noon	
370	G	TMS, tDCS, and Other Brain Stimulation Tools	Poster	VV29-VV46	Halls A–C	8 a.m.–noon	
371	G	Bioinformatics	Poster	VV47-VV64	Halls A–C	8 a.m.–noon	
372	G	Cellular Models	Poster	VV65-VV88	Halls A–C	8 a.m.–noon	
NANOSYMPOSIA (1–5 P.M.)							
382	A	Disease Modeling Using Pluripotent Stem Cells I	Nanosymposium		Room 156	1–4:30 p.m.	
383	B	Microglia	Nanosymposium		Room 144A	1–3:30 p.m.	
384	C	Synaptic Signaling and Neurotransmitter Deficits in Alzheimer's Disease	Nanosymposium		Room 150B	1–3:30 p.m.	
385	C	Neuroimaging in Alzheimer's Disease and Tauopathies	Nanosymposium		Room 152B	1–3 p.m.	
386	C	Neurodegeneration Mechanisms in Parkinson's Disease	Nanosymposium		Room 147A	1–4:45 p.m.	
387	C	Cocaine: New Findings on Neural Mechanisms	Nanosymposium		Room 140A	1–3 p.m.	
388	D	Neural Processing of Natural Sounds	Nanosymposium		Room 152A	1–3:15 p.m.	
389	D	Retinal Processing	Nanosymposium		Room 143A	1–3:15 p.m.	
390	D	Pain Imaging: From Neural Circuits to Perception	Nanosymposium		Room 147B	1–4 p.m.	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
391	E	Cellular Effects of Stress	Nanosymposium		Room 146C	1–3:45 p.m.	
392	E	Brain Wellness: Metabolism and Energetics	Nanosymposium		Room 206	1–4:30 p.m.	
393	G	Novel Electrode Technologies	Nanosymposium		Room 150A	1–4 p.m.	
POSTERS (1–5 P.M.)							
394	A	Postnatal Neurogenesis: Molecular Mechanisms	Poster	A1–A30	Halls A–C	1–5 p.m.	
395	A	Postnatal Neurogenesis: Environmental and Pharmacological Regulation	Poster	A31–A52	Halls A–C	1–5 p.m.	
396	A	Postnatal Neurogenesis: Temporal and Spatial Patterns	Poster	A53–B3	Halls A–C	1–5 p.m.	
397	A	Neural Differentiation of Pluripotent Stem Cells	Poster	B4–B33	Halls A–C	1–5 p.m.	
398	A	Activity-Dependent Changes in Connectivity	Poster	B34–C3	Halls A–C	1–5 p.m.	
399	A	Intrinsic Mechanisms of CNS Regeneration	Poster	C4–C27	Halls A–C	1–5 p.m.	
400	B	Invertebrate Transmission	Poster	C28–C41	Halls A–C	1–5 p.m.	
401	B	Nicotinic Receptors: Physiology and Pharmacology	Poster	C42–C71	Halls A–C	1–5 p.m.	
402	B	Neurotransmitter Release: Docking, Fusion, and Calcium Dependence	Poster	C72–D18	Halls A–C	1–5 p.m.	
403	B	Neurotransmitter Release: Vesicle Recycling and Biogenesis	Poster	D19–D33	Halls A–C	1–5 p.m.	
404	B	LTP: Pre- and Postsynaptic Mechanisms II	Poster	D34–D47	Halls A–C	1–5 p.m.	
405	C	APP Function and Processing	Poster	D48–D65	Halls A–C	1–5 p.m.	
406	C	APP and Abeta Pathology Models	Poster	D66–F7	Halls A–C	1–5 p.m.	
407	C	Amyloid Beta Aggregation and Toxicity	Poster	F8–G9	Halls A–C	1–5 p.m.	
408	C	Alzheimer's Disease: APOE and Cholesterol	Poster	G10–I4	Halls A–C	1–5 p.m.	
409	C	Parkinson's Disease Models II	Poster	I5–J11	Halls A–C	1–5 p.m.	
410	C	Parkinson's Disease: Genetic Models	Poster	J12–L7	Halls A–C	1–5 p.m.	
411	C	Parkinson's Disease: Alpha-Synuclein	Poster	L8–N6	Halls A–C	1–5 p.m.	
412	C	Parkinson's Disease: Clinical Therapies	Poster	N7–P3	Halls A–C	1–5 p.m.	
413	C	Proteopathic Mechanisms in Parkinson's Disease	Poster	P4–R7	Halls A–C	1–5 p.m.	
414	C	Parkinson's Disease: Circuit Mechanisms	Poster	R8–T5	Halls A–C	1–5 p.m.	
415	C	Huntington's Disease Animal Models and Therapeutics	Poster	T6–U17	Halls A–C	1–5 p.m.	
416	C	SBMA and Other Non-Huntington's Disease Repeat Diseases	Poster	U18–U25	Halls A–C	1–5 p.m.	
417	C	Motor Neuron Disease: Cellular Mechanisms	Poster	U26–V16	Halls A–C	1–5 p.m.	
418	C	Down Syndrome Molecular Mechanisms	Poster	V17–V30	Halls A–C	1–5 p.m.	
419	C	Epilepsy: Networks	Poster	V31–W18	Halls A–C	1–5 p.m.	
420	C	Ischemia: Cellular Mechanisms and Neuroprotection III	Poster	W19–X1	Halls A–C	1–5 p.m.	
421	C	Traumatic Brain Injury: Neurogenesis and Neurophysiology	Poster	X2–X19	Halls A–C	1–5 p.m.	
422	C	Spinal Cord Injury: Animal Models and Human Studies	Poster	X20–Y25	Halls A–C	1–5 p.m.	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
423	C	Nerve Agents and Warfare Illness	Poster	Y26–Z11	Halls A–C	1–5 p.m.	
424	C	Psychosis: Genetic Mechanisms	Poster	Z12–Z33	Halls A–C	1–5 p.m.	
425	C	Mood Disorders: Ketamine	Poster	Z34–AA9	Halls A–C	1–5 p.m.	
426	C	Mood Disorders: SSRIs	Poster	AA10–AA22	Halls A–C	1–5 p.m.	
427	C	Post–Traumatic Stress Disorder and Brain Trauma	Poster	AA23–BB9	Halls A–C	1–5 p.m.	
428	C	Alcohol: Intake and Preference	Poster	BB10–CC5	Halls A–C	1–5 p.m.	
429	C	Alcohol: Behavioral Effects	Poster	CC6–CC31	Halls A–C	1–5 p.m.	
430	C	Cocaine Reinforcement II	Poster	CC32–DD22	Halls A–C	1–5 p.m.	
431	D	Auditory Processing: Temporal, Frequency, and Spectral Processing-Model Systems and Subcortical	Poster	DD23–DD32	Halls A–C	1–5 p.m.	
432	D	Multisensory: Neural Circuitry and Connections	Poster	EE1–EE18	Halls A–C	1–5 p.m.	
433	D	Photoreceptors	Poster	EE19–FF12	Halls A–C	1–5 p.m.	
434	D	Striate Cortex Input Circuits	Poster	FF13–FF29	Halls A–C	1–5 p.m.	
435	D	Decision Making and the Cortex	Poster	FF30–GG15	Halls A–C	1–5 p.m.	
436	D	Sensorimotor Transformation: Behavior	Poster	GG16–GG27	Halls A–C	1–5 p.m.	
437	D	Reaching Action	Poster	GG28–HH15	Halls A–C	1–5 p.m.	
438	D	Eye Movements: Cortex	Poster	HH16–II3	Halls A–C	1–5 p.m.	
439	D	Mechanisms of Neuropathic Pain: Glia	Poster	II4–II14	Halls A–C	1–5 p.m.	
440	D	Somatosensory Cortex	Poster	II15–JJ1	Halls A–C	1–5 p.m.	
441	D	Somatosensory: Stimulus Feature Neural Coding	Poster	JJ2–JJ25	Halls A–C	1–5 p.m.	
442	D	Systems Physiology and Circuits	Poster	JJ26–KK16	Halls A–C	1–5 p.m.	
443	D	Cortical Planning of Actions	Poster	KK17–LL3	Halls A–C	1–5 p.m.	
444	D	Brain-Machine Interface: Implanted Electrodes I	Poster	LL4–LL22	Halls A–C	1–5 p.m.	
445	D	Brain-Machine Interface: Analytical Methods for Monitoring Tissue Responses	Poster	LL23–MM4	Halls A–C	1–5 p.m.	
446	D	Comparative Anatomy and Evolution I	Poster	MM5–MM28	Halls A–C	1–5 p.m.	
447	D	Comparative Anatomy and Evolution II	Poster	MM29–NN9	Halls A–C	1–5 p.m.	
448	E	Neuroendocrine Anatomy and Physiology	Poster	NN10–NN32	Halls A–C	1–5 p.m.	
449	E	Male Sexual Behavior	Poster	NN33–OO13	Halls A–C	1–5 p.m.	
450	E	Defensive Behavior and Aggression	Poster	OO14–OO24	Halls A–C	1–5 p.m.	
451	E	Behavioral and Neural Effects of Gonadal Hormones	Poster	OO25–PP19	Halls A–C	1–5 p.m.	
452	E	HPA Axis	Poster	PP20–QQ8	Halls A–C	1–5 p.m.	
453	E	Monoamines and Other Regulators	Poster	QQ9–QQ33	Halls A–C	1–5 p.m.	
454	E	Suprachiasmatic Nucleus and Circadian Rhythms	Poster	QQ34–RR27	Halls A–C	1–5 p.m.	
455	F	Face and Scene Perception	Poster	RR28–RR41	Halls A–C	1–5 p.m.	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
456	F	Direct Current Stimulation	Poster	RR42–SS4	Halls A–C	1–5 p.m.	
457	F	Human Learning: Feedback, Reinforcement, and Reward	Poster	SS5–SS26	Halls A–C	1–5 p.m.	
458	F	Human Decision-Making: Social and Emotional Factors	Poster	SS27–SS40	Halls A–C	1–5 p.m.	
459	F	Human Decision-Making: Value	Poster	SS41–SS55	Halls A–C	1–5 p.m.	
460	F	Human Social Cognition I	Poster	SS56–TT17	Halls A–C	1–5 p.m.	
461	F	Fear and Aversive Memories: Mechanisms	Poster	TT18–TT36	Halls A–C	1–5 p.m.	
462	F	Prefrontal Cortex II	Poster	TT37–TT60	Halls A–C	1–5 p.m.	
463	F	Animal Models: Spatial Learning and Place Cells	Poster	TT61–TT87	Halls A–C	1–5 p.m.	
464	F	Learning and Memory: Signaling and Gene Expression	Poster	TT88–UU21	Halls A–C	1–5 p.m.	
465	F	Cortical and Hippocampal Circuits: Learning and Memory	Poster	UU22–UU36	Halls A–C	1–5 p.m.	
466	F	Cortical and Hippocampal Circuits: Timing and Temporal Processing I	Poster	UU37–UU59	Halls A–C	1–5 p.m.	
467	F	Fear and Aversive Memories: Acquisition and Extinction	Poster	UU60–UU87	Halls A–C	1–5 p.m.	
468	F	Fear and Aversive Memories: Modulation	Poster	UU88–VV22	Halls A–C	1–5 p.m.	
469	F	Cocaine	Poster	VV23–VV37	Halls A–C	1–5 p.m.	
470	F	Fear and Anxiety: Human and Nonhuman Primates	Poster	VV38–VV61	Halls A–C	1–5 p.m.	
471	F	Invertebrate Motor Cicuits	Poster	VV62–VV75	Halls A–C	1–5 p.m.	
PROFESSIONAL DEVELOPMENT WORKSHOPS							
PDW17		How to Effectively Communicate Your Science to the Public	Professional Development Workshop		Room 207B	9–11 a.m.	
PDW18		Teaching Neuroscience: Online Learning	Professional Development Workshop		Room 207A	9–11 a.m.	
MEETINGS AND EVENTS							
ME09		Graduate School Fair	Meetings and Events		Hall E	noon–2 p.m.	
SfN-SPONSORED SOCIALS (6:45–8:30 P.M.)							
SOC08		Alzheimer's and Related Dementias Social	SfN-Sponsored Social		Renaissance Washington, DC: Congressional Ballroom A	6:45–8:45 p.m.	
SOC09		Behavioral Neuroendocrinology Social	SfN-Sponsored Social		Renaissance Washington, DC: Renaissance Ballroom East	6:45–8:45 p.m.	
SOC10		Developmental Neurobiology Social	SfN-Sponsored Social		Renaissance Washington, DC: Meeting Rooms 10 & 11	6:45–8:45 p.m.	
SOC11		Oculomotor and Vestibular Systems Social	SfN-Sponsored Social		Renaissance Washington, DC: Meeting Room 15	6:45–8:45 p.m.	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
SOC12		Faculty for Undergraduate Neuroscience Social	SfN-Sponsored Social		Renaissance Washington, DC: Grand Ballroom North and Central	6:45–8:45 p.m.	
SOC13		Hippocampus Social	SfN-Sponsored Social		Renaissance Washington, DC: Congressional B	6:45–8:45 p.m.	
SOC14		Ingestive Social	SfN-Sponsored Social		Renaissance Washington, DC: Congressional Ballroom C	6:45–8:45 p.m.	
SOC15		Music Social	SfN-Sponsored Social		Renaissance Washington, DC: Mount Vernon Square A & B	6:45–8:45 p.m.	
SOC16		Neural Control of Autonomic and Respiratory Function Social and Data Highlight	SfN-Sponsored Social		Renaissance Washington, DC: Renaissance Ballroom West A	6:45–8:45 p.m.	
SOC17		Pavlovian Society Social	SfN-Sponsored Social		Renaissance Washington, DC: Meeting Room 16	6:45–8:45 p.m.	
SOC18		Psychopharmacology Social: Your Brain on Drugs	SfN-Sponsored Social		Renaissance Washington, DC: Meeting Rooms 12, 13 & 14	6:45–8:45 p.m.	
SOC19		Vision Social: The Game Show Edition	SfN-Sponsored Social		Renaissance Washington, DC: Renaissance Ballroom West B	6:45–8:45 p.m.	

Dynamic Posters — Monday AM/PM

Monday's dynamic poster presentations are listed below. The listing includes the locations of each dynamic poster's corresponding paper poster. All dynamic poster presentations will occur in the Walter E. Washington Convention Center, Halls A-C. Dynamic poster displays are numbered DP1–DP10 and are spread throughout the poster floor. For full dynamic poster abstracts, visit the Neuroscience Meeting Planner or annual meeting mobile app.

THEME	ABSTRACT TITLE	PRESENTER	DYNAMIC POSTER LOCATION	PAPER POSTER LOCATION	PAPER POSTER PRES. NO.
DYNAMIC POSTERS (8 A.M.-NOON)					
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	Optogenetic probing and pharmacology of synaptic connections between striatal GABAergic neurons	Nour Al-Muhtasib	DP1	A56	297.04
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	TrkB / Rho signaling interplay during homo- and hetero-synaptic plasticity of dendritic spines	Nathan Hedrick	DP2	C23	302.01
Theme C: Disorders of the Nervous System	Network integrity analysis by *in vivo* calcium imaging on a mouse model of Alzheimer disease	Eduardo Rosales Jubal	DP3	D72	307.26
Theme C: Disorders of the Nervous System	Neurons promote glioma growth in an activity-dependent manner	Humsa Venkatesh	DP4	V30	318.17
Theme D: Sensory and Motor Systems	Emotion portrayed by a face is more important than the identity of the face during binocular rivalry in human observers	Nour Malek	DP5	EE16	333.06
Theme D: Sensory and Motor Systems	Descending control of swim posture by a midbrain nucleus in zebrafish	Tod Thiele	DP6	EE27	334.01
Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge	Repeated threats without harm increase basal metabolic activity in areas critical for coordinating behavioral defense responses	Diane Kim	DP7	OO10	351.1
Theme F: Cognition and Behavior	Striatal dopamine receptor correlation patterns in human obesity suggest reduced food reward and motivation with enhanced habitual opportunistic eating	Kevin Hall	DP8	TT54	362.14
Theme C: Disorders of the Nervous System	Retinal microangiopathy in a mouse model of inducible mural cell loss	Joseph Arboleda-Velasquez	DP9	UU75	367.1
Theme G: Novel Methods and Technology Development	Digital interactive anatomical connectivity atlas of the macaque monkey brain	Ziad Saad	DP10	VV50	371.04
DYNAMIC POSTERS (1-5 P.M.)					
Theme A: Development	Neuromodulatory state-dependent plasticity in striatal development	Yevgenia Kozorovitskiy	DP1	B45	398.12
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	Monte Carlo simulation of transmitter release and receptor activation at CA1 glutamatergic synapses supports modified fusion dynamics as a mechanism of 5-HT1BR inhibition	Emily Church	DP2	D33	403.15
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	Long lasting changes in metabolic efficiency occur during long term potentiation in hippocampal neurons	Caitlin Pequignot	DP3	D36	404.03
Theme C: Disorders of the Nervous System	Longitudinal PET assessment of metabolic changes associated with slow dopaminergic depletion in the MPTP primate model of Parkinson Disease	Francisco Molinet-Dronda	DP4	I7	409.03
Theme C: Disorders of the Nervous System	Identifying the epileptogenic zone using directed information	Rakesh Malladi	DP5	W6	419.08
Theme D: Sensory and Motor Systems	Sensori-motor neural activity in the Superior Colliculus of freely-flying bats	Ninad Kothari	DP6	DD32	431.1
Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge	Raphe serotonin neuron-specific oxytocin receptor knockout reduces aggression but not anxiety-like behavior in male mice only	Sarah Williams	DP7	OO14	450.01
Theme F: Cognition and Behavior	Large-scale, ensemble representations of space by CA1 hippocampal place cells visualized during spatial learning by fluorescence calcium-imaging in freely moving mice	Lacey Kitch	DP8	TT83	463.23
Theme F: Cognition and Behavior	Single neuron coding of fairness in the human anterior midcingulate cortex	David Devilbiss	DP9	VV41	470.04
Theme D: Sensory and Motor Systems	Mapping sensorimotor networks in *Drosophila* using optogenetics and two-photon calcium imaging	Romain Franconville	DP10	VV63	471.02

Monday Workshops, Meetings & Events

Preregistration Required
Professional Development
Public Outreach
Course Fee
Networking
Online Content

Professional Development, Advocacy, and Networking Resources

How to Effectively Communicate Your Science to the Public

Organizer: Scott M. Thompson, PhD
Panelists: Stuart Firestein, PhD; Tiffany Lohwater; Jane Nevins; Elaine Snell
9–11 a.m.
Walter E. Washington Convention Center: 207B

This workshop provides scientists with strategies and advice on how to effectively communicate neuroscience to general audiences. Presenters will focus on how to write about science, speak publicly and deliver scientific presentations, and communicate using various forms of social media.

Teaching Neuroscience: Online Learning

Organizer: Richard Olivo, PhD
Panelists: David Cox, PhD; Patricia Dinneen, MDE; Kristen Frenzel, PhD; Kurt R. Illig, PhD; Henry A. Lester, PhD; Samuel S. Wang, PhD
9–11 a.m.
Walter E. Washington Convention Center: 207A

Online courses are suddenly on everyone's agenda, but traditional courses also can benefit from online components. This year's teaching workshop discusses "blended learning" that mixes live classes and web instruction, continues with how to find useful online resources, and ends with a glimpse of neuroscience massive open online courses (MOOCs).

Graduate School Fair

noon–2 p.m.
Walter E. Washington Convention Center: Hall E

Monday Socials

Monday, Nov. 17, 6:45–8:45 p.m.

Alzheimer's and Related Dementias Social

Purely Social

Chair: Brian C. Kraemer, PhD

Co-chair: Chad Dickey, PhD

Renaissance Washington, DC: Congressional Ballroom A

Catch up and network with neurodegenerative disease researchers studying Alzheimer's disease and related dementia disorders. This will be a social event with cash bar.

Behavioral Neuroendocrinology Social

Social with Brief Presentation

Chair: Cheryl Sisk, PhD

Renaissance Washington, DC: Renaissance Ballroom East

Meet and speak with friendly colleagues interested in hormones, brain, and behavior. Whether you are new to the field or an old-timer, this is a fun opportunity to socialize with others studying these oh-so-powerful molecules. This is a social occasion at which the winner of the Society for Behavioral Neuroendocrinology's 2014 Frank A. Beach Award will be announced.

Developmental Neurobiology Social

Purely Social

Chair: Patricia Jensen, PhD

Co-chair: Daniel Goldowitz, PhD

Renaissance Washington, DC: Meeting Rooms 10 and 11

Come have a drink, relax, and meet with friendly colleagues with a common interest in the developing nervous system. This purely social event is meant to facilitate interactions between scientists. This is an excellent opportunity for students and postdoctoral fellows to interact with prominent neuroscientists in a relaxed atmosphere. Everyone is welcome!

Faculty for Undergraduate Neuroscience Social

Social with Brief Presentation

Chair: Noah Sandstrom, PhD

Co-chair: Jeffrey Smith, PhD

Guest: L. Gabel

Renaissance Washington, DC: Grand Ballroom North and Central

Socialize and exchange ideas with others interested in undergraduate neuroscience research and education. Undergraduates will present posters of their research and several awards will be announced including the FUN Student Travel Awards. See the FUN website for travel award information and registration information for poster presentations (funfaculty.org).

Hippocampus Social

Social with Brief Presentation

Chair: Denise Manahan-Vaughan, PhD

Guests: Z. Bashir, B. Christie, J. Disterhoft, H. Eichenbaum, K.J. Jeffery, R. Kesner, J. Knierim, T.J. McHugh, R.G.M. Morris, C. Ranganath, M. Rugg, W. Suzuki, H. Tanila, C. Zorumski

Renaissance Washington, DC: Congressional Ballroom B

Fascinated by the hippocampus? This social event will give you the opportunity to interact with outstanding hippocampal researchers, meet old friends, and make new ones. Join us to exchange ideas, get inspiration for your research, think about new collaborations, or maybe even line up your next position. All of this fun in a relaxed atmosphere with music and drinks.

Ingestive Social

Purely Social

Chair: Barry E. Levin, MD

Guests: H-R. Berthoud, L. Rinaman, A. Watts

Renaissance Washington, DC: Congressional Ballroom C

Socialize, network, and take a break from the hectic SfN annual meeting with friends and colleagues. We expect a wide range of internationally established investigators from academia and industry, students, and postdoctoral fellows working in ingestive behavior and allied fields of obesity, diabetes, and eating disorders, using model systems that include flies, worms, mammals, and humans… truly a diverse group of scientists and interests. Please plan to attend, for a few hours or a few minutes, to mix and mingle.

Music Social

Purely Social

Chair: William J. Pearce, PhD

Co-chair: Joe C. LaManna, PhD

Renaissance Washington, DC: Mount Vernon Square A and B

Join us for an evening of music provided by SfN member musicians. All musical types from rock to country to opera are welcome, with emphasis on variety and enthusiasm. The program fills quickly and there are no walk-ons. Each performance is typically allotted 10 minutes. Please join us for another casual, informal, and fun evening of neuroscientists enjoying music.

Neural Control of Autonomic and Respiratory Function Social and Data Highlight

Social with Brief Presentation

Chair: Alan F. Sved, PhD

Renaissance Washington, DC: Renaissance Ballroom West A

This social event is a gathering of scientists interested in the role of the autonomic nervous system and the neural systems involved in respiratory regulation in health and disease such as hypertension, sleep apnea, metabolic syndrome, obesity, and many others. The gathering is meant to facilitate informal interactions between scientists at all career levels and highlight some of the most transformational research in this field. The social will highlight some of the abstracts presented at this year's meeting.

Oculomotor and Vestibular Systems Social

Purely Social

Chair: Terrence R. Stanford, PhD

Guests: M. Basso, B. Corneil, D. Crawford, K. Cullen, P. Gamlin, N. Gandhi, J. Groh, P. May, D.P. Munoz, E. Salinas, J. Schall, M. Sommer

Renaissance Washington, DC: Meeting Room 15

Drink and munch snacks among oculomotor and vestibular neuroscientists. Get a preview of the upcoming Gordon Research Conference (GRC) and Seminar (GRS) on eye movements to be held July 25-31 at Bentley University. Past, present, and future chairs will be on hand to chat about the meeting dedicated solely to all things oculomotor. Students and postdoctoral fellows can learn more about the GRS or simply hang out with established neuroscientists in a relaxed, informal setting. All are welcome.

Pavlovian Society Social

Purely Social

Chair: Matt Lattal, PhD

Guests: A. Delamater, F. Helmstetter

Renaissance Washington, DC: Meeting Room 16

Get together with scientists from all academic levels (student to emeritus) working at all levels of analysis (molecular to behavioral) with a shared interest in learning, memory, and emotion. We also welcome Tolmanians and other non-Pavlovians who enjoy consummatory conditioned responses evoked by cues associated with snacks and beverages.

Psychopharmacology Social: Your Brain on Drugs

Purely Social

Chair: Jared W. Young, PhD

Co-chair: Stan Floresco, PhD

Guests: S. Ahmari, J. Cryan, A. Holmes, I. Lucki, K.A. Miczek, T.W. Robbins, B.J. Sahakian, P. Skolnick

Renaissance Washington, DC: Meeting Rooms 12, 13, and 14

Come one, come all. Experience the magical medicinal properties of those molecules you've been studying. Yes, this social is to celebrate your brain on drugs! We got into this field for a reason, now is your chance to get together and recall why (beverages will be available for those whose recall is context-dependent). Join us for an informal evening socializing with your fellow psychopharms. Given the hard day's neuroscience, take the opportunity to loosen up with a refreshing beverage and listen to a psychopharmacologically inspired playlist.

Vision Social: The Game Show Edition

Purely Social

Chair: Anita Disney, PhD

Co-chair: Mehrdad Jazayeri, PhD

Guests: B. Cumming, I. Fine, J. Hirsch, A. Huk, J.A. Movshon

Renaissance Washington, DC: Renaissance Ballroom West B

Come join us for the 2014 Vision Social. We will have games and a quiz show with our special guests as team captains. Perhaps yours will be the team crowned The Most Game. This is a chance to laugh with (and at) friends, old and new.

Complete Session Listing

Monday AM

SPECIAL LECTURE *Walter E. Washington Convention Center*

273. Building a Synapse Through Nuclear Export of Large RNA Granules and Exosomes — CME

Mon. 8:30 AM - 9:40 AM — Hall D

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

Studies in *Drosophila* are uncovering novel conserved mechanisms for synapse development and plasticity. These include signaling pathways from the membrane to the nucleus, promoting the nuclear assembly and export of ribonucleoprotein granules and their synaptic localization. In addition, pre- and postsynaptic compartments are shaped through trans-synaptic transmission of exosomes carrying transmembrane proteins and RNA. This lecture shares lessons from the study of viruses and Wnt signaling that led to these discoveries and highlights their importance in disease.

SYMPOSIUM *Walter E. Washington Convention Center*

274. Attention, Reward, and Information Seeking — CME

Mon. 8:30 AM - 11:00 AM — Ballroom A

Chair: J. GOTTLIEB
Co-Chair: A. RANGEL

Attention is a core cognitive function that is involved in nearly all behaviors. However, despite countless investigations, many aspects of attention remain poorly understood. This symposium highlights recent findings from humans and nonhuman primates that support a view of attention as a decision that is optimized for sampling information. This view can advance our understanding of attention by probing how it is related to uncertainty reduction, learning, and decision making.

8:30 **274.01** Introduction.

8:35 **274.02** Control of attention by reward and uncertainty in the context of behavior. M. HAYHOE. *Univ. Texas -Austin.*

9:10 **274.03** Learned attention - basal ganglia mechanisms. O. HIKOSAKA. *Natl. Eye Inst., NIH.*

9:45 **274.04** Cue weighting based on reward and expected information. J. GOTTLIEB. *Columbia Univ.*

10:20 **274.05** The role of attention in simple economic choice. A. RANGEL. *Caltech.*

10:55 **274.06** Closing Remarks.

SYMPOSIUM *Walter E. Washington Convention Center*

275. Target Validation in Huntington's disease: Advances Through the Development and Use of Animal Models — CME

Mon. 8:30 AM - 11:00 AM — 146AB

Chair: M. BEAL
Co-Chair: X. YANG

A major challenge in advancing treatment for neurodegenerative disorders is to validate novel therapeutic targets with animal models that often partially capture the disease phenotypes. By focusing on Huntington's disease (HD) as a model, the speakers will address the development of novel and diverse mouse genetic models, the recent adoption of best-practice guidelines for using such animal models in the field, and identification of novel disease-modifying targets for HD.

8:30 **275.01** Introduction.

8:35 **275.02** Insights into the molecular pathogenesis of Huntington's disease and validation of therapeutic targets. G. BATES. *King's Col. London.*

9:10 **275.03** Dissecting Huntington's disease pathogenesis with human genomic transgenic mouse models. X. YANG. *David Geffen Sch. of Med. at UCLA.*

9:45 **275.04** Insights into the molecular basis of Huntington's disease: the roles of PGC-1a and PPARd. A. LA SPADA. *UCSD.*

10:20 **275.05** Mitochondrial dysfunction as a therapeutic target for Huntington's disease. M. BEAL. *Weill Med. Col. of Cornell Univ.*

10:55 **275.06** Closing Remarks.

SYMPOSIUM *Walter E. Washington Convention Center*

276. The Effects of Hearing Loss on Neural Processing, Plasticity, and Aging — CME

Mon. 8:30 AM - 11:00 AM — Ballroom C

Chair: A. WINGFIELD
Co-Chair: J. PEELLE

The brain has a remarkable ability to adapt to the degraded auditory signals that accompany hearing loss, with neuroplasticity affecting both low-level and higher-level functions. This session presents findings from animal, human, and computational approaches that demonstrate the cascading effects of hearing loss on higher-level neural processing and the implications for the hearing impaired.

8:30 **276.01** Introduction.

8:35 **276.02** Neural mechanisms of adaptation to unilateral hearing loss. A. KING. *Univ. of Oxford.*

9:10 **276.03** How hearing loss interferes with selective auditory attention. B. SHINN-CUNNINGHAM. *Boston Univ.*

9:45 **276.04** Computational approaches linking hearing loss and cognitive processing. P. MILLER. *Brandeis Univ.*

10:20 **276.05** Cognitive consequences of hearing loss. J. PEELLE. *Washington Univ.*

10:55 **276.06** Closing Remarks.

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

MINISYMPOSIUM *Walter E. Washington Convention Center*

277. ***In vivo* Reprogramming for Brain Repair** — CME

Mon. 8:30 AM - 11:00 AM — Ballroom B

Chair: G. CHEN
Co-Chair: C. ZHANG

Induced pluripotent stem cell technology has made it possible to trans-differentiate one cell type into another. However, most of these studies were carried out *in vitro* and their clinical relevance is unclear. This minisymposium will present a series of cutting-edge work using trans-differentiation technology to reprogram glial cells into neurons in injured or diseased mouse brain *in vivo* for brain repair.

8:30 **277.01** Introduction.

8:35 **277.02** Epigenetic reprogramming towards the neural lineage. M. WERNIG. *Stanford Univ.*

8:55 **277.03** Reprogramming of brain-resident cells into neurons in the adult cerebral cortex. B. BERNINGER. *Johannes Gutenberg Univ. Mainz.*

9:15 **277.04** Reprogramming the fate of resident astrocytes for regeneration. C. ZHANG. *UT Southwestern Med. Ctr.*

9:35 **277.05** *In vivo* neuronal reprogramming: Insights into the molecular basis of stem cells. M. NAKAFUKU. *Cincinnati Children's Hosp. Med. Ctr.*

9:55 **277.06** Generation of functional neurons that integrate into neural circuitry via direct conversion of NG2 cells *in vivo.* M. P. PARMAR. *Wallenberg Neurosci. Ctr.*

10:15 **277.07** *In vivo* reprogramming for brain repair after injury and diseases G. CHEN . *Penn State Univ.*

11:35 Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

278. New Roles for the External Globus Pallidus in Basal Ganglia Circuits and Behavior — CME

Mon. 8:30 AM - 11:00 AM — 151AB

Chair: A. GITTIS

The external segment of the globus pallidus (GPe) has long been depicted as a homogenous nucleus within the motor-suppressing "indirect" pathway of basal ganglia. However, recent work has rendered this simplistic view of the GPe obsolete. This minisymposium highlights recent discoveries about the organization and function of neural circuits in the GPe that influence both motor and non-motor behaviors in health and disease.

8:30 **278.01** Introduction.

8:35 **278.02** Neuroanatomical circuits in basal ganglia function and dysfunction. M. MORROW. *Univ. of Pittsburgh.*

8:55 **278.03** Transgenic mouse lines subdivide the GPe into distinct neuronal populations. A. GITTIS. *Carnegie Mellon Univ.*

9:15 **278.04** Dichotomous organization of the external globus pallidus. N. MALLET. *Inst. of Neurodegenerative Diseases, CNRS UMR 5293, Univ. of Bordeaux.*

9:35 **278.05** Dynamics of basal ganglia circuits during action selection and suppression. J. BERKE. *Univ. Michigan, Ann Arbor.*

9:55 **278.06** Plasticity of the external globus pallidus-subthalamic nucleus synapse. M. BEVAN. *Northwestern Univ.*

10:15 **278.07** Disrupted astrocytic gating of striatopallidal transmission in models of Parkinson's disease. C. CHAN. *Northwestern Univ.*

10:35 **278.08** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

279. The Role of Parvalbumin Neurons in Visual Processing and Plasticity — CME

Mon. 8:30 AM - 11:00 AM — 145B

Chair: A. W. MCGEE
Co-Chair: S. KUHLMAN

This minisymposium examines the genes and mechanisms that parvalbumin-positive (PV+) interneurons modulate the function and flexibility of visual cortical circuitry. The speakers will present new findings on how PV+ interneurons contribute to visual processing including contextual modulation, gain control, and binocularity, as well as describe the role of several genes that operate within PV+ neurons to regulate cortical synaptic connectivity and visual plasticity.

8:30 **279.01** Introduction.

8:35 **279.02** PV interneurons support the development of ipsilateral eye responses in visual cortex. S. P. GANDHI. *Univ. of California, Irvine.*

8:55 **279.03** Molecular control of PV interneurons to limit adult visual cortex plasticity. H. MORISHITA. *Icahn Sch. of Med. at Mount Sinai.*

9:15 **279.04** The role of PV interneurons in contextual modulation of visual processing. L. BUSSE. *Univ. of Tuebingen.*

9:35 **279.05** Regulation of the critical period by NARP-dependent recruitment of inhibition. E. M. QUINLAN. *Univ. of Maryland.*

9:55 **279.06** Impact of neuregulin-ErbB4 signaling on the development of gain control in visual cortex. S. J. KUHLMAN. *Carnegie Mellon Univ.*

10:15 **279.07** NgR1 functions within PV interneurons to close the critical period for ocular dominance plasticity. A. W. MCGEE. *Univ. of Southern California Keck Sch. of Med.*

10:35 **279.08** Closing Remarks.

SPECIAL LECTURE *Walter E. Washington Convention Center*

280. Genes and Environment Interaction During Development: Redox Imbalance in Schizophrenia — CME

Mon. 10:00 AM - 11:10 AM — Hall D

Speaker: K. QUANG DO, *Ctr. for Psychiatric Neurosci., Laussane Univ. Hospital, Switzerland*

Understanding how the interaction of genes and environmental risk factors during neurodevelopment leads to cognitive, affective, and social impairment is a central challenge in psychiatric neuroscience. This lecture discusses the case of schizophrenia where these risk factors converge on a hub made of NMDAR hypofunction, neuroinflammation and redox imbalance/oxidative stress, affecting parvalbumine neurons and myelination that leads to structural and functional dysconnectivity. A translational approach toward prevention attempts to modify the disease course by redox modulators.

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

SPECIAL LECTURE *Walter E. Washington Convention Center*

281. The Brain Is Needed to Cure Spinal Cord Injury — CME

Mon. 11:30 AM - 12:40 PM — Hall D

Speaker: T. ISA*, Natl. Inst. for Physiological Sci., Japan.*

Support contributed by: Lilly USA, LLC

Recovery after neuronal damage is learned by the spared neural systems. Isa's research team is studying the mechanism of recovery of hand dexterity after partial spinal cord injury using nonhuman primate models by combining multidisciplinary approaches such as kinetic analysis, electrophysiology, brain imaging, neuroanatomy, and genetic manipulation with viral vectors. Isa will talk about the large-scale circuit reorganization that occurs through training and is critical for recovery, spanning over the spinal cord, motor cortices, and even the limbic structures.

NANOSYMPOSIUM

282. Parkinson's Disease: LRRK2

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 147A

8:00 **282.01** Role of LRRK2 in human monocytes and t-cell subset frequencies and activation as a function of age as a potential contributor to immune dysfunction in idiopathic Parkinson's disease. M. G. TANSEY*; D. A. COOK; G. T. KANNARKAT; K. P. MACPHERSON; L. M. BUTKOVICH; J. CHANG; J. CHUNG; S. FACTOR; J. M. BOSS. *Emory Univ. Sch. of Med., Emory Univ. Sch. of Med., Emory Univ. Sch. of Med.*

8:15 **282.02** LRRK2-mediated neuroinflammation in α-synuclein induced neurodegeneration. J. LIMA DAHER*; L. A. VOLPICELLI-DALEY; J. P. BLACKBURN; M. S. MOEHLE; A. B. WEST. *Univ. of Alabama At Birmingham.*

8:30 **282.03** Interferon gamma induces leucine-rich repeat kinase LRRK2 via extracellular signal-regulated kinase ERK5 in macrophages. M. KUSS; E. ADAMOPOULOU; P. J. KAHLE*. *Univ. of Tuebingen.*

8:45 **282.04** pSer1292 in the pathophysiology of Parkinson's disease. K. B. FRASER*; M. MOEHLE; J. BLACKBURN; R. ALCALAY; D. STANDAERT; A. WEST. *Univ. of Alabama At Birmingham, Columbia Univ.*

9:00 **282.05** ● Transcriptional signature of LRRK2 genetic variants in human brain. H. RHINN; A. ABELIOVICH*. *Columbia Univ., Columbia Univ.*

9:15 **282.06** Ribosomal protein phosphorylation in LRRK2-mediated neurodegeneration. I. MARTIN*. *Johns Hopkins Univ.*

9:30 **282.07** ● A Parkinson's disease gene regulatory network identifies the signaling protein RGS2 as a modulator of LRRK2 activity and neuronal toxicity. B. L. WOLOZIN*; J. DUSONCHET; H. LI; M. GUILLILY; M. LIU; J. Y. BOON; A. MAMAIS; Z. YUE; R. BANDOPADHYAY; M. A. GLICKSMAN; D. J. MOORE; J. J. COLLINS. *Boston Univ. Schl Med., Boston Univ. Sch. of Med., Mayo Clin., Brigham and Women's Hosp., Univ. College, Londong, Icahn Sch. of Med. at Mount Sinai, Van Andel Inst., Harvard Univ.*

9:45 **282.08** A novel mouse model of Parkinson's disease with conditional expression of mutant LRRK2 in dopaminergic neurons causes progressive neurodegeneration. Y. XIONG*; X. MAO; J. N. STANKOWSKI; B. LEE; H. KO; Y. LEE; S. NEIFERT; J. C. GRIMA; D. SWING; L. IACOVITTI; L. TESSAROLLO; T. M. DAWSON; V. L. DAWSON. *Johns Hopkins Univ. Sch. of Med., Adrienne Helis Malvin Med. Res. Fndn., Diana Helis Henry Med. Res. Fndn., Johns Hopkins Univ. Sch. of Med., Neural Develop. Section, Mouse Cancer Genet. Program, Ctr. for Cancer Research, Natl. Cancer Inst., Farber Inst. for Neurosciences, Thomas Jefferson Univ. Med. Col., Johns Hopkins Univ. Sch. of Med.*

10:00 **282.09** Mutation of LRRK2 ROC domain induces motor dysfunction, neuronal loss and autophagy in a transgenic moouse model. M. CHEN*; R. WU. *Natl. Taiwan Univ. Hosp., Natl. Taiwan Univ.*

10:15 **282.10** Progressive dopaminergic alterations and mitochondrial abnormalities in LRRK2 G2019S knock in mice. M. YUE; K. HINKLE; P. DAVIES; F. FIESEL; E. TRUSHINA; T. CHRISTENSEN; E. BOWLES; B. BEHROUZ; S. LINCOLN; J. BEEVERS; A. MILNERWOOD; A. KURTI; J. FRYER; W. SPRINGER; D. DICKSON; M. FARRER; H. L. MELROSE*. *Mayo Clin. Jacksonville, MRC Protein Phosphorylation Unit, Mayo Clin. Rochester, Univ. of British Columbia.*

10:30 **282.11** Plasticity in the hippocampus of LRRK2 mutant mice. E. S. SWEET*; B. SAUNIER-REBORI; Z. YUE; R. D. BLITZER. *Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

NANOSYMPOSIUM

283. Aging Brain and Cognition

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 152B

8:00 **283.01** Exercise but not antioxidants reversed age-related declines in motor function. A. SIDHU*; P. VANN; J. WONG; N. SUMIEN. *UNT Hlth. Sci. Ctr.*

8:15 **283.02** Individual differences in aerobic fitness influence the regional pattern of brain volume in healthy aging. G. E. ALEXANDER*; M. C. FITZHUGH; D. A. RAICHLEN; K. A. HAWS; G. A. TORRE; T. P. TROUARD; G. A. HISHAW. *Univ. of Arizona, Univ. of Arizona, Evelyn F. McKnight Brain Inst., Univ. of Arizona, Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

8:30 **283.03** Lifestyle choices to protect the aging brain - preserving Apoe expression and reversing neurovascular decline. G. R. HOWELL*; K. ONOS; L. GRAHAM; S. SIMEONE; I. SOTO. *The Jackson Lab.*

8:45 **283.04** Aging-induced immunological response of the brain's choroid plexus negatively regulates neurogenesis and cognitive function. K. BARUCH*; A. DECZKOWSKA; E. DAVID; J. M. CASTELLANO; O. MILLER; A. KERTSER; T. BERKUTZKI; Z. ITZHAKI; D. BEZALEL; T. WYSS-CORAY; I. AMIT; M. SCHWARTZ. *Weizmann Inst. of Sci., Stanford Univ. Sch. of Med.*

9:00 **283.05** Germline mitochondrial DNA mutations can reduce lifespan. J. M. ROSS*; G. COPPOTELLI; B. J. HOFFER; L. OLSON. *Karolinska Institutet, Case Western Reserve Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:15 **283.06** miR-155/IL-6 axis regulates microglial inflammation-induced abnormality in neural differentiation in the dentate gyrus. M. E. WOODBURY*; R. W. FREILICH; J. D. BOUCHER; S. IKEZU; K. INGRAHAM; H. ASAI; C. J. CHENG; F. SLACK; T. IKEZU. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med., Yale Univ., Boston Univ. Sch. of Med.*

9:30 **283.07** Postmortem analyses of the Lothian Birth Cohort 1936: Extending brain phenotyping to the level of the synapse. T. L. SPIRES*; C. SMITH; A. WRIGHT; M. E. BASTIN; J. M. STARR; J. M. WARDLAW; T. H. GILLINGWATER; I. J. DEARY. *The Univ. of Edinburgh, The Univ. of Edinburgh, The Univ. of Edinburgh, The Univ. of Edinburgh.*

9:45 **283.08** MFG-E8-mediated defects in microglial phagocytosis impair synaptic plasticity, learning, and memory. N. A. DECAROLIS*; U. HADITSCH; H. LEE; M. R. SIDDIQUI; D. PURGER; K. SCHRENK-SIEMENS; W. CHUNG; B. A. BARRES; J. B. DING; D. V. MADISON; T. D. PALMER. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ.*

10:00 **283.09** Astrocytic adenosine receptor A2A regulates memory. A. G. ORR*; E. C. HSIAO; M. M. WANG; K. HO; D. H. KIM; X. WANG; W. GUO; J. KANG; G. YU; A. ADAME; N. DEVIDZE; D. DUBAL; E. MASLIAH; B. R. CONKLIN; L. MUCKE. *Gladstone Inst. of Neurolog. Dis., Univ. of California, Univ. of California, Univ. of California, Gladstone Inst. of Cardiovasc. Dis., Univ. of California.*

10:15 **283.10** Aging-associated immune dysregulation drives a shift in the direction of hippocampal synaptic plasticity and increases mini frequency. S. L. PATTERSON*; G. P. CORTESE; J. A. VARELA; R. M. BARRIENTOS; S. F. MAIER. *Temple Univ., Columbia Univ., Boston Col., Univ. of Colorado, Univ. of Colorado.*

10:30 **283.11** A novel role of adenosine A2A receptor in the modulation of the stress glucocorticoid receptor in the brain. L. V. LOPES*; V. L. BATALHA; D. R. FERREIRA; J. S. VALADAS; J. E. COELHO; R. GOMES; P. M. CANAS; V. BUÉE-SCHERRER; S. HUMEZ; T. SHMIDT; M. HAMDANE; G. SADRI-VAKILI; L. BUÉE; T. F. OUTEIRO; R. A. CUNHA; M. BADER; D. BLUM. *Inst. de Medicina Molecular, Fac Med. Lisbon, CNC-Center for Neurosci. and Cell Biology, Univ. of Coimbra, Inserm, U837, Lille, France, Max-Delbrück-Center for Mol. Med. (MDC), MassGeneral Inst. for Neurodegenerative Disease, Massachusetts Gen. Hospital, Boston, Univ. Medizin Göttingen, Max-Delbrück-Center for Mol. Med. (MDC), Berlin, Germany.*

10:45 **283.12** Longitudinal iron accumulation is associated with regional brain shrinkage in healthy aging. A. DAUGHERTY*; N. RAZ. *Inst. of Gerontology, Wayne State Univ., Wayne State Univ.*

11:00 **283.13** Decreased interneuron function associates gamma rhythm to reduced oxygen supply, but increased consumption in brain aging. S. B. JESSEN*; C. MATHIESEN; B. L. LIND; M. LAURITZEN. *Univ. of Copenhagen, Ctr. for Healthy Aging, Ctr. for Healthy Aging, Glostrup Hosp.*

11:15 **283.14** ● Factors present in young plasma enhance neuronal function in old mice. J. M. CASTELLANO*; K. I. MOSHER; R. J. ABBEY; D. BERDNIK; J. C. SHEN; M. ANGST; T. WYSS-CORAY. *Stanford Univ., Stanford Univ.*

NANOSYMPOSIUM

284. Ischemia: Cellular Mechanisms and Neuroprotection I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 146C

8:00 **284.01** Stroke-induced vascular and astroglial changes depend on age and brain regions: Time for transfer of the 'neurovascular unit' concept into analyses of Alzheimer-like alterations? W. HARTIG*; C. A. HAWKES; R. ANDERS; S. NISSEL; C. HOBOHM; J. GROSCHE; I. BECHMANN; R. O. CARARE; D. MICHALSKI. *Univ. Leipzig, PFI, Univ. Southampton, Dept Neurol., Inst. Anatomy, Univ. Leipzig.*

8:15 **284.02** Roles of pericyte NADPH oxidase 4 in acute brain ischemia. A. NISHIMURA*; T. AGO; Y. YOSHIKAWA; M. TACHIBANA; R. MATSUO; Y. WAKISAKA; J. KURODA; T. KITAZONO. *Kyushu Univ., Kyushu Univ.*

8:30 **284.03** Glial calcium signaling in the ischemic mouse retina. A. I. SRIENC*; K. BIESECKER; A. AGARWAL; D. E. BERGLES; E. A. NEWMAN. *Univ. of Minnesota, Johns Hopkins Univ.*

8:45 **284.04** Genetic engineering of Primary Glial Restricted Progenitors for improved intraarterial targeting to the ischemic brain. A. M. JABLONSKA*; D. J. SHEA; A. ARNOLD; J. W. BULTE; M. JANOWSKI; K. KONSTANTOPOULOS; P. WALCZAK. *Johns Hopkins Univ. Sch. of Med., Inst. for Cell Engineering, Johns Hopkins Univ., Johns Hopkins Univ., Mossakowski Med. Res. Centre, Polish Acad. of Sci., Mossakowski Med. Res. Centre, Polish Acad. of Sci., Univ. of Warmia and Mazury.*

9:00 **284.05** Cell death and arrest of lineage progression to oligodendrocyte are followed by indirect damage of corticospinal neurons in the developing white matter injury model rat. S. MISUMI*; Y. UEDA; Y. SHIMIZU; A. ISHIDA; C. JUNG; H. HIDA. *Nagoya City Univ. Grad Sch.*

9:15 **284.06** Response to intracortical microstimulation in the hindlimb area in the developmental white matter injury model rat. Y. UEDA*; S. MISUMI; A. ISHIDA; Y. SHIMIZU; C. JUNG; H. HIDA. *Nagoya City Univ. Grad. Sch. Med. Sci.*

9:30 **284.07** Ontogenic and sexual differences in neurotrophin response to anesthesia and neonatal HI in cerebellum. J. YU*; D. L. FLOCK; F. J. NORTHINGTON; R. CHAVEZ-VALDEZ. *Johns Hopkins.*

9:45 **284.08** Developmental effects of prenatal hypoxia-ischemia: Glutamate receptors and transporters and cell communication *in vitro.* M. C. RODRIGUES*; C. T. N. BALDUCI; A. P. COSTA; T. SAVIGNON; F. TENÓRIO; C. HEDIN-PEREIRA; P. C. BARRADAS. *State Univ. of Rio De Janeiro, Oswaldo Cruz Fndn., Federal Univ. of Rio de Janeiro.*

10:00 **284.09** Study of the auditory threshold in a perinatal asphyxia model. A model to study auditory system impairment. A. MARTINEZ-IBARGÜEN; M. REVUELTA; O. ARTEAGA; H. MONTALVO; H. LAFUENTE; F. ALVAREZ; D. ALONSO-ALCONADA; L. MARTINEZ MILLAN*; E. HILARIO; A. ALVAREZ. *Univ. Basque Country, Univ. Basque Country, Hosp. de Cruces, Hosp. de Cruces, Univ. Basque Country.*

10:15 **284.10** ● Prenatal hypoxic-ischemic insult leads to astrogliosis in periaqueductal gray and enhances the nociception and anxiety-like behavior in adult male rats. L. SPIEGEL DE ALMEIDA*; P. C. ARAUJO; O. M. M. S. DE ALMEIDA; P. C. BARRADAS. *UERJ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

NANOSYMPOSIUM

286. Spinal Cord Injury: Therapeutic Strategies

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 152A

8:00 **286.01** Improvement of motor dysfunction in acute and chronic phases in spinal cord injury mice by a crude drug-derived compound. N. TANABE*; T. KUBOYAMA; K. KAZUMA; K. KONNO; C. TOHDA. *Univ. of Toyama, Div. of Kampo-Pharmaceutics, Inst. of Natural Med., Univ. of Toyama.*

8:15 **286.02** Neuregulin-1 therapy moderates reactive astrogliosis and scar formation following spinal cord injury. A. ALIZADEH; S. DYCK; D. NGUYEN; S. KALLIVALAPPIL; E. PROULX; E. EFTEKHARPOUR; S. KARIMI-ABDOLREZAEE*. *Univ. of Manitoba.*

8:30 **286.03** Systemic administration of mesenchymal stem cells promotes tissue preservation and functional recovery after compressive spinal cord injury in mice. B. S. RAMALHO; C. M. SALES; A. B. MARTINEZ; F. ALMEIDA*. *Univ. Federal do Rio de Janeiro, UFRJ.*

8:45 **286.04** Local delivery of minocycline for spinal cord repair. Z. WANG; T. KIM; K. WOFFORD; Z. ZHANG; Y. ZHONG*. *Drexel Univ., Drexel University, Col. of Med., Drexel Univ.*

9:00 **286.05** Danger signals, IL-4 and neuroprotection after spinal cord injury. J. WALSH*; S. HENDRIX; F. BOATO; I. SMIRNOV; D. HECHLER; G. GOLZ; T. KAMMERTÖNS; J. VOIGT; C. VOGELAAR; V. SIFFRIN; A. RADJAVI; S. GADANI; A. FERNANDEZ-CASTANEDA; A. GAULTIER; R. GOLD; F. ZIPP; R. NITSCH; J. KIPNIS. *Univ. of Virginia, Univ. of Virginia, Univ. of Virginia, Hasselt Univ., Univ. Med. Center, Johannes Gutenberg-University, Univ. of Virginia, Univ. of Virginia, Charité – Universitätsmedizin Berlin, Max-Delbrück-Center for Mol. Med., Univ. of Mainz, Univ. of Virginia, Univ. of Virginia, St. Josef-Hospital/Ruhr-University, Univ. Med. Center, Johannes Gutenberg Univ., Univ. of Mainz.*

9:15 **286.06** Increased reactive sprouting in spinal cord-injured conditional Sox9 knockout mice. A. BROWN*; W. M. MCKILLOP; K. XU; T. HRYCIW. *Robarts Res. Inst., Robarts Res. Inst.*

9:30 **286.07** Intracellular delivery of thioredoxin enhances neuroprotection in *in vitro* model of oxidative stress and *in vivo* model of spinal cord injury. E. EFTEKHARPOUR*; M. IQBAL; N. PANDIAN. *Regenerative Med. Group, and Spinal Cord Res. Cntr , Univ. of Mani, Univ. of Manitoba, Univ. of Manitoba.*

9:45 **286.08** Local release of paclitaxel from aligned, electrospun poly(lactic-acid) microfibers promotes directed axonal extension. J. A. ROMAN*; A. HURTADO; H. MAO. *Johns Hopkins Univ., Translational Tissue Engin. Ctr., Johns Hopkins Univ., Johns Hopkins Univ.*

10:00 **286.09** Chondroitin sulfate proteoglycans negatively modulate the properties of adult spinal cord neural precursor cells by signaling through LAR and PTPσ receptors and activation of the Rho/ROCK pathway. S. M. DYCK*; A. ALIZADEH; E. PROULX; S. KARIMI-ABDOLREZAEE. *Univ. of Manitoba.*

10:15 **286.10** Fumaric acid esters attenuate the early inflammatory response following spinal cord injury in mice via activation of the Nrf2 antioxidant pathway. E. ESPOSITO; I. PATERNITI; D. IMPELLIZZERI; M. CORDARO; M. SORTINO*; S. CUZZOCREA. *Univ. of Messina, Univ. of Catania.*

10:30 **286.11** ● Bio-scaffolding of axonal regeneration across the traumatic spinal cord. F. NOTHIAS*; J. CHEDLY; A. MONTEMBAULT; C. PESTRE; S. SOARES; Y. VON BOXBERG; L. DAVID. *Neurosci. Paris Seine, CNRS-UMR8246, INSERM1130, IMP-ICE/ Univ. Claude Bernard Lyon 1.*

10:45 **286.12** Effect of combined therapy with neural stem cell transplantation and treadmill training for chronic spinal cord injury in mice. S. TASHIRO*; S. NISHIMURA; H. IWAI; G. ITAKURA; K. HORI; L. ZHANG; M. SHINOZAKI; A. IWANAMI; Y. TOYAMA; M. LIU; M. NAKAMURA; H. OKANO. *KEIO Univ.School of Med., KEIO Univ.School of Med., KEIO Univ.School of Med.*

11:00 **286.13** Use of perfluorocarbon (oxycyte) as innovative therapy for spinal cord injury. S. BOURIKIAN*; A. YACOUB; B. MATHERN; H. YOUNG. *VCU Sch. of Med., VCU Heath Syst., VCU Hlth. Syst.*

11:15 **286.14** ● Effect of RGM neutralizing antibody on functional recovery following spinal cord injury. A. J. MOTHE*; R. PENHEIRO; A. SHABANZADEH; P. MONNIER; B. K. MUELLER; C. H. TATOR. *Krembil Discovery Tower, Toronto Western Hospit, Abbvie Germany, Univ. of Toronto.*

NANOSYMPOSIUM

287. Mood Disorders: Novel Therapeutic Mechanisms

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 140A

8:00 **287.01** Antidepressant-like effects of the k-opioid receptor partial agonist nalmefene. C. A. BROWNE*; I. LUCKI. *Univ. of Pennsylvania.*

8:15 **287.02** The antidepressant-like effects of combination buprenorphine/naltrexone in the novelty-induced hypophagia task in mice. S. J. BAILEY*; A. ALMATROUDI; C. P. BAILEY; S. M. HUSBANDS. *Univ. of Bath.*

8:30 **287.03** ● Preclinical evaluation of the fast acting antidepressant potential of dextromethorphan: Involvement of AMPA and sigma-1 receptors. L. NGUYEN*; R. R. MATSUMOTO. *WVU Sch. of Pharm.*

8:45 **287.04** ● A single injection of ketamine confers robust, long-term protection against stress-induced depressive-like behaviors. R. A. BRACHMAN*; R. HEN; C. A. DENNY. *Columbia Univ.*

9:00 **287.05** ● The contribution of NR2B-dependent plasticity in adult-born granule cells to antidepressant action. L. TANNENHOLZ*; R. HEN; M. A. KHEIRBEK. *Columbia Univ.*

9:15 **287.06** Inhibition of phosphodiesterase 2 reverses stress-induced mood disorders: Involvement of nadph oxidase functions. Y. XU*; L. RUAN; X. XIE; H. ZHANG; J. M. O'DONNELL. *State Univ. of New York at Buffalo, West Virginia Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:30 **287.07** Angiotensin II type I receptor antagonist azilsartan reduces emotionality in mice exposed to unpredictable chronic mild stress. J. N. PARRISH*; M. SENEY; S. PIANTADOSI; B. FRENCH; H. OH; A. SVED; E. SIBILLE. *Univ. of Pittsburgh, Univ. of Pittsburgh, Ctr. for Neurosci., Univ. of Pittsburgh.*

9:45 **287.08** GLO1 inhibition as a novel fast-acting antidepressant. K. M. MCMURRAY*; A. A. PALMER. *Univ. of Chicago.*

10:00 **287.09** Deep brain stimulation of themedian forebrain bundle reverses anhedonia in a chronic stress model of depression. P. COTTON; A. J. FENOY*. *Univ. of Texas, Mischer Neurosurgical Associates.*

10:15 **287.10** ● DBS of the BNST for treatment resistant OCD. L. ISLAM*; R. RANIERI; G. MESSINA; A. FRANZINI; S. SCARONE; O. GAMBINI. *Ospedale San Paolo, Univ. of Milan, Inst. Neurologico Carlo Besta, Ospedale San Paolo.*

10:30 **287.11** Corticosteroid treatment increases sensitivity to behavioral effects of fluoxetine in C57BL/6J mice. S. A. ROBINSON*; B. R. BROOKSHIRE; I. LUCKI. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

10:45 **287.12** Paroxetine modulates Nociceptin/Orphanin FQ and partially reverses mechanical and thermal allodynia in an animal model of post-traumatic stress disorder and chronic pain. P. DIB; Y. ZHANG; C. D. SIMPSON-DURAND; K. M. STANDIFER*. *Univ. of Oklahoma HSC Col. of Pharm., Col. of Med., Univ. of Oklahoma HSC.*

11:00 **287.13** Fear extinction facilitation by fluoxetine is mediated by basolateral amygdala endocannabinoids. O. GUNDUZ CINAR*; S. FLYNN; R. CINAR; T. S. RAMIKIE; G. KUNOS; S. PATEL; A. HOLMES. *NIAAA/NIH, Vanderbilt Univ. Med. Ctr.*

NANOSYMPOSIUM

288. Eye Movements and Perception

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 144A

8:00 **288.01** Remapping of multiple object features across eye movements. A. Z. KHAN*; Y. NAM; K. YOUNGWOOK; G. BLOHM. *Univ. of Montreal, Queen's Univ., Queen's Univ.*

8:15 **288.02** A state space model for trans-saccadic updating of remembered visual targets. Y. MOHSENZADEH*; D. CRAWFORD. *Ctr. For Vision Research, York U, Canadian Action and Perception Network and NSERC CAN-ACT CREATE Program, Departments of Biology, Psychology, and Kinesiology & Hlth. Sciences, York Univ.*

8:30 **288.03** A model of perisaccadic receptive field remapping in LIP predicts a moving wave of activity across the cortex. M. ZHANG*; S. WU; S. GUAN; C. FUNG; X. WANG; M. GOLDBERG. *Beijing Normal Univ., Hong Kong Univ. of Sci. and Technol., Columbia Univ. Col. of Physicians and Surgeons.*

8:45 **288.04** Gamma coherence accompanies receptive field remapping in monkey area V4. S. NEUPANE*; D. GUITTON; C. C. PACK. *Montreal Neurolog. Inst.*

9:00 **288.05** Continuous perception: Interactions between saccadic remapping and temporal integration windows. D. MELCHER*; A. WUTZ; E. MUSCHTER; A. FRACASSO. *Univ. of Trento, Univ. of Trento, Utrecht Univ.*

9:15 **288.06** Remapping of touches on the skin during saccades. V. HARRAR; H. FRENZ; L. R. HARRIS; M. LAPPE*. *Univ. of Montreal, York Univ., Inst. for Psychology.*

9:30 **288.07** Visual remapping is more impaired in patients with unilateral parietal lesion than in hemidecorticate patients as revealed by novel version of the double step task. K. RATH-WILSON*; D. GUITTON. *Montreal Neurolog. Inst.*

9:45 **288.08** Controlling attention at the microscopic scale. M. POLETTI*; M. RUCCI. *Boston Univ., Boston Univ.*

10:00 **288.09** Spatial compression: A consequence of relocalizing following disruption of the visual stream by masks or saccades. P. CAVANAGH*; S. BORN; E. ZIMMERMANN. *Univ. Paris Descartes, CNRS UMR 8242, Inst. of Neurosci. and Med.*

10:15 **288.10** The dynamics of transsaccadic attention shifts in area MT of the macaque. T. YAO*; S. TREUE; S. KRISHNA. *German Primate Ctr., Bernstein Ctr. for Computat. Neurosci., Goettingen Univ.*

10:30 **288.11** Visual coding in the superior colliculus during free-viewing of natural dynamic stimuli. B. J. WHITE*; D. BERG; L. ITTI; D. P. MUNOZ. *Queen's Univ., IBM Res., USC, Queen's Univ.*

10:45 **288.12** Spatiotopic vs. retinotopic mechanisms of trans-saccadic feature integration: An fMRIa paradigm. B. BALTARETU*; B. T. DUNKLEY; S. MONACO; J. D. CRAWFORD. *York Univ., York Univ., York Univ., York Univ., York Univ., Hosp. for Sick Children, York Univ.*

11:00 **288.13** Computational modeling evidence for a contribution of predictive eye position to the remapping of visual receptive fields. H. RAO*; F. SHEN; J. SANJUAN; K. RAFIE; J. VILLA; M. A. SOMMER. *Duke Univ.*

NANOSYMPOSIUM

289. The Cells and Molecules of Touch, Itch, and Thermoreception

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 143A

8:00 **289.01** Optical stimulation of keratinocytes activates cutaneous nociceptors. K. M. BAUMBAUER*; J. J. DEBERRY; P. C. ADELMAN; R. H. MILLER; B. M. DAVIS; K. M. ALBERS; H. R. KOERBER. *Univ. of Pittsburgh.*

8:15 **289.02** Control of spinal somatosensory and motor neural circuits by delta opioid receptors. V. L. TAWFIK; D. WANG; S. A. LOW; B. L. KIEFFER; A. I. BASBAUM; G. SCHERRER*. *Stanford Univ., McGill Univ., Univ. of California San Francisco, Stanford Univ.*

8:30 **289.03** Characterization of action potential discharge in chloroquine (CQ) and histamine-sensitive "itch nerves" terminating in mouse skin. F. RU; A. HERBSTOMER; S. MEEKER; X. DONG*; B. J. UNDEM. *Johns Hopkins Univ., Johns Hopkins Univ.*

8:45 **289.04** The BNP-NPRA pathway functions independent of the GRP-GRPR pathway for itch sensation. D. M. BARRY*; X. LIU; L. WAN; F. HUO; H. LI; Z. ZHAO; Z. CHEN. *Washington Univ. Sch. of Med.*

9:00 **289.05** Cold inhibits acute itch mediated by multiple pruritic pathways. R. PALKAR*; E. K. LIPPOLDT; D. D. MCKEMY. *USC.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:15 **289.06** Heat responses in larval zebrafish: Escape, thermotaxis and arousal. T. YOKOGAWA*; M. IADAROLA; H. A. BURGESS. *NICHD, NIH.*

9:30 **289.07** Dissection of genetic and molecular bases of noxious cold detection using *Drosophila* larvae. H. N. TURNER*; K. ARMENGOL; S. IYER; L. SULLIVAN; E. R. IYER; C. LANDRY; D. N. COX; M. J. GALKO. *MD Anderson Cancer Ctr., George Mason Univ., ProDev Engin.*

9:45 **289.08** A TRPV channel is required in recurved bristles on the wing margin of *Drosophila* to mediate its repulsive behaviors in response to mechanical stimulation. W. ZHANG*; J. LI; L. Y. JAN; Y. JAN. *HHMI/UCSF.*

10:00 **289.09** Bats have evolved unique sensorimotor circuitry to support mammalian flight. K. L. MARSHALL*; M. CHADHA; L. A. DESOUZA; S. STERBING-D'ANGELO; C. F. MOSS; E. A. LUMPKIN. *Columbia Univ., Univ. of Maryland, Columbia Univ., Univ. of Maryland, Univ. of Maryland, Columbia Univ.*

10:15 **289.10** Edge-orientation processing in first-order tactile neurons. A. PRUSZYNSKI*; R. S. JOHANSSON. *IMB Physiology, Umea Univ.*

10:30 **289.11** What the hand tells the brain: Predicting the responses of every cutaneous afferent in the hand to arbitrary spatio-temporal stimuli. S. J. BENSMAIA*; B. RAYHAUN; H. P. SAAL. *Univ. of Chicago.*

10:45 **289.12** Modeling pain discrimination in zebrafish: A way forward for unbiased analgesic discovery. A. CURTRIGHT; S. GOH; M. ROSSER; B. KEOWN; J. SHARIFI; E. WAGNER; A. K. DHAKA*. *The Univ. of Washington.*

NANOSYMPOSIUM

290. Neural Mechanisms of Energy Balance Regulation and Obesity

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 147B

8:00 **290.01** Neurophysiological properties of hypothalamic glutamate neurons in the perifornical area. D. J. SPERGEL; A. ZAYACHKIVSKY; A. N. VAN DEN POL*. *Yale Univ. Sch. Med.*

8:15 **290.02** Blockade of AMPA/kainate receptors in the central nucleus of the amygdala reduces cisplatin-induced malaise likely through direct hindbrain projections. A. L. ALHADEFF; R. A. HOLLAND; B. C. DE JONGHE*. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

8:30 **290.03** ▲ Diet composition is more important than caloric intake or body weight in remodeling the electrical properties of AgRP/NPY neurons in the arcuate nucleus of the hypothalamus. K. PHAM; A. SMITH; K. O'CONNELL*. *Univ. of Tennessee Hlth. Sci. Ctr.*

8:45 **290.04** Maternal high fat diet consumption decreases dopamine signaling in prefrontal cortex of non-human primate (NHP) juvenile offspring. H. M. RIVERA*; E. L. SULLIVAN; P. KIEVIT; M. A. KIRIGITI; L. BAUMAN; S. R. LINDSLEY; K. BAQUERO; P. BLUNDELL; T. A. DEAN; M. S. SMITH; K. L. GROVE. *Oregon Natl. Primate Res. Ctr.*

9:00 **290.05** Serotonergic neurons mediate hunger in adult *Drosophila.* S. D. ALBIN*; K. R. KAUN; J. KNAPP; P. M. CHUNG; U. HEBERLEIN; J. H. SIMPSON. *Janelia Farm, Brown Univ.*

9:15 **290.06** Nos1 neurons of the paraventricular nucleus of the hypothalamus control feeding and energy expenditure. A. K. SUTTON*; H. PEI; K. H. BURNETT; C. J. RHODES; M. G. MYERS JR.; D. P. OLSON. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Chicago.*

9:30 **290.07** PACAP within the central nucleus of the amygdala reduces food intake via the melanocortin and the BDNF/TRKB systems. A. FERRAGUD FAUS*; A. IEMOLO; P. COTTONE; V. SABINO. *Boston Univ., Boston Univ.*

9:45 **290.08** Maternal high-fat diet (HFD) increases anxiety-like behavior and reduces the number of oxytocin (OT)-positive neurons in the paraventricular nucleus of the hypothalamus (PVN) in adult male offspring. S. KOJIMA; L. M. RINAMAN*. *Univ. Pittsburgh, Univ. Pittsburgh.*

10:00 **290.09** Molecular determinants of the palatability of snack food and their effects on whole brain activity patterns. T. HOCH; S. KREITZ; M. PISCHETSRIEDER; A. HESS*. *Food Chem. Unit, Inst. of Pharmacol. & Toxicology, I.F. Pharmacol & Toxicol.*

10:15 **290.10** Estrogen-responsive Tac1 neurons in the ventrolateral region of the ventromedial hypothalamus (VMHvl) selectively regulate physical activity and body weight in female mice. S. CORREA*; D. W. NEWSTROM; J. P. WARNE; P. FLANDIN; C. C. CHEUNG; A. T. LIN-MOORE; A. A. PIERCE; A. W. XU; J. L. RUBENSTEIN; H. A. INGRAHAM. *Univ. of California San Francisco, Univ. of California San Francisco, Univ. of California San Francisco, Univ. of California San Francisco.*

10:30 **290.11** Deciphering the wiring diagram of the AGRP neuronal circuit. M. J. KRASHES*; B. SHAH; D. OLSON; N. UCHIDA; B. LOWELL. *NIH, Beth Israel Deaconess Med. Ctr., Univ. of Michigan, Harvard Med. Sch.*

10:45 **290.12** Olfactory-bulbar prokineticin-2 is involved in the regulation of food intake and glucose homeostasis. M. MORTREUX; N. KASSIS; S. MIGRENNE-LI; C. MAGNAN*. *Univ. Paris Diderot.*

11:00 **290.13** ● Exercise induces hippocampal BDNF through a PGC-1alpha/FNDC5 pathway. C. D. WRANN*; J. P. WHITE; J. SALOGIANNIS; D. MA; J. D. LIN; M. E. GREENBERG; B. M. SPIEGELMAN. *Dana-Farber Cancer Inst., Harvard Med. Sch., Harvard Med. Sch., Life Sci. Inst. and Dept. of Cell and Developmental Biol.*

NANOSYMPOSIUM

291. Sleep and Memory

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 206

8:00 **291.01** Identification of a single nucleotide substitution specific to the sleepy mutant mouse pedigree by linkage analysis and whole exome sequencing. H. FUNATO*; C. MIYOSHI; M. SATO; A. IKKYU; N. HOTTA; M. KAKIZAKI; S. KANNO; K. HARANO; F. ASANO; T. FUJIYAMA; T. SUZUKI; S. WAKANA; M. YANAGISAWA. *Toho Univ. Sch. of Med., Univ. Tsukuba, WPI-IIIS, Univ. Texas Southwestern Med. Ctr., RIKEN-BRC, HHMI.*

8:15 **291.02** Identification of a molecular mechanism for daytime-dependent hippocampal memory performance. O. RAWASHDEH*; J. FAHRENKRUG; J. H. STEHLE. *Goethe Univ. Frankfurt, Univ. of Copenhagen.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:30 **291.03** A complex processive stressor, conditioned fear, disrupts PERIOD1 expression in a manner similar to systemic stressors, in the rat central extended amygdala. S. AL-SAFADI*; A. AL-SAFADI; M. BRANCHAUD; S. RUTHERFORD; A. DAYANANDAN; B. ROBINSON; S. AMIR. *Concordia Univ.*

8:45 **291.04** Chronic sleep fragmentation leads to pro-apoptotic signaling in locus coeruleus of aged mice. A. STERN*; N. NAIDOO. *The Univ. of Pennsylvania.*

9:00 **291.05** Total sleep deprivation in rats for 8 hours using an automated air puff system does not increase activity of the hypothalamic-pituitary-adrenal axis. B. A. GROSS*; D. DAVIS; C. FITZPATRICK; K. PRABHU; L. URPA; G. R. POE. *Univ. Michigan, Univ. of Michigan, Univ. of Michigan.*

9:15 **291.06** Wake neuron degeneration and lasting wake impairments in chronic sleep disruption. S. C. VEASEY*; Y. ZHU; L. YU; G. ZHAN; P. FENIK. *Univ. Pennsylvania, Univ. of Pennsylvania, Norman Bethune Col. of Med.*

9:30 **291.07** Restoration of phosphorylated eukaryotic translation initiation factor 4E binding protein 2 (4EBP2) in the hippocampus rescues memory impairment due to sleep deprivation. J. H. CHOI*; E. J. DAVIS; R. HAVEKES; T. ABEL. *Univ. of Pennsylvania.*

9:45 **291.08** Sleep promotes memory retention by blocking dopamine neuron based forgetting. J. A. BERRY*; I. CERVANTES-SANDOVAL; R. L. DAVIS. *The Scripps Res. Inst. Florida.*

10:00 **291.09** 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.*

10:15 **291.10** The clock gene period differentially regulates sleep and memory in *Drosophila.* R. FROPF*; J. C. P. YIN. *Univ. of Wisconsin Madison.*

10:30 **291.11** Hypocretin and norepinephrine interactions in zebrafish larvae. G. OIKONOMOU*; C. SINGH; D. A. PROBER. *Caltech.*

NANOSYMPOSIUM

292. Reward: Physiology and Connectivity

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 150B

8:00 **292.01** Resting state connectivity in adolescent marijuana users. D. A. YURGELUN-TODD*; M. P. LOPEZ-LARSON. *The Brain Institute, Univ. of Utah, Univ. of Utah.*

8:15 **292.02** Intrinsic functional connectivity of dorsal versus ventral striatum in healthy adolescents: Age-related trends and behavioral correlates. M. LUCIANA*; P. F. COLLINS; J. CAMCHONG. *Univ. of Minnesota, Univ. of Minnesota.*

8:30 **292.03** Development of the intrinsic functional connectivity of reward and salience circuitries. M. ERNST*; B. BENSON; P. KUNDRU; W. LUH; P. BANDETTINI; D. S. PINE. *NIMH-NIH, Cornell Univ., NIH.*

8:45 **292.04** Opposite patterns of amygdala and ventral striatum reactivity predict stress-related risk of alcohol use disorders. Y. S. NIKOLOVA*; A. R. HARIRI. *Duke Univ.*

9:00 **292.05** COMT and serotonin transporter alleles as predictors of hypnotic susceptibility. K. WANNIGMAN*; R. BLACKWELL; E. GAHTAN. *Humboldt State Univ., Humboldt State Univ., Humboldt State Univ.*

9:15 **292.06** The structural scaffolding of functionally defined networks predicts individual differences in cognitive function. N. REGGENTE*; J. RISSMAN. *UCLA.*

9:30 **292.07** Meta-analysis of sex difference in human hippocampal volume. L. S. ELIOT*; A. TAN; W. MA; A. VIRA; R. ADAMCZYK. *Rosalind Franklin Univ. Med. & Sci.*

9:45 **292.08** Psychophysiological investigations of individual differences using eeg and fmri. J. CIORCIARI*; J. GOUNTAS. *Swinburne Univ. of Technol., Murdoch Univ.*

10:00 **292.09** ▲ Differences in inhibitory control in adolescents with and without loss of control (LOC) eating: A potential role of the dorsolateral prefrontal cortex (dlPFC) in motor inhibition and peer interaction. D. M. BONGIORNO*; A. VANNUCCI; E. E. NELSON; J. JARCHO; L. B. SHOMAKER; L. M. HANNALLAH; K. R. THEIM; S. E. FIELD; S. M. BRADY; C. K. PICKWORTH; M. V. GRYGORENKO; T. CONDARCO; A. P. DEMIDOWICH; D. S. PINE; M. TANOFSKY-KRAFF; J. A. YANOVSKI. *Natl. Inst. of Mental Hlth., Natl. Inst. of Child Hlth. and Human Develop., Uniformed Services Univ. of the Hlth. Sci., Colorado State Univ.*

10:15 **292.10** Risky decision-making in adolescent girls: The role of gonadal hormones at puberty. Z. A. OP DE MACKS*; S. BUNGE; L. KRIEGSFELD; A. KAYSER; R. DAHL. *UC Berkeley, UCSF.*

NANOSYMPOSIUM

293. Extended Amygdala Circuits and Behavior

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, 150A

8:00 **293.01** Multiple modes of noradrenergic modulation of glutamatergic transmission onto corticotropin releasing factor neurons in the bed nucleus of the stria terminalis. Y. SILBERMAN*; D. G. WINDER. *Vanderbilt Univ. Sch. of Med.*

8:15 **293.02** Ontogeny of molecular changes in the amygdala induced by odor-shock learning. L. DIAZ-MATAIX*; E. SANTINI; E. C. SARRO; R. E. PERRY; L. TALLOT; J. E. LEDOUX; E. KLANN; V. DOYERE; R. M. SULLIVAN. *New York Univ., Nathan Kline Inst., New York Univ. Sch. of Med., NYU Sackler Inst. for Grad. Biomed, NYU Langone Med. Ctr., New York Univ. Sch. of Med., NYU Sackler Inst. for Grad. Biomed. Sci., Univ. Paris XI/CNRS.*

8:30 **293.03** Neural circuitry underlying extinction of trace fear conditioning. M. SEHGAL*; T. S. BULA; N. B. FETTINGER; J. R. MOYER, Jr. *Univ. of Wisconsin-Milwaukee, Univ. of Wisconsin- Milwaukee.*

8:45 **293.04** Real-time measurement of norepinephrine dynamics in the ventral bed nucleus of the stria terminalis during drug withdrawal and aversive stimuli. R. WIGHTMAN*; M. E. FOX; E. S. BUCHER. *Univ. North Carolina, Univ. North Carolina.*

9:00 **293.05** Dynorphin controls the gain of an amygdalar anxiety circuit. N. A. CROWLEY*; T. KASH. *UNC, UNC.*

9:15 **293.06** The extended amygdala also mediates appetitive states. M. A. WARACZYNSKI*; A. SCHULTZ. *Univ. Wisconsin Whitewater.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:30 **293.07** High traumatic stress reactivity is associated with escalated alcohol drinking and altered stress peptides in prefrontal-amygdala circuitry. N. W. GILPIN*; E. A. ROLTSCH; B. B. BAYNES; A. M. WHITAKER; B. A. BAIAMONTE; Y. LU; H. N. RICHARDSON. *Louisiana State Univ. Hlth. Sci. Ctr., Univ. of Massachusetts.*

9:45 **293.08** Extended amygdala modulates midbrain dopamine populations during cocaine seeking. S. V. MAHLER*; G. ASTON-JONES. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

10:00 **293.09** Examining the influence of central amygdale neurotensin neurons on ethanol behaviors. Z. A. MCELLIGOTT*; P. KANTAK; S. FACCIDOMO; G. PATEL; C. HODGE; G. STUBER. *Univ. of North Carolina, Chapel Hill.*

10:15 **293.10** Anatomical connectivity of the bed nucleus of the stria terminalis in humans. S. AVERY; J. CLAUSS; J. U. BLACKFORD*. *Vanderbilt Univ., Vanderbilt Univ.*

POSTER

294. Neurogenesis

Theme A: Development

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 A1 **294.01** ▲ *In vivo* screening of candidate regulators of stem cell self renewal in the developing embryo. K. L. MCGUIRE*; C. RUSSO; K. MCKAY; M. TAYLOR. *Grand Valley State Univ.*

9:00 A2 **294.02** Conditional loss of Fibroblast growth factor 10 (Fgf10) perturbs neurogenesis in the postnatal mouse hypothalamus. M. K. HAJIHOSSEINI*; T. GOODMAN; M. MICKOLAJCZAK; C. STRATFORD; A. LOVEDAY; S. MANSOUR; S. BELLUSCI; R. RICE. *Univ. of East Anglia, Univ. of Utah, Univ. Justus Liebig Giessen, Univ. of Helsinki.*

10:00 A3 **294.03** Four factors control self-renewal of cortically specified human multipotent neural cells. B. V. VARGA*; M. FAIZ; A. NAGY. *Mount Sinai Hospital/ Lunenfeld-Tanenbaum Res.*

11:00 A4 **294.04** The mode of neurogenesis regulates the subtype of MGE-derived interneurons. T. J. PETROS*; R. S. BULTJE; M. E. ROSS; G. FISHELL; S. ANDERSON. *New York Univ., Weill Cornell Med. Col., Children's Hosp. of Philadelphia.*

8:00 A5 **294.05** ▲ Characterization of candidate genes that regulate stem cell differentiation in the developing chick embryo. C. RUSSO*; K. MCKAY; K. MCGUIRE; M. TAYLOR. *Grand Valley State Univ., Grand Valley State Univ.*

9:00 A6 **294.06** Dynamic expression of lncRNAs during mouse retinogenesis. B. CLARK*; C. ZIBETTI; S. BLACKSHAW. *Johns Hopkins Univ.*

10:00 A7 **294.07** Met signaling maintains quiescence of neural stem cells in the adult dentate gyrus. D. A. BERG; R. P. STADEL; M. A. BONAGUIDI; G. MING; H. SONG*. *Johns Hopkins Univ. SOM, Inst. for Cell Engin., Johns Hopkins Univ. SOM.*

11:00 A8 **294.08** Identification of a sustained neurogenic zone at the dorsal surface of the adult mouse hippocampus and its regulation by the chemokine SDF-1. A. BELMADANI; D. REN; B. BHATTACHARYYA; T. J. HOPE; H. PERLMAN; R. J. MILLER*. *Northwestern Univ. Chicago, Northwestern Univ. Chicago, Northwestern Univ. Chicago, Northwestern Univ. Ward 8-296.*

8:00 A9 **294.09** Differential levels of β-catenin promote distinct neural stem cell fates and produce diverse murine neocortices with features from reptiles to higher mammals. S. KIM*; L. CREGAN; T. BURNS; Z. JIA; T. BAKER; Q. WU; E. FEARON; Y. ZHU. *Children's Natl. Med. Ctr., Univ. of Michigan, Shanghai Jiao Tong Univ., Univ. of Michigan, Children's Natl. Med. Ctr.*

9:00 A10 **294.10** Retinal ganglion cell genesis and subtype determination in the binocular circuit. F. MARCUCCI*; Q. WANG; C. SOARES; S. KHALID; C. MASON. *Columbia Univ., Barnard Col.*

10:00 A11 **294.11** Spatiotemporal regulation of cerebellar neural progenitor identities by transcription factors. M. HOSHINO*; Y. SETO; T. NAKATANI; Y. KAWAGUCHI; K. IKENAKA; H. TAKEBAYASHI; Y. ONO; M. YAMADA. *Natl. Inst. of Neuroscience, NCNP, KAN Res. Inst., Kyoto Univ., Natl. Inst. of Physiological Sci., Niigata Univ.*

11:00 A12 **294.12** TGF-beta and Notch pathway in cell fate decision of adult neural stem cells from the subventricular zone. P. MATHIEU*; A. ADAMO. *IQUIFIB - UBA, IQUIFIB-UBA-CONICET.*

8:00 A13 **294.13** Severe hypoxia affects proliferation and differentiation of distinct human cortical progenitors. J. ORTEGA*; C. SIROIS; N. ZECEVIC. *Univ. of Connecticut Hlth. Ctr.*

9:00 A14 **294.14** Involvement of the M1 muscarinic and α7 nicotinic receptors in the effect of galantamine on adult hippocampal neurogenesis. H. KOSUKE*; Y. KITA; K. ASADA; E. TAKANO; Y. AGO; K. TAKUMA; T. MATSUDA. *Osaka Univ., Unit-Grad. Sch. of Child Dev., Osaka Univ.*

10:00 A15 **294.15** Genome-wide profiling of LHX2 binding sites reveals its regulatory role in committed early post-natal retinal precursors. C. ZIBETTI*; J. HU; W. HWANG; D. O'BRIEN; H. ZHANG; J. QIAN; S. BLACKSHAW. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*

11:00 A16 **294.16** The hierarchy of early human neurogenesis:The Fox and the Cat tale. I. BYSTRON*; C. BLAKEMORE. *Univ. of Oxford.*

8:00 A17 **294.17** Inducible knockout of Mef2A, C, and D from nestin-expressing stem cells, progenitors, and their progeny impairs hippocampal neurogenesis *in vivo.* S. E. LATCHNEY*; Y. JIANG; D. PETRIK; J. HSIEH; A. J. EISCH. *UT Southwestern Med. Ctr., UT Southwestern Med. Ctr.*

9:00 A18 **294.18** Growth factor removal and acidic changes affect the mayor proteolytical systems and neuronal differentiation on neural precursor cells (NPCs). M. CARDENAS-AGUAYO*; L. GÓMEZ-VIRGILIO; M. MERAZ-RÍOS. *CINVESTAV-IPN.*

10:00 A19 **294.19** Regulating the production of functional neurons from neural stem cells. N. MICALI*; M. DIAZ-BUSTAMANTE; N. OLIVARES; D. J. HOEPPNER; R. D. MCKAY. *Lieber Institute For Brain Development.*

11:00 A20 **294.20** A novel role of exon junction complex (EJC) factor in neurodevelopment. D. ZOU; C. MCSWEENEY; F. DONG; Y. ZHOU; D. DENG; Y. MAO*. *PSU, Guangxi Med. Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 A21 **294.21** Survival and differentiation of new cells in the hippocampus of adult and aged mice following an immune challenge. A. LITTLEFIELD*; S. SETTI; C. DIAZ; C. PRIESTER; E. GUENDNER; R. A. KOHMAN. *Univ. of North Carolina At Wilmington, Univ. of North Carolina At Wilmington, Univ. of North Carolina At Wilmington.*

POSTER

295. Transplantation

Theme A: Development

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 A22 **295.01** The effect of trans-arterial transplantation of allogeneic mesenchymal stem cells in transient ischemic model of rats: An analysis of therapeutic time window. A. TOYOSHIMA*; T. YASUHARA; M. KAMEDA; J. MORIMOTO; H. TAKEUCHI; T. SASAKI; S. SASADA; A. SHINKO; T. WAKAMORI; M. OKAZAKI; A. KONDOU; T. AGARI; I. DATE. *Okayama Univ. Hosp.*

9:00 A23 **295.02** Do human pluripotent stem cells ameliorate NMDA-induced hippocampal degeneration and related functional deficits? S. K. UPPAL*; J. SAENZ; A. KOPYOV; J. PRIETO; R. W. COHEN; O. KOPYOV. *California State University, Northridge, Celavie Biosciences. LLC.*

10:00 A24 **295.03** Transplantation of human fetal stem cells reveals structural and functional improvements in the spastic Han-Wistar rat model of Ataxia. R. NURYYEV*; T. L. UHLENDORF; A. KOPYOV; J. PRIETO; C. S. MALONE; R. W. COHEN; O. KOPYOV. *California State University, Northridge, Celavie Biosciences. LLC.*

11:00 A25 **295.04** ▲ Efficacy of employing intracerebral ventricle infusion as a means for transplanting human neuronal stem cells. F. MARTINEZ; M. S. SHANMUGAM; A. KOPYOV; J. PRIETO; R. W. COHEN*; O. KOPYOV. *California State University, Northridge, Celavie Biosciences. LLC.*

8:00 A26 **295.05** Effective stages for transplantation of Neuro-2a cells in the postnatal retinal development. E. LEE*; S. JEONG; Y. HUH; C. JEON. *Kyungpook Natl. Univ., Biol. and KNU Creative BioResearch Group (BK21), Kyungpook Natl. Univ.*

9:00 A27 **295.06** Mice with human immune systems serve as models for human neural stem cell transplant acceptance. J. BIANCOTTI; J. J. BREUNIG; D. GATE; J. RODRIGUEZ JR.; C. N. SVENDSEN; T. C. TOWN*. *USC, Cedars Sinai Med. Ctr., Zilkha Neurogenetic Inst.*

10:00 A28 **295.07** Functional integration of retinal ganglion cells after *in vivo* transplantation. P. VENUGOPALAN*; L. SCHENK; Y. WANG; K. MULLER; J. GOLDBERG. *Univ. of California San Diego, Univ. of Miami*.

11:00 A29 **295.08** Optogenetic modulation of striatal fetal ventral mesencephalic dopaminergic transplants in hemiparkinsonian rats. T. SUBRAMANIAN*; K. VENKITESWARAN; Z. LIU; T. P. GILMOUR; B. ZHANG; C. A. LIU; M. DAWSON; C. WHITE; E. HANDLY; M. P. SUBRAMANIAN; C. RAMAKRISHNAN; K. DEISSEROTH. *Penn State Hershey Med. Ctr. & Col. Med., The Pennsylvania State Univ., John Brown Univ., Buck Inst. for Res. on Aging, Stanford Univ.*

8:00 A30 **295.09** ▲ Anterior-posterior neural axis plasticity in xenopus laevis. V. ANASTAS*; R. HUYCK; L. BOLKHOVITINOV; M. WONG; M. SAHA. *Col. of William and Mary.*

9:00 A31 **295.10** Migration of embryonic stem cell-derived neural progenitors on the host vasculature in the brain. C. LASSITER*; S. BECKER; J. GAL; L. GRABEL. *Wesleyan Univ.*

10:00 A32 **295.11** Behavioral effects of stem cell transplatation in an animal model of Alzheimer's disease. A. A. OLIVEIRA*, JR; L. D. BERTUZZI; É. FLUCK; P. S. SILVA; K. T. IRIGARAY; R. NICOLAIDIS; A. A. OURIQUE; A. R. ROSA; P. CHAGASTELLES; P. PRANKE. *UFCSPA - Univ. Federal De Ciências Da Saúde, UFCSPA, UFCSPA, UFRGS.*

11:00 A33 **295.12** ▲ Modulating neural cell degradation of hydrogels using aprotinin-stabilized fibrin. A. B. CARTER*; E. M. PRICE. *Marshall Univ., Marshall Univ.*

8:00 A34 **295.13** Midbrain dopamine neurons derived from human embryonic stem cells sorted for CD142 survive in rodent and primate models of Parkinson's disease. D. J. MARMION*; H. B. DODIYA; S. KRIKS; L. STUDER; J. H. KORDOWER; D. R. WAKEMAN. *Rush Univ., Mem. Sloan-Kettering Cancer Ctr.*

9:00 A35 **295.14** Investigating the potential of stem cell based therapy in an immunotoxin mouse model of Alzheimer's disease. D. TIWARI*; J. HAYNES; J. SHORT; C. POUTON. *Monash Univ.*

10:00 A36 **295.15** Optogenetic interrogation of synaptic inhibition onto granule cells of the dentate gyrus by GABAergic interneuron grafts in the mouse pilocarpine model of temporal lobe epilepsy. J. GUPTA*; K. HENDERSON; G. AARON; J. NAEGELE. *Wesleyan Univ.*

11:00 A37 **295.16** Delaying cortical transplantation improves the angiogenesis, survival and connectivity of grafts thereby favoring recovery of motor function. S. PERON*; M. DROGUERRE; N. BALLOUT; M. BENOIT-MARAND; F. DEBARBIEUX; M. FRANCHETEAU; S. BROT; P. WEBER; G. ROUGON; M. JABER; A. GAILLARD. *Inst. of Physiological Chem., Univ. de Poitiers, Univ. de Marseille-Luminy.*

8:00 A38 **295.17** Generation and characterization of mouse adenovirus induced pluripotent stem cells utilized for transplantation into the YAC128 mouse model of Huntington's disease. A. CRANE*; R. WYSE; G. P. SHALL; S. D. MOORE; A. C. MOORE; K. D. FINK; M. LU; G. L. DUNBAR; J. ROSSIGNOL. *Central Michigan Univ., Central Michigan Univ., Univ. of California - Davis, Central Michigan Univ., Field Neurosciences Inst., Central Michigan Univ.*

POSTER

296. Intrinsic Mechanisms of PNS Regeneration

Theme A: Development

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 A39 **296.01** PTEN conditional knockout in post-embryonic sensory neurons - a mouse model for regeneration studies. S. EATON*; J. A. MARTÍNEZ; D. W. ZOCHODNE. *Univ. of Calgary.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 A40 **296.02** Involvement of ER stress response in axonal regeneration after sciatic nerve injury. M. OÑATE*; A. CATENACCIO; C. HETZ; F. COURT. *P. Catholic Univ. of Chile, Ctr. for Mol. Studies of the Cell, Univ. of Chile, Biomed. Neurosci. Inst., Millennium Nucleus in Regenerative Biol. (MINREB), P. Catholic Univ. of Chile, Neurounion Biomed. Fndn.*

10:00 A41 **296.03** Involvement of c-Jun N-terminal kinase in peripheral nerve regeneration. T. H. NGUYEN; T. KATANO*; S. MATSUMURA; S. ITO. *Kansai Med. Univ.*

11:00 A42 **296.04** Involvement of endothelin in peripheral nerve regeneration. S. ITO*; T. H. NGUYEN; S. MATSUMURA; T. KATANO. *Kansai Med. Univ.*

8:00 A43 **296.05** Expression and manipulation of the APC-β-catenin pathway during peripheral neuron regeneration. A. DURAIKANNU; A. KRISHNAN; J. A. MARTINEZ; D. W. ZOCHODNE*. *Univ. of Calgary, Hotchkiss Brain Inst.*

9:00 A44 **296.06** Different motif requirements of HuD and ZBP1 for binding to the zipcode element of beta-actin mRNA. H. KIM*; S. LEE; S. YOO. *Nemours/A.I.duPont Hosp. for Children, Univ. of South Carolina.*

10:00 A45 **296.07** Melanotransferrin: New homolog genes and their differential expression during intestinal regeneration in the sea cucumber holothuria glaberrima. J. HERNANDEZ-PASOS*; G. VALENTIN-TIRADO; V. MASHANOV; J. E. GARCIA-ARRARAS. *Univ. Puerto Rico Med. Sci. Campus, Univ. Puerto Rico Rio Piedras.*

11:00 A46 **296.08** Intraneural survival, axon extension, and synaptic markers of transplanted mouse and rat motor neurons in a rat: Investigations into potential mechanisms of facilitated peripheral nerve regeneration in a chronic state via neuronal transplant. C. R. CASHMAN*; R. MI; A. HOKE. *Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med.*

8:00 A47 **296.09** AlphaB-crystallin mediates peripheral nerve regeneration. E. F. LIM*; S. T. NAKANISHI; P. J. WHELAN; D. M. ZOCHODNE; S. S. OUSMAN. *Univ. of Calgary, Univ. of Calgary, Univ. of Calgary.*

9:00 A48 **296.10** Temporal dynamic of accelerating axons and molecular determinants in peripheral nerve regeneration. E. C. MA*; N. P. B. AU; G. KUMAR. *City Univ. of Hong Kong, City Univ. of Hong Kong.*

10:00 A49 **296.11** Nuclear localization of BRCA1 is essential for the growth of primary sensory neurons. A. KRISHNAN*; K. PURDY; A. DURAIKANNU; D. ZOCHODNE. *Univ. of Calgary.*

11:00 A50 **296.12** LRP receptors in a novel mechanism of axon pathfinding and peripheral nerve regeneration. L. LANDOWSKI*; M. P. PAVEZ; R. GASPERINI; B. V. TAYLOR; A. K. WEST; L. FOA. *Menzies Res. Inst., Univ. of Tasmania, Menzies Res. Inst., Univ. of Tasmania.*

8:00 A51 **296.13** The expression pattern of Death Associated Protein Kinase (DAPk) in dorsal root ganglion neurons following peripheral nerve injury. M. ALSAADI*; S. SHEHAB; R. AL HAMMADI. *UAEU, UAEU, UAEU.*

9:00 A52 **296.14** CREB and AP1 co-regulate regeneration-associated gene expression and neurite growth on both permissive and inhibitory substrates. T. C. MA*; A. BARCO; D. E. WILLIS; R. R. RATAN. *Burke-Cornell Med. Res. Inst., Inst. de Neurociencias (UMH-CSIC).*

POSTER

297. GABAA Receptors in Circuitry

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 A53 **297.01** Synaptic connections of CRH GABAergic neurons in the central amygdala and bed nucleus stria terminalis. J. G. PARTRIDGE*; R. LUO; P. A. FORCELLI; J. M. CASHDAN; J. SCHULKIN; S. VICINI. *Georgetown Univ. Med. Ctr., Univ. of Washington, Georgetown Univ. Med. Ctr.*

9:00 A54 **297.02** Stimulation of mu opioid receptors in the brainstem inhibits GABAergic interneurons that regulate vagal outflow to the stomach. A. LEWIN*; S. VICINI; R. A. GILLIS; N. SAHIBZADA. *Georgetown Univ. Med. Ctr.*

10:00 A55 **297.03** Trans-synaptic cross-talk mediated by GABAA receptor lateral diffusion. E. DE LUCA*; E. M. PETRINI; P. GOROSTIZA; A. BARBERIS. *Italian Inst. of Technol., Inst. of Bioengineering of Catalonia.*

11:00 A56 **297.04** Optogenetic probing and pharmacology of synaptic connections between striatal GABAergic neurons. N. AL-MUHTASIB; R. LUO; J. G. PARTRIDGE; S. VICINI*. *Georgetown Univ. Med. Ctr., Georgetown Univ. Med. Ctr.*

8:00 A57 **297.05** Tonic $GABA_A$ conductance differentially regulates different types of LTP. A. V. SEMYANOV*; Y. DEMBITSKAYA; Y. WU; T. BRENNER. *Univ. of Nizhny Novgorod, RIKEN Brain Sci. Inst.*

9:00 A58 **297.06** Molecular mechanisms of *in vitro* and *in vivo* inhibitory postsynaptic potentiation. E. PETRINI*; T. RAVASENGA; T. J. HAUSRAT; G. IURILLI; U. OLCESE; V. RACINE; J. SIBARITA; T. C. JACOB; S. J. MOSS; F. BENFENATI; P. MEDINI; M. KNEUSSEL; A. BARBERIS. *Italian Inst. of Technol., Ctr. for Mol. Neurobio. (ZMNH), Inst. of Mol. and Cell Biol., Univ. of Bordeaux, Univ. of Pittsburgh, Tufts Univ.*

10:00 A59 **297.07** Fast and slow synaptic inhibition is targeted to distinct thalamic relay neuron types due to differences in gamma subunit expression. Z. YE; X. YU; C. HOUSTON; N. P. FRANKS; W. WISDEN; S. G. BRICKLEY*. *Imperial Coll.*

11:00 A60 **297.08** Layer II medial entorhinal cortex stellate cells in rat display phase specific post-inhibitory rebound spiking properties. C. F. SHAY; M. FERRANTE; G. W. CHAPMAN*, IV; M. E. HASSELMO. *Boston Univ., Boston Univ., Boston Univ.*

8:00 A61 **297.09** Characterization of a novel subtype of hippocampal interneurons which express corticotropin-releasing hormone. A. HOOPER; J. L. MAGUIRE*. *Tufts Univ. Sch. of Med.*

9:00 A62 **297.10** Enhancement of lateral inhibition in the mouse barrel cortex by deletion of phospholipase C-related catalytically inactive protein-1/2. H. TOYODA*; M. SAITO; H. SATO; T. KAWANO; T. KANEMATSU; M. HIRATA; Y. KANG. *Osaka Univ. Grad. Sch. Dent., Grad. Sch. Biomed. Sci., Hiroshima Univ., Kyushu Univ.*

10:00 A63 **297.11** Post-inhibitory rebound spikes in rat mec layer II/III principal cells: *In vivo, in vitro*, and *in silico* evidence and characterization. M. FERRANTE*; C. F. SHAY; Y. TSUNO; W. CHAPMAN; M. E. HASSELMO. *Boston Univ., Grad. Program for Neurosci. (GPN), Dept. of Psychological and Brain Sci.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 A64 **297.12** *In vitro* gamma oscillations following partial and complete ablation of δ subunit-containing GABA(A) receptors from parvalbumin interneurons. I. FERANDO*; I. MODY. *UCLA, David Geffen Sch. of Med., UCLA, UCLA, David Geffen Sch. of Med.*

8:00 A65 **297.13** δ-GABAA receptor subunits in parvalbumin interneurons control ovarian cycle-linked fluctuations of γ oscillations *in vivo.* A. M. BARTH*; I. FERANDO; I. MODY. *UCLA Sch. of Med., Interdepartmental Grad. Program in Molecular, Cellular, and Integrative Physiology, Univ. of California, Departments of Neurol. and Physiology, The David Geffen Sch. of Medicine, Univ. of California.*

POSTER

298. Sodium Channel Structure Function

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 A66 **298.01** Multi-state modeling of voltage-gated ion channels identifies interacting amino acid residues in the voltage-sensing domains contributing to channel activation. Y. YANG*; M. ESTACION; S. DIB-HAJJ; S. WAXMAN. *VA CT Healthcare Syst., Yale Unversity.*

9:00 A67 **298.02** Novel mechanism of drug action normalizes voltage-gating of certain pain-associated Nav1.7 mutant channels. M. R. ESTACION*; S. D. DIB-HAJJ; S. G. WAXMAN. *Yale Univ. Sch. of Med., Veterans Affairs Med. Ctr.*

10:00 A68 **298.03** Novel $Na_v1.7$ gain-of-function mutation in restless legs syndrome and IEM. J. HUANG*; S. D. DIB-HAJJ; M. VAN ES; P. ZHAO; R. H. TE MORSCHE; J. P. H. DRENTH; S. G. WAXMAN. *Yale Univ. Sch. of Medicine/ Veterans Affairs Med. Ctr., Univ. Med. center, Radboud Univ. Nijmegen Med. Ctr.*

11:00 B1 **298.04** Human sodium channel Nav1.8: enhances persistent current and repetitive firing of DRG neurons. C. HAN*; J. HUANG; M. ESTACION; D. V. VASYLYEV; S. D. DIB-HAJJ; S. G. WAXMAN. *Yale Univ. Sch. of Med., Veterans Affairs Med. Ctr.*

8:00 B2 **298.05** Identification of voltage-gated sodium channels in sensory neurons using calcium imaging. T. A. MEMON*; R. W. TEICHERT; B. M. OLIVERA. *Dept. of Biology, Univ. of Utah.*

9:00 B3 **298.06** Navβ4 in sensory neurons regulates resurgent currents and excitability. C. M. BARBOSA NUNEZ*; R. WANG; W. XIE; Z. TAN; J. A. STRONG; M. R. VASKO; J. ZHANG; T. R. CUMMINS. *Indiana Univ., Univ. of Cincinnati.*

10:00 B4 **298.07** 1,8-cineole reduces the excitability of superior cervical ganglion neurons by a partial blockade of Na+ current. F. W. FERREIRA-DA-SILVA; K. S. SILVA-ALVES*; K. OLIVEIRA-ABREU; O. C. DO VALE; A. A. C. ALBUQUERQUE; A. N. COELHO-DE-SOUZA; J. H. LEAL-CARDOSO. *State Univ. of Ceara, Federal Univ. of Ceara.*

11:00 B5 **298.08** Fgf14 modulates resurgent sodium current in cerebellar purkinje neurons. H. YAN*; J. L. PABLO; G. S. PITT. *Duke Univ. Med. Ctr., Duke Univ. Med. Ctr., Duke Univ. Med. Ctr.*

8:00 B6 **298.09** Down-regulation of Nav1 channels by depolarization or block by TTX boosts burst firing, calcium loading and catecholamine release in mouse chromaffin cells. E. CARBONE*; D. H. F. VANDAEL; M. M. OTTAVIANI; C. LEGROS; N. GUERINEAU; V. CARABELLI. *Univ. of Turin, Univ. of Turin, Univ. of Angers.*

9:00 B7 **298.10** EGFP expression beyond sensory ganglia in an Scn10a promoter-EGFP transgenic mouse line. V. B. LU*; H. L. PUHL, III; S. R. IKEDA. *NIH/NIAAA.*

10:00 B8 **298.11** Sharpness of spike initiation: The compartmentalization hypothesis. R. BRETTE*. *Inst. De La Vision, INSERM, Sorbonne Universités, UPMC Univ. Paris 06, CNRS.*

11:00 B9 **298.12** Alternative splicing in SCN1A: Different drug response and altered spike frequency reliability between neonatal and adult channels. A. LIAVAS*; G. LIGNANI; S. SCHORGE. *Inst. of Neurol.*

8:00 B10 **298.13** Selective block of Nav1.7 increases action potential threshold and decreases thermally evoked action potential firing in sensory neurons of wild type, but not tissue specific Nav1.7 knockout, mice. A. R. BROWN*; S. MCMURRAY; L. CAO; A. ALEXANDROU; C. E. PAYNE; E. B. STEVENS. *Neusentis.*

9:00 B11 **298.14** Hippocampal GABAergic inhibition shows widespread reduction in Nav1.1+/- knock-out mice, animal model of Dravet syndrome. M. A. MANTEGAZZA*; P. SCALMANI; G. BECHI; J. LAVIGNE; B. TERRAGNI; S. FRANCESCHETTI. *Inst. of Mol. and Cell. Pharmacol., Fondazione Inst. Neurologico Besta.*

10:00 B12 **298.15** Modulatory actions of GSK3 on Nav1.6-encoded currents and neuronal excitability. M. N. NENOV*; F. SCALA; Y. ZHANG; E. CROFTON; T. A. GREEN; M. D'ASCENZO; F. LAEZZA. *Univ. of Texas Med. Br., Inst. of Human Physiology, Med. School, Univ. Cattolica.*

11:00 B13 **298.16** GSK3 regulation of Nav1.1 channels. T. F. JAMES*; J. P. ROMANO; N. PANOVA; F. LAEZZA. *Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

8:00 B14 **298.17** Neocortical neurons possess two distinct persistent sodium currents with different voltage dependence and different underlying mechanism of generation. E. LASSER-KATZ; M. J. GUTNICK; I. A. FLEIDERVISH*. *The Hebrew Univ. of Jerusalem, Ben-Gurion Univ. of the Negev.*

9:00 B15 **298.18** ▲ Defining the molecular composition of the axon initial segment of substantia nigra dopaminergic neurons. L. EUGENIN-VON BERNHARDI*; J. JORDAN; A. ALONSO; P. MERINO; P. BOLAM; P. HENNY. *Pontificia Univ. Católica de Chile, Univ. of Oxford.*

10:00 B16 **298.19** Rapid inhibition of voltage-gated sodium channels by estrogen receptor agonists in basal forebrain neurons in young and reproductively senescent female F344 rats. D. W. DUBOIS*; D. MURCHISON; A. FINCHER; S. BAKE; J. TURTLE; W. GRIFFITH. *Texas A&M Univ. Hlth. Sci. Ctr.*

11:00 B17 **298.20** Targeting protein: Protein interaction sites for drug development against voltage-gated sodium channels. S. R. ALI*; N. PANOVA; S. STOILOVA-MCPHIE; F. LAEZZA. *Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

8:00 B18 **298.21** Sodium channel activator-stimulated neurite outgrowth involves the brain-derived neurotrophic factor (BDNF) - Tropomyosin related kinase B (TrkB) signaling pathway. S. MEHROTRA*; W. H. GERWICK; T. F. MURRAY. *Creighton Univ., Univ. of California at San Diego.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 B19 **298.22** Exploring the structure of the voltage-gated Na+ channel by an engineered external drug access pathway for local anesthetics. V. GAWALI; P. LUKACS; A. STARY-WEINZINGER; S. KE; L. RUBI; X. KOENIG; K. HILBER; H. H. SITTE*; H. TODT. *Med. Univ. of Vienna, Univ. of Vienna, Med. Univ. Vienna.*

10:00 B20 **298.23** Influence of polarity on the effect of eugenol on inhibition of tetrotodotoxin-resistant Na+ current in dissociated neurons of rat dorsal root ganglia. T. SANTOS-NASCIMENTO; K. VERAS; F. F. M. SILVA; A. COELHO-DE-SOUZA; T. L. G. LEMOS; J. H. CARDOSO*. *Univ. Estadual do Ceara, Univ. Federal do Ceara.*

11:00 B21 **298.24** Characterization of acid-sensing ion channels in the mouse amygdala. P. CHIANG*; C. LIEN. *Inst. of Neurosci. & Brain Res. Ctr., Natl. Yang-Ming Univ.*

8:00 B22 **298.25** Block of sodium channel Nav1.7 by Dapoxetine. S. LEE; D. KIM; J. CHOI*. *The Catholic Univ. of Korea.*

9:00 B23 **298.26** ▲ Up-regulation of calpain 10a in response to glucose and its possible interaction with sodium channels. L. M. ARRATIA-CORTÉS; A. VILCHES FLORES; A. V. VEGA*. *UBIMED, Fes-Iztacala, UNAM, UBIMED, Fes-Iztacala, UNAM, UBIMED, Fes-Iztacala, UNAM.*

10:00 B24 **298.27** Hippocampal voltage-gated sodium channels are differentially regulated by the homologous molecules FGF13 and FGF14. J. PABLO*; G. S. PITT. *Duke Univ.*

POSTER

299. Ion Channels and Disease States II

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 B25 **299.01** ▲ Assessing the functional role of the C-terminus of a K2P channel. A. MILLER; A. PRINZBACH; S. ESPINOSA DE LOS REYES; E. PRITCHARD; L. M. BOLAND*. *Univ. Richmond.*

9:00 B26 **299.02** Glycosylation site-specific modulation of trafficking and function of the potassium channel Kv3.1b. P. F. VICENTE*; D. KIM; J. CHOI; K. PARK. *Kyung Hee Univ., Catholic Univ. of Korea.*

10:00 B27 **299.03** Conditional deletions of epilepsy associated KCNQ2 and KCNQ3 channels from cerebral cortex cause differential effects on neuronal excitability. H. SOH*; R. PANT; J. J. LOTURCO; A. TZINGOUNIS. *Neurosci. Grad. Program.*

11:00 B28 **299.04** DPP6 regulation of dendritic morphogenesis impacts hippocampal synaptic development. L. LIN*; W. SUN; B. THROESCH; F. KUNG; J. DECOSTE; C. BERNER; L. LONG; J. GUTZMANN; R. CHENEY; B. RUDY; D. HOFFMAN. *NICHD-NIH, Univ. of North Carolina, NYU Sch. Med.*

8:00 B29 **299.05** Distinct developmental expression of G-protein coupled inwardly rectifying potassium (GIRK) channels in cerebellar granule cells in the hemispheres as compared to the vermis. F. BRANDALISE*; R. LUJAN; U. GERBER; P. ROSSI. *Univerity of Zurich, Brain Res. Inst., Fac. of Med., Univerity of Zurich, Univ. of Pavia.*

9:00 B30 **299.06** Kv3.3 channels harbouring a mutation of spinocerebellar ataxia type 13 alter excitability and induce cell death in cultured cerebellar Purkinje cells. T. IRIE*; Y. MATSUZAKI; Y. SEKINO; H. HIRAI. *Div. of Pharmacology, Natl. Inst. of Hlth. Sci., Gunma Univ. Grad. Sch. of Med.*

10:00 B31 **299.07** ● From pan-reactive k_v7 channel opener to subtype selective opener/inhibitor by addition of a methyl group. H. S. JENSEN*; J. KEHLER; C. BUNDGAARD; M. ROTTLANDER; N. SCHMITT; S. M. BLOM. *H. Lundbeck A/S, H. Lundbeck A/S, Zeeland Pharma A/S, Univ. of Copenhagen, Nansen Neurosci. Network.*

11:00 B32 **299.08** Removal of a N-terminal tetrapeptide transforms CXCL12 into a death factor for neural stem cells. T. ADELITA*; R. S. STILHANO; S. W. HAN; G. Z. JUSTO; M. PORCIONATTO. *UNIFESP, UNIFESP, UNIFESP.*

8:00 B33 **299.09** Differential control of axonal and somatic resting potentials by voltage-dependent conductances in cortical layer 5 pyramidal neurons. W. HU*; B. P. BEAN. *Harvard Med. Sch.*

9:00 B34 **299.10** Regulation of neuronal survival by potassium channel interactions with Hax-1. Y. ZHANG*; A. A. SURGUCHEV; M. R. FLEMING; C. HYLAND; V. GAZULA; M. R. BROWN; D. P. JENKINS; K. SZIGETI-BUCK; M. WATERS; T. L. HORVATH; D. NAVARATNAM; P. FORSCHER; L. K. KACZMAREK. *Yale Univ. Sch. Med., Univ. of Florida.*

10:00 B35 **299.11** The contribution of TWIK-1, TREK-1 and Kir4.1 channels to astrocyte passive conductance and membrane potential. Y. DU*; B. MA; W. WANG; C. M. KIYOSHI; C. C. ALFORD; M. ZHOU. *4067 Graves Hall.*

11:00 B36 **299.12** Effects of estrogen on glutamate transporter expression in cultured astrocytes. R. N. CHRISTENSEN*; R. LECHTENBERG; C. LUX; H. SANDOE; A. SCHILLER; P. STORER. *Coe Col., Hastings Col., Central Lee High Sch.*

8:00 B37 **299.13** ● K_V1 coupling to connexin-29 to form "xenotypic" junctions between axons and myelin: Mechanism for removing K^+ may contribute to increased conduction velocity. J. E. RASH*; K. G. VANDERPOOL; T. YASUMURA; J. I. NAGY. *Colorado State Univ., Univ. of Manitoba.*

9:00 B38 **299.14** Automated biophysical characterization of the complete rat Kv-Ion channel family. R. RANJAN*; E. LOGETTE; S. PETITPREZ; M. MARANI; M. HERZOG; E. MULLER; F. SCHUERMANN; H. MARKRAM. *Blue Brain Project, Brain Mind Institute, EPFL.*

10:00 B39 **299.15** Morphophysiological comparison of glial markers and K+ channels in the retinal glial Müller cells of caiman and rat. A. ZAYAS-SANTIAGO; S. AGTE; Y. RIVERA; J. BENEDIKT; J. DÁVILA; A. SAVVINOV; L. A. CUBANO; M. J. EATON*; A. REICHENBACH; S. N. SKATCHKOV. *Univ. Central Del Caribe, Leipzig Univ., Univ. of Puerto Rico, Univ. Central Del Caribe, Univ. Central Del Caribe, Univ. Central Del Caribe.*

11:00 B40 **299.16** Upregulation of extrasynaptic GABAA receptors in Mecp2-/y mice. W. ZHONG; X. JIN; M. F. OGINSKY; B. BONDY; C. JIANG*. *Georgia State Univ.*

8:00 B41 **299.17** Metabolic stimulation by cm-769: A novel function for the sigma-2 receptor. H. E. NICHOLSON*; N. T. WELEDJI; C. MESANGEAU; C. R. MCCURDY; W. D. BOWEN. *Brown Univ., Univ. of Mississippi.*

9:00 B42 **299.18** Control of ryanodine receptor mediated neuronal calcium signaling by steroid hormones. P. KOULEN*. *Univ. of MO - Kansas City.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 B43 **299.19** Selective dynamic range compression of *in vivo* firing of dopamine VTA neurons in KChIP4 knockout mice. K. M. COSTA*; M. SUBRAMANIAM; A. KASHIOTIS; G. SCHNEIDER; J. ROEPER. *Goethe Univ., Goethe Univ.*

11:00 B44 **299.20** Key components of mitochondrial reactive oxygen species (ROS) formation. Dissection of the role of membrane potential and transmembrane pH difference in production of mitochondrial H2O2. V. ADAM-VIZI*; T. KOMLODI; F. GEIBL; M. SASSANI; L. TRETTER. *Semmelweis Univ., MTA-SE Lab. for Neurobiochemistry.*

8:00 B45 **299.21** ● Transforming a high threshold potassium current into a low threshold potassium current using pharmacology that targets Kv3.1 potassium channels. M. R. BROWN*; C. H. LARGE; G. ALVARO; L. EL-HASSAR; L. K. KACZMAREK. *Yale Sch. of Med., Autifony Therapeut. Limited.*

9:00 B46 **299.22** Coupling of distinct ion channel types in neurons mediated by AKAP79/150. J. ZHANG; M. S. SHAPIRO*. *Univ. Texas Hlth. Sci. Ctr., Univ. Texas Hlth. Sci. Ctr.*

10:00 B47 **299.23** ▲ Kinase regulation of a PIP2-insensitive inwardly rectifying potassium channel. E. LEGGETT*; Q. TANG; D. E. LOGOTHETIS; J. BUTLER; L. M. BOLAND. *Univ. of Richmond, Virginia Commonwealth Univ.*

11:00 B48 **299.24** Modulation of intrinsic response dynamics by subthreshold inactivating conductances in rat hippocampal pyramidal neurons. R. K. RATHOUR*; R. NARAYANAN. *Indian Inst. of Sci.*

8:00 B49 **299.25** LTP of mossy fibre input invokes a long-term change in IA in granule cells of cerebellum. A. RIZWAN*; G. W. ZAMPONI; R. W. TURNER. *Univ. of Calgary.*

9:00 B50 **299.26** Dynamic modulation by Trim32 as a novel mechanism for regulating a voltage-gated potassium channel in the brain. E. M. CILENTO*; B. A. BALLIF; A. D. MORIELLI. *Univ. of Vermont, Univ. of Vermont, Univ. of Vermont.*

10:00 B51 **299.27** TWIK-1 is localized to the recycling endosomes in hippocampal astrocytes. C. M. KIYOSHI*; W. WANG; Y. DU; B. MA; C. C. ALFORD; M. ZHOU. *The Ohio State Univ., Tongji Med. College, Huazhong Univ. of Sci. and Technol., First Affiliated Hosp. of Nanjing Med. Univ.*

11:00 B52 **299.28** p38 MAP Kinase regulation of sodium-activated potassium channels in dorsal root ganglion neurons. A. BHATTACHARJEE*; J. FLEITES; S. GURURAJ. *SUNY, Buffalo, SUNY at Buffalo, SUNY at Buffalo.*

8:00 B53 **299.29** Characterization of Slick K(Na) channels in dorsal root ganglion neurons. D. TOMASELLO*; K. DIETZ; A. BHATTACHARJEE. *SUNY at Buffalo, SUNY at Buffalo.*

9:00 B54 **299.30** The Phe932Ile mutation in Slack (Kcnt1) associated with severe epilepsy, delayed myelination and leukoencephalopathy produces a loss-of-function channel phenotype. K. EVELY*; A. BHATTACHARJEE. *Univ. At Buffalo, SUNY at Buffalo.*

10:00 B55 **299.31** Co-activation of TRESK and TRP channels by lysophosphatidic acid balances nociceptive signaling during inflammation. S. KOLLERT*; F. DÖRING; E. WISCHMEYER. *Univ. of Wuerzburg.*

POSTER

300. Synaptic Transmission: Modulation I

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 B56 **300.01** Activation of presynaptic M5 muscarinic receptors differentially modulates glutamate and dopamine transmission from ventral tegmental area release in the striatum. J. SHIN*; M. F. ADROVER; V. A. ALVAREZ. *NIAAA/NIH.*

9:00 B57 **300.02** State-dependent serotonergic excitation of callosal-projection neurons in the mouse prefrontal cortex. E. K. STEPHENS*; D. AVESAR; A. T. GULLEDGE. *Geisel Sch. of Med. At Dartmouth, Dartmouth Col., Univ. of Oregon.*

10:00 B58 **300.03** Oxytocin receptor responses in mature hippocampus: Receptor expression and neuromodulation in CA2, a subfield that contributes to social memory. N. N. TIRKO*; M. MITRE; B. J. MARLIN; R. C. FROEMKE; M. V. CHAO; R. W. TSIEN. *NYU Sch. of Med., NYU Sch. of Med., NYU Sch. of Med., NYU Sch. of Med.*

11:00 B59 **300.04** Regulation of synaptic transmission by leptin in pathway-specific lateral hypothalamic neurons. J. LIU*; G. LI; Z. PANG. *Rutgers, Rutgers Univ.*

8:00 B60 **300.05** Neurotensinergic modulation of glutamatergic neurotransmission in non-dopaminergic neurons of the ventral tegmental area. P. BOSE*; P. ROMPRE; R. WARREN. *Univ. De Montreal, Univ. de Montreal.*

9:00 C1 **300.06** Optogenetic probing of synaptic transmission between Orexin and MCH neurons. J. APERGIS-SCHOUTE*; C. SCHÖNE; C. FAURE; A. ADAMANTIDIS; D. BURDAKOV. *Univ. of Cambridge, MRC Natl. Inst. for Med. Res., Douglas Institute, McGill Univ.*

10:00 C2 **300.07** ▲ Specific mechanosensory defects caused by manipulating dopamine pathways in *Drosophila melanogaster* larvae. D. B. POTTS*; J. S. TITLOW; J. RICE; R. L. COOPER. *Univ. of Kentucky, Univ. of Kentucky, Transylvania Univ.*

11:00 C3 **300.08** NPY signalling modulates inhibitory neurotransmission within the central extended amygdala. J. C. WOOD*; G. LACH; D. VERMA; H. HERZOG; G. SPERK; R. TASAN. *Med. Univ. Innsbruck, Garvan Inst. of Med. Res.*

8:00 C4 **300.09** Dopaminergic facilitation of synaptic transmission in layer II of the lateral entorhinal cortex: The contribution of calcium. I. GLOVACI*; C. A. CHAPMAN. *Concordia Univ.*

9:00 C5 **300.10** Differential effects of methylphenidate and amphetamine on glutamatergic synaptic transmission in Nucleus Accumbens neurons. M. REYES-PRIETO; F. SÁNCHEZ-NIETO; B. PRIETO-GOMEZ; C. REYES-VAZQUEZ*. *Depto. De Fisiología.*

10:00 C6 **300.11** Opposite modulation of spontaneous and evoked transmitter release in layer II/III pyramidal cell in rat somatosensory cortex through 5-HT2 Gq-protein-coupled receptor (GqPCR). F. AGAHARI*; C. STRICKER. *The Australian Natl. Univ., The Australian Natl. Univ.*

11:00 C7 **300.12** Functional operations of cckergic circuitry in the olfactory bulb. S. LIU*; A. PUCHE; M. T. SHIPLEY. *Univ. Maryland, Baltimore.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

301. Synaptic Transmission: Modulation II

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 C8 **301.01** ● Synergistic inhibitory effects of loxoprofen and glycine on the micturition reflex in conscious rats. M. YOSHIZUMI*; K. MATSUMOTO-MIYAI; M. KAWATANI. *Akita Univ. Grad. Sch. of Med.*

9:00 C9 **301.02** HDAC modulation of beta-catenin acetylation in human IPSC-derived neuronal cells. R. KARMACHARYA*; J. IACONELLI; S. BERKOVITCH; J. HUANG; S. Y. CHUNG; S. L. SCHREIBER; S. J. HAGGARTY. *Harvard Univ., Massachusetts Gen. Hosp., Broad Inst. of Harvard and MIT, McLean Hosp., Hunter Col.*

10:00 C10 **301.03** ● Modulation of thalamic burst firing by the kynurenine pathway member Xanthurenic acid. S. A. NEALE*; S. L. S. DUNN; C. S. COPELAND; T. E. SALT. *Neurexpert, UCL Inst. of Ophthalmology.*

11:00 C11 **301.04** Acute alterations of the excitation/inhibition equilibrium interfere with normal visual processing in the adult mouse. M. BRONDI; S. LANDI*; S. SULIS SATO; G. RATTO. *NEST, Scuola Normale Superiore, Nest, Inst. Nanoscience-Cnr, Inst. Nanoscience-Cnr and Scuola Normale Superiore.*

8:00 C12 **301.05** Differential effects of isoflurane on voltage-gated calcium channels subtypes in hippocampal neurons. Z. ZHOU*; D. C. COOK; M. HARA; J. P. BAUMGART; H. C. HEMMINGS, Jr. *Weill Cornell Med. Col., Weill Cornell Med. Col.*

9:00 C13 **301.06** Etomidate blocks LTP *in vitro* by targeting GABAAR α5 subunits on non-pyramidal neurons. F. C. RODGERS*; E. D. ZARNOWSKA; E. ENGIN; R. KEIST; U. RUDOLPH; R. A. PEARCE. *Univ. Wisconsin, Harvard Med. Sch., Univ. of Zurich.*

10:00 C14 **301.07** Endocannabinoid signaling differentially modulates synaptic transmission and plasticity at pPB-CeL synapses. T. CHIEN*; C. LIEN. *Inst. of Neuroscience, Natl. Yang-Ming Univ.*

11:00 C15 **301.08** Ketone bodies prevent GABA rundown in cultured hippocampal neurons. S. T. NAKANISHI; K. T. BARRETT; L. SCOTT; J. M. RHO; M. H. SCANTLEBURY*. *Univ. of Calgary.*

8:00 C16 **301.09** Protein kinase c (pkc) regulation of sympathetic nicotinic acetylcholine receptor-mediated cerebral neurogenic nitrergic vasodilation. P. CHEN; M. CHEN; A. TSAI; L. S. PREMKUMAR*; T. LEE. *Tzu Chi Univ., Tzu Chi Gen. Hosp., SIU, Sch. Med.*

9:00 C17 **301.10** ● Development of an electric field stimulation assay for identification of compounds modulating neuronal excitability and synaptic transmission in primary cortical cultures. C. LINDWALL-BLOM*; Å. JÄGERVALL; M. KARLSSON; P. KARILA. *Cellectricon AB.*

10:00 C18 **301.11** Effect of xenon on inhibitory or excitatory presynaptic nerve terminals. K. NONAKA*; M. SHIN; N. AKAIKE. *Kumamoto Hlth. Sci. Univ., Kumamoto Hlth. Sci. Univ., Kumamoto Hlth. Sci. Unive.*

11:00 C19 **301.12** Etomidate blocks LTP and impairs learning but does not enhance tonic inhibition in the hippocampus of the β3-N265M mice. E. D. ZARNOWSKA*; F. C. RODGERS; I. OH; M. LIAO; V. RAU; R. JURD; U. RUDOLPH; E. I. EGER, 2nd; J. M. SONNER; R. A. PEARCE. *Univ. Wisconsin, Univ. California, Harvard Med. Sch.*

8:00 C20 **301.13** Estrous cycle effects on phasic and tonic dopamine in rat ventral striatum. Q. D. WALKER*; M. J. PUSTEJOVSKY; C. M. KUHN. *Dept Pharmacol. and Cancer Biol.*

9:00 C21 **301.14** Effects of adenosine on inhibitory synaptic transmission and excitation-inhibition balance. P. ZHANG*; N. BANNON; V. ILIN; M. CHISTYAKOVA; M. VOLGUSHEV. *Univ. of Connecticut, Univ. of Connecticut.*

10:00 C22 **301.15** L-type calcium channels in sympathetic α3β2-nAChR-mediated nitrergic neurogenic dilation of the basilar arteries. C. WU; R. LEE; P. CHEN; A. TSAI; M. CHEN; J. KUO; T. J. LEE*. *Tzu Chi Univ., Southern Illinois Univ. Med. Sch.*

POSTER

302. Synaptic Plasticity

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 C23 **302.01** TrkB / Rho signaling interplay during homo- and hetero-synaptic plasticity of dendritic spines. N. G. HEDRICK*; S. C. HARWARD; J. O. MCNAMARA; R. YASUDA. *Duke Univ., Max Planck Florida Inst. for Neurosci.*

9:00 C24 **302.02** Autocrine BDNF rapidly and persistently activates TrkB during single spine structural plasticity. S. C. HARWARD*; N. G. HEDRICK; R. YASUDA; J. O. MCNAMARA. *Duke Univ., Max Planck Florida Inst. of Neurosci.*

10:00 C25 **302.03** Control of cortactin levels by Wnt is necessary for rapid activity dependent synaptic plasticity. C. MALDONADO*; C. DOMINICCI; D. ALICEA; B. MARIE. *Inst. of Neurobio.*

11:00 C26 **302.04** REM sleep-dependent bidirectional regulation of hippocampal long-term potentiation and contextual fear conditioning. P. M. RAVASSARD*; A. HAMIEH; M. A. JOSEPH; N. FRAIZE; P. LIBOUREL; L. LEBARILLIER; S. ARTHAUD; C. MEISSIREL; M. TOURET; G. MALLERET; P. SALIN. *UCLA, Ctr. Natl. de la Recherche Scientifique (CNRS), Univ. Lyon 1, Ctr. Natl. de la Recherche Scientifique (CNRS), Univ. Lyon 1.*

8:00 C27 **302.05** Interaction of the medial amygdala with the hypothalamic attack area. S. E. SMERIN*; M. POTEGAL; R. URSANO; H. LI. *Uniformed Services Univ. of the Hlth. Sci., Univ. of Minnesota.*

9:00 C28 **302.06** Two-photon optogenetics and FRET sensors for studying the role of cGMP in living neurons. J. BOROVAC*; T. LUYBEN; M. KHAN; K. OKAMOTO. *Univ. of Toronto, Samuel Lunenfeld Res. Inst.*

10:00 C29 **302.07** A peptide inhibitor derived from NR2B disrupts CaMKII-NR2B interaction and acutely neuroprotects in cultured cortical neurons exposed to excitotoxic glutamate. A. CHAWLA*; N. M. ASHPOLE; A. HUDMON. *Indiana Univ. Sch. of Med., Univ. of Oklahoma Hlth. Sci. Ctr., Indiana Univ. Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 C30 **302.08** Conversion of a transient Ca^{2+} signaling into a persistent structural modification of dendritic spines by CaMKII/TIAM complex formation during synaptic plasticity. T. SANEYOSHI*; H. MATSUNO; N. HEDRICK; H. MURAKOSHI; R. YASUDA; Y. HAYASHI. *Brain Sci. Institute, RIKEN, The Max Planck Florida Inst., Natl. Inst. for Physiological Sci., Saitama Univ.*

8:00 C31 **302.09** Cypin regulates changes in the functional development of neuronal networks. A. RODRIGUEZ*; M. TRIVEDI; B. FIRESTEIN. *Rutgers Univ., Rutgers Univ.*

9:00 C32 **302.10** Impact of synaptic localization and subunit composition of ionotropic glutamate receptors on synaptic function: Modeling and simulation studies. A. F. KELLER; N. AMBERT; A. LEGENDRE; M. BEDEZ; J. C. BOUTEILLER; S. MOUSSAOUI; S. BISCHOFF; M. BAUDRY*. *Rhenovia Pharma, USC, Western Univ. of Hlth. Sci.*

10:00 C33 **302.11** Properties of CA3-CA3 synapses optimize storage capacity in the CA3 microcircuit. S. J. GUZMAN*; M. FROTSCHER; P. JONAS. *IST Austria Inst. of Sci. and Technol., Inst. for Structural Neurobiogy, Ctr. for Mol. Neurobio. Hamburg (ZMNH).*

11:00 C34 **302.12** ▲ Endocannabinoid-dopamine interactions mediate striatal tLTP that is impaired in Parkinson's disease rodent model. H. XU; Y. CUI; V. PAILLE; B. DELORD; S. GENET; E. FINO; B. DEGOS; S. PEREZ; B. DETRAUX; A. DE KERCHOVE D'EXAERDE; H. BERRY; L. VENANCE*. *Ctr. for Interdisciplinary Res. In Biol. (INSERM 1050/CNRS 7241), Univ. Pierre et Marie Curie, ULB Neurosci. Inst., INRIA.*

8:00 C35 **302.13** Bidirectional endocannabinoid-STDP is controlled by the level of presynaptic adenylyl cyclase inhibition: A model-based experimental study. H. BERRY*; Y. CUI; B. DELORD; S. GENET; L. VENANCE. *INRIA, Ctr. for Interdisciplinary Res. in Biology, Col. de France, INSERM U1050, CNRS UMR7241, Labex Memolife, Inst. des Systemes Intelligents et de Robotique, UMR CNRS 7222, Univ. Pierre et Marie Curie.*

9:00 C36 **302.14** Serotonin and glutamate release in medial prefrontal cortex after cannabidiol treatment. R. LINGE; L. JIMÉNEZ-SÁNCHEZ; L. CAMPA; A. MARTIN; B. ROMERO; E. CASTRO*; A. ADELL; A. PAZOS; A. DIAZ. *Inst. De Biomedicina Y Biotecnologia De Cantabria IBBTEC (UC-CSIC-SODERCAN)., CIBERSAM, Dept. of Neurochemistry and Neuropharmacology, Inst. de Investigaciones Biomédicas de Barcelona, CSIC, IDIBAPS.*

POSTER

303. Oscillations: EEG

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 C37 **303.01** Burst EEG activity during isoflurane anesthesia decreases following microinjection of pentobarbital into the mesopontine tegmental area. P. J. SOJA*; D. NAMJOSHI; S. VUKICEVIC; R. TADAVARTY; T. MARIAM. *Univ. British Columbia.*

9:00 C38 **303.02** Characterization of burst suppression EEG activity during isoflurane anesthesia in the rat. T. MARIAM*; R. TADAVARTY; P. SOJA. *The Univ. of British Columbia, The Univ. of British Columbia.*

10:00 C39 **303.03** Phase dependency of long-range neuronal transmission in entrained neuronal networks: A combined tACS-TMS-EEG study. K. D. FEHÉR*; Y. MORISHIMA. *Univ. Hosp. of Psychiatry Bern.*

11:00 C40 **303.04** Unifying principles for extracellular field potential spectral responses in the human cortex. E. PODVALNY*; N. NOY; M. HAREL; G. CHECHIK; S. BICKEL; A. D. MEHTA; C. E. SCHROEDER; M. TSODYKS; R. MALACH. *Weizmann Inst. of Sci., Bar Ilan Univ., Albert Einstein Col. of Med., Hofstra North Shore-LIJ Sch. of Med., Columbia Univ. Col. of Physicians and Surgeons, Nathan Kline Inst.*

8:00 C41 **303.05** A method for removing tACS artifacts from EEG data. Y. MORISHIMA*; K. D. FEHÉR. *Univ. Hosp. of Psychiatry, Univ. of Bern, Univ. Hosp. of Psychiatry, Univ. of Bern.*

9:00 C42 **303.06** Human amygdala activity during tonic REM sleep and rapid eye movements of REM sleep: An intracranial study. M. CORSI-CABRERA; Y. DEL RÍO-PORTILLA*; J. L. ARMONY; D. TREJO-MARTÍNEZ; M. GUEVARA; F. VELASCO; A. VELASCO. *UNAM, McGill University, Montreal, Canada., Hosp. Gen. de México., Inst. de Neurociencias.Universidad de Guadalajara.*

10:00 C43 **303.07** Hemispheric asymmetry of information flow during sleep and anesthesia. J. SHIN*; M. KIM; S. KU; E. HWANG; S. KIM. *Pohang Univ. of Sci. and Technol., Asan Med. Center, Univ. of Ulsan Col. of Med., Korea Inst. of Sci. and Technol.*

11:00 C44 **303.08** Neurochemical inhibitory and excitatory modulation of human prefrontal circuit synchrony: A MRS/TMS/EEG study. X. DU*; M. TAGAMETS; L. M. ROWLAND; P. KOCHUNOV; A. SUMMERFELT; F. CHOA; J. CHIAPELLI; E. HONG. *Maryland Psychiatric Res. Ctr., Dept. of Electrical Engin. and Computer Sci.*

8:00 C45 **303.09** The role of glutamate and GABA in cortex and thalamus in cortico-thalamo-cortical oscillations: A study in absence epileptic rats. V. D'AMORE; G. VAN LUIJTELAAR; T. VAN RIJN; C. VON RANDOW; I. SANTOLINI; J. MAIRESSE; F. NICOLETTI; R. T. NGOMBA*. *IRCCS Neuromed, Radboud Univ. Nijmegen, LIA (International Associated Laboratories: IRCCS Neuromed, Sapienza University, Italy, and Univ. of Lille, France), Dept. of Physiol. and Pharmacology, Sapienza University, Rome, I.N.M. Neuromed.*

9:00 C46 **303.10** Beta and low-gamma frequency oscillations in an inhibitory network model of the striatum. Z. WU*; A. GUO; X. FU. *Inst. of Biophysics, Chinese Acad. of Sci., Inst. of Neuroscience, Chinese Acad. of Sci., Univ. of Chinese Acad. of Sci.*

10:00 C47 **303.11** DC-EEG potential reflects blood brain barrier (BBB) integrity. V. KIVINIEMI*; V. KORHONEN; J. KORTELAINEN; M. ISOKANGAS; T. SINILUOTO; T. HILTUNEN; T. MYLLYLÄ; E. SONKAJÄRVI; T. SEPPÄNEN; O. KUITTINEN. *Oulu Univ. Hosp., Med. Res. Ctr. (MRC), Oulu Univ., Oulu Univ., Oulu Univ. Hosp., Oulu Univ. Hosp.*

11:00 C48 **303.12** Cortical topography of auditory steady-state response in mice using high density EEG. T. KIM*; Y. JUNG; C. LEE; E. HWANG; Y. SONG; J. CHOI. *Seoul Natl. Univ. Bundang Hosp., Harvard Med. Sch., Seoul Natl. Univ., Ctr. for Neuroscience, Korea Inst. of Sci. and Technol., Univ. of Sci. and Technol.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 C49 **303.13** Burst activity of dopamine neurons modulates network oscillations in the prefrontal cortex. S. LOHANI*; A. MARTIG; I. WITTEN; K. DEISSEROTH; B. MOGHADDAM. *Univ. of Pittsburgh, Princeton Univ., Stanford Univ.*

9:00 C50 **303.14** Probing and rescuing the effects of acute ketamine on cortical gamma band oscillations via optogenetic manipulation of basal forebrain parvalbumin neurons. J. M. MCNALLY; S. THANKACHAN; J. T. MCKENNA*; R. E. STRECKER; R. BASHEER; R. W. MCCARLEY; R. E. BROWN. *VABHS/Harvard Med. Sch., VA Boston Healthcare/Harvard Med. Sch.*

10:00 C51 **303.15** Altered sleep brain network in patients with restless legs syndrome. M. JEONG*; J. CHOI; B. LEE; K. JUNG; K. KIM. *Yonsei Univ., Seoul Natl. Univ. Med. Ctr.*

11:00 C52 **303.16** PKMζ unzipped: Intrahippocampal infusion of zeta inhibitory peptide (ZIP) causes neural silencing. M. J. LEBLANCQ*; T. L. MCKINNEY; C. T. DICKSON. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

8:00 C53 **303.17** How synchronous is neuronal activity in human and animal brain slices during spontaneous and elicited epileptic discharges? E. SPECKMANN*; A. GORJI. *Univ. Munster, Inst. of Physiol. I, Epilepsy Res. Ctr., Shefa Neurosci. Res. Center, Tehran, Iran.*

9:00 C54 **303.18** Hippocampal evoked response variability associated with spontaneous infraslow fluctuations in EEG activity. M. B. DASH*; S. AJAYI; L. FOLSOM; P. E. GOLD; D. L. KOROL. *Syracuse Univ.*

10:00 C55 **303.19** Electrocorticographic oscillatory connectivity predicts low frequency resting state functional magnetic resonance imaging connectivity. D. GROPPE*; P. MÉGEVAND; S. BICKEL; M. MERCIER; C. J. KELLER; M. S. GOLDFINGER; A. MEHTA. *Feinstein Inst. For Med. Res., Feinstein Inst. For Med. Res. and Hofstra North Shore LIJ Sch. of Med., Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

11:00 C56 **303.20** A match made in sleep: Using rhythmic field stimulation to mediate cortico-hippocampal interactions during slow-wave sleep-like states. A. GREENBERG*; T. A. WHITTEN; C. DICKSON. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

8:00 C57 **303.21** Nitrous oxide-induced slow and delta oscillations. K. J. PAVONE*; O. AKEJU; P. L. PURDON; E. N. BROWN. *Massachusetts Gen. Hosp.*

9:00 C58 **303.22** Parvalbumin-positive interneurons play a key role in determining the frequency and power of CA1 theta oscillations in experimentally constrained network models. K. A. FERGUSON*; C. Y. L. HUH; B. AMILHON; S. WILLIAMS; F. K. SKINNER. *Krembil Discovery Tower, Toronto Western Res. Inst., Univ. of Toronto, Douglas Mental Hlth. Univ. Inst, McGill Univ., Univ. of Toronto.*

10:00 C59 **303.23** An automated seizure onset zone detector using high frequency oscillations. S. GLISKE*; W. C. STACEY. *Univ. of Michigan.*

POSTER

304. Dendritic Excitability and Synaptic Integration

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 C60 **304.01** Density, morphology, and function of dendritic spines on dopaminergic neurons of the substantia nigra. Y. SUN; Z. M. KHALIQ*. *NIH/NINDS.*

9:00 C61 **304.02** Imaging glutamate signaling evoked by sensory stimuli in the cerebellar cortex *in vivo.* C. D. WILMS*; M. HAUSSER. *Univ. Col. London.*

10:00 C62 **304.03** Activity-dependent plasticity in tuft dendrites of thick tufted layer 5 pyramidal neurons in the somatosensory cortex. M. SANDLER; J. SCHILLER*. *Technion, Technion.*

11:00 C63 **304.04** Active dendritic integration in L5 pyramidal neurons contributes to sensorimotor learning. G. NATTAR RANGANATHAN*; N. XU; J. C. MAGEE. *Howard Hughes Med. Inst., Chinese Acad. of Sci.*

8:00 C64 **304.05** Can three amino acids define the difference in biochemical properties between the neuronal calcium sensor proteins, Neurocalcin Delta and Hippocalcin? J. VIVIANO*; A. KRISHNAN; M. ANIKIN; V. VENKATARAMAN. *Rowan University- Sch. of Osteo. Med. D.*

9:00 C65 **304.06** Dendritic distribution of synaptic input creates a trade-off between input selectivity and plasticity. M. REMME*; S. SCHREIBER. *Humboldt-Universitaet Zu Berlin.*

10:00 C66 **304.07** Dendritic integration in thalamocortical neurons I: Dendritic properties shape cortical feedback in thalamocortical neurons. A. C. ERRINGTON*; W. M. CONNELLY; V. CRUNELLI. *Inst. of Psychological Med. and Clin. N, Cardiff Univ.*

11:00 C67 **304.08** Impact of SK channels on cortical excitability *in vivo.* T. BOCK*; G. STUART. *John Curtin Sch. of Med. Res.*

8:00 C68 **304.09** Role of calcium-activated potassium currents in the shaping of corticostriatal transmission. M. A. ARIAS*; D. TAPIA; J. BARGAS; E. GALARRAGA. *Inst. de Fisiología Celular UNAM.*

9:00 C69 **304.10** Control of cholinergic synapse-evoked dendritic calcium signals and action potentials by postsynaptic M2 muscarinic receptors in TRN neurons. J. D. PITA-ALMENAR; M. BEIERLEIN*. *Univ. Texas Med. Sch.*

10:00 C70 **304.11** Integration of hippocampal and entorhinal input in CA1 neurons during locomotion. K. C. BITTNER*; J. SUH; S. TONEGAWA; J. MAGEE. *HHMI Janelia Farm, MIT.*

11:00 C71 **304.12** Activity-dependent downregulation of Kv1.2 mediates the heterosynaptic metaplasticity of the direct cortical synaptic responses in CA3 pyramidal cells. J. HYUN*; K. EOM; K. LEE; W. HO; M. KIM; S. LEE. *Dept. of Physiol., Seoul Natl. Univ. Col. of Med.*

8:00 C72 **304.13** Contributions from active dendritic conductances to the Local Field Potential. T. B. NESS*; M. W. H. REMME; G. T. EINEVOLL. *Norwegian Univ. of Life Sci., Norwegian Univ. of Life Sci., Humboldt Univ. Berlin.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

305. Astroglial Homeostasis and Function

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 D1 **305.01** Metabotropic glutamate receptor signaling and β-Amyloid in a tripartite synapse model. R. C. HAVELA*; M. LINNE. *Tampere Univ. of Technol.*

9:00 D2 **305.02** ● Beneficial effects of GFAP/Vimentin reactive astrocytes for axonal remodeling and motor behavioral recovery in mice after stroke. Z. LIU*; Y. LI; Y. CUI; C. ROBERTS; M. LU; M. CHOPP. *Henry Ford Hosp.*

10:00 D3 **305.03** NDRG2 in brain astrocytes and effects of chronic social stress. E. K. FUCHS*; C. ARAYA-CALLIS; G. FLÜGGE. *German Primate Ctr., DFG Res. Ctr. for Mol. Physiol. of the Brain, Med. School, Univ. of Göttingen.*

11:00 D4 **305.04** Astrocytes modulate and are modulated by neural network mode. N. S. LEVINE-SMALL*; K. MUELLER; R. J. GUEBELI*; B. CHOW; W. WEBER; U. EGERT. *Univ. of Freiburg, Univ. of Freiburg, Univ. of Freiburg, Univ. of Freiburg, Univ. of Pennsylvania, Univ. of Freiburg.*

8:00 D5 **305.05** The role of glial calcium signaling in neurovascular coupling. K. BIESECKER*; A. I. SRIENC; A. AGARWAL; D. E. BERGLES; E. A. NEWMAN. *Univ. of Minnesota, Johns Hopkins Univ.*

9:00 D6 **305.06** Astrocyte-derived erythropoietin protects the oligodendrocyte precursor cell against hypoxic and reoxygenation injury. M. AOYAMA*; S. KATO; H. KAKITA; H. HIDA; K. SAWAMOTO; K. ASAI. *Nagoya City Univ., Nagoya City Univ., Nagoya City Univ.*

10:00 D7 **305.07** Role of astrocytic FABP7 in medial prefrontal cortex (mPFC) as a regulator of mouse emotional behavior. M. EBRAHIMI*; K. SHARIFI; Y. KAGAWA; A. ISLAM; Y. YASUMOTO; H. MIYAZAKI; S. KAWAMURA; Y. YAMAMOTO; T. SAWADA; T. YOSHIKAWA; Y. OWADA. *Yamaguchi Univ. Grad. Sch. of Med., RIKEN Brain Sci. Inst. (BSI).*

11:00 D8 **305.08** ● N-acetyl cysteine protects primary cortical astrocytes and neurons against proteotoxic stress. A. GLEIXNER*; J. POSIMO; R. K. LEAK. *Duquesne Univ.*

8:00 D9 **305.09** A TLR9 antagonist modulates spinal cord astroglial function and the effects of astrocytes on neurons, *in vitro.* C. ACIOGLU; L. NI; R. F. HEARY; S. ELKABES*. *New Jersey Med. School-Rutgers, Kilis 7 Aralik Univ.*

9:00 D10 **305.10** Functional ionotropic glutamate and GABA receptors in astrocytes of the ventrobasal thalamus. G. SEIFERT*; S. HÖFT; S. GRIEMSMANN; C. STEINHÄUSER. *Univ. Bonn.*

10:00 D11 **305.11** CDC42EP4-septin complex in parasynaptic domains of Bergmann glia facilitates cerebellar motor learning via GLAST-mediated glutamate clearance from the parallel fiber-Purkinje cell synapses. N. AGETA-ISHIHARA*; M. YAMAZAKI; K. KONNO; H. NAKAYAMA; M. ABE; T. MIYAKAWA; K. HASHIMOTO; M. WATANABE; K. SAKIMURA; M. KINOSHITA. *Nagoya Univ, Grad Sch. Sci., Brain Res. Inst, Niigata Univ., Hokkaido Univ, Grad Sch. Med., Grad Sch. Biomed. & Hlth. Sci, Hiroshima Univ., Cent Gene Anal of Behavior, NIPS, Div. Syst. Med. Sci, Fujita Hlth. Univ.*

11:00 D12 **305.12** Astrogliosis *in vitro* is modulated by the cardiac voltage-gated sodium channel Nav1.5 via Na+/Ca2+ exchange. L. W. PAPPALARDO*; O. A. SAMAD; J. A. BLACK; S. G. WAXMAN. *Yale University, Neurosci. and Regeneration Res.*

8:00 D13 **305.13** MKP-2 deletion results in reduced astrocyte proliferation and neurite growth but increased synaptic activity in mouse hippocampal primary cultures. N. ABDUL RAHMAN; R. PLEVIN; T. J. BUSHELL*. *Univ. of Strathclyde.*

9:00 D14 **305.14** Spinal PACAP-PAC1-receptor signaling pathway induces long-lasting mechanical allodynia through the activation of astrocytes in mice. M. YOUKAI; T. KURIHARA; T. ASADA; Y. KAMBE; K. INOUE; A. MIYATA*. *Kagoshima Univ. Grad Sch. Med. & Dent. Sci.*

10:00 D15 **305.15** Identification and characterization of novel subtypes of astrocytes. Z. CHEN*; R. G. SATTLER; M. GHOSH; M. B. ROBINSON; J. D. ROTHSTEIN. *Johns Hopkins Univ., Children's Hosp. of Philadelphia, Univ. of Pennsylvania.*

11:00 D16 **305.16** The role of glial lipid metabolism in synaptic plasticity. A. F. VAN DEIJK*; N. CAMARGO; T. HEISTEK; J. TIMMERMAN; H. D. MANSVELDER; J. F. H. M. BROUWERS; D. H. GUTMANN; L. M. BROERSEN; A. B. SMIT; M. H. G. VERHEIJEN. *Ctr. for Neurogenomics and Cognitive Res., Ctr. for Neurogenomics and Cognitive Res., Utrecht Univ., Washington Univ. Sch. of Med., Danone Res.*

8:00 D17 **305.17** Effect of selective astrocyte damage on axonal function in rat optic nerve. H. L. HAMA AMEEN*; A. YOUNG; R. FERN. *Univ. of Leicester, Univ. of Leicester, Univ. of.*

9:00 D18 **305.18** Implication of astrocytes in a mouse model of spontaneous oscillatory neuronal activity. A. ROCHER*; J. CHATTON. *UNIL.*

10:00 D19 **305.19** Morphological and transcriptomic analyses reveal differences between monolayer and tridimensional normal human astrocyte cultures. V. B. KNIGHT*; E. E. SERRANO. *New Mexico State Univ.*

11:00 D20 **305.20** Molecular characterization of astrocytes in unchallenged and injured hippocampus - A single-cell gene expression study. U. WILHELMSSON*; D. ANDERSSON; E. MÖLLERSTRÖM; Y. DE PABLO; T. PUSCHMANN; M. NILSSON; M. PEKNA; A. STÅHLBERG; M. PEKNY. *Inst. for Neurosci. and Physiology, Univ. of Gothenburg.*

8:00 D21 **305.21** Electrophysiological properties of freshly isolated mature hippocampal astrocytes. B. MA*; Y. DU; C. KIYOSHI; C. ALFORD; W. WANG; M. ZHOU. *The Ohio State Univ.*

9:00 D22 **305.22** Astroglial modulation of respiratory circuits in the pre-bötzinger complex. S. SHEIKHBAHAEI*; V. KASYMOV; J. ZWICKER; S. KASPAROV; N. MARINA-GONZALEZ; G. D. FUNK; J. C. SMITH; A. V. GOURINE. *Univ. Col. London, Natl. Inst. of Hlth. (NIH), Univ. of Alberta, Univ. of Bristol.*

10:00 D23 **305.23** Glial glutamate transporter 1 differentially modulates excitatory transmission onto orexin and melanin concentrating hormone neurons. C. L. BRIGGS*; K. SEMBA; M. HIRASAWA. *Dalhousie Univ., Mem. Univ.*

11:00 D24 **305.24** HtrA1, a BMP-responsive astrocyte subtype marker, regulates astrogliogenesis and the integrity of gliovascular extracellular matrix. C. PENG*; T. MCGUIRE; C. OKA; J. A. KESSLER. *Northwestern Univ., Nara Inst. of Sci. and Technol.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 D25 **305.25** Regulation of mitochondrial mobility in astrocyte processes. J. G. JACKSON*; J. C. O'DONNELL; H. TAKANO; D. A. COULTER; M. B. ROBINSON. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*

9:00 D26 **305.26** LRCC8A is an essential component of the swelling-activated excitatory amino acid release pathway in rat astrocytes. A. A. MONGIN*; M. C. HYZINSKI-GARCIA; A. RUDKOUSKAYA. *Albany Med. Col.*

10:00 D27 **305.27** ● ▲ Genetic loss-of-function in ampkα leads to altered behaviors in brain derived astrocytes. A. CARRERA*; *. WILLIAMS. *Trinity Univ.*

11:00 D28 **305.28** Astrocyte pathology in the prefrontal cortex impairs the cognitive function of rats. J. F. OLIVEIRA*; V. SARDINHA; A. LIMA; S. GOMES; J. CORREIA; F. MARQUES; J. CERQUEIRA; L. PINTO; N. SOUSA. *ICVS/3B's Associate Lab, Minho Univ.*

8:00 D29 **305.29** Astrocyte-induced cortical vasodilation is dependent on endothelial NMDA receptors. L. LU*; A. HOGAN-CANN; C. ANDERSON. *Univ. of Manitoba, Neurosci. Res. Program, Kleysen Inst. for Advanced Med.*

9:00 D30 **305.30** Stability and plasticity of the glial Nexus. R. F. STOUT*, JR; D. C. SPRAY. *Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

10:00 D31 **305.31** Effects of NO-donor stimulation of meninges and astrocytes on iron homeostasis in a cell culture model of migraine. A. L. ARAL*; A. KRONER-MILSCH; J. G. ZARRUK; H. BOLAY; S. DAVID. *Gazi Univ. Fac. of Med., Gazi Univ., The Res. Inst. of the McGill Univ. Hlth. Ctr.*

11:00 D32 **305.32** Astrocyte -targeted therapy by dietary phytochemicals and herbal extracts in oxidative-inflammatory and anti-oxidative pathways. D. AJIT*; A. SIMONYI; Z. CHEN; M. HANNINK; K. L. FRITSCHE; V. V. MOSSINE; W. R. FOLK; Z. GU; D. B. LUBAHN; G. Y. SUN. *Univ. Missouri, Columbia, Sch. of Medicine, Univ. of Missouri.*

POSTER

306. Oligodendrocytes: Cell Biology and Signaling II

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 D33 **306.01** Decreased oligodendrocyte precursor cell proliferation and reduced oligodendrogenesis in the zQ175 Huntington's disease mouse. A. J. LANGSETH*; M. L. PUCAK; S. M. KAVIANPOUR; D. E. BERGLES. *Johns Hopkins Sch. of Med.*

9:00 D34 **306.02** Altered connexin 32 protein expression in oligodendrocyte lineage cells in the thoracic spinal cord following distal sympathetic preganglionic axon transection. A. P. COULIBALY*; L. G. ISAACSON. *Miami Univ.*

10:00 D35 **306.03** Early phenotypic diversity of sister oligodendrocyte progenitor cells after mitosis and its modulation by aging and extrinsic factors. E. BODA*; S. DI MARIA; V. TAYLOR; P. ROSA; M. P. ABBRACCHIO; A. BUFFO. *Univ. of Turin, Univ. of Turin, Univ. of Basel, Natl. Res. Council (CNR), Univ. of Milan.*

11:00 D36 **306.04** Analysis of demyelination and remyelination after optic nerve injury. A. MIALOT*; F. BOATO; C. MOREAU-FAUVARQUE; A. CHÉDOTAL. *Inst. Vision - INSERM UMRS 968.*

8:00 D37 **306.05** Interleukin-4 suppresses interferon-γ mediated inhibition of oligodendrocyte progenitor cell differentiation through the STAT-1 signaling pathway. L. A. KIRBY*; D. TOSI; J. SCHOTT; A. GOCKE; E. BAXI; P. CALABRESI. *Johns Hopkins.*

9:00 D38 **306.06** *In vivo* imaging of monocarboxylate transporter 1 expression in health and disease. T. PHILIPS*; E. HUGHES; Y. LEE; B. MORRISON; R. SATTLER; D. BERGLES; J. ROTHSTEIN. *Johns Hopkins Univ., Johns Hopkins Univ.*

10:00 D39 **306.07** The flavan-3-ol epicatechin induces oligodendrogenesis in the adult mouse CNS. F. PIEROPAN*; A. D. RIVERA; K. AZIM; A. V. PATEL; R. GIBBS; P. COX; A. M. BUTT. *Univ. of Portsmouth, Brain Res. Institute, Univ. of Zürich/ETHZ, Switzerland.*

11:00 D40 **306.08** Detecting changes in water content of the intramyelinic compartment in the CNS. A. GOW*; K. J. MAHERAS; M. ARSHAD; D. Z. RADECKI; C. A. FLASK; J. STANLEY. *Wayne State Univ. Sch. Med., Wayne State Univ., Wayne State Univ., Wayne State Univ., Case Western Reserve, Wayne State Univ.*

8:00 D41 **306.09** ▲ Effects of conditional NMIIB knockout on myelin development in neonatal mice. J. NAM*; T. RUSIELEWICZ; C. MELENDEZ-VASQUEZ. *Hunter Col.*

9:00 D42 **306.10** Antiretroviral compounds differentially alter oligodendrocyte maturation. B. K. JENSEN*; H. MONNERIE; M. MANNELL; K. JORDAN-SCIUTTO; J. GRINSPAN. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*

10:00 D43 **306.11** ● Knockdown of MyosinID expression induced morphological change in oligodendrocytes. R. YAMAZAKI*; Y. YAMAGUCHI; T. ISHIBASHI; H. BABA. *Tokyo Univ. of Pharm. and Life Sci.*

11:00 D44 **306.12** The effect of creatine on progression and survival of oligodendrocyte lineage cells. K. A. CHAMBERLAIN*; S. E. NANESCU; J. K. HUANG. *Georgetown Univ., Georgetown Univ.*

8:00 D45 **306.13** Atrx is required for myelination in the mouse cns. M. EDWARDS; Y. JIANG; N. G. BERUBE*. *Univ. of Western Ontario, Children's Hlth. Res. Inst., Univ. Western Ontario.*

9:00 D46 **306.14** Quaking regulates sirtuin 2 expression during oligodendrocyte development and myelination. M. P. THANGARAJ; J. R. DOUCETTE; S. JI; A. J. NAZARALI*. *Univ. of Saskatchewan, Univ. of Saskatchewan, Univ. of Henan, Univ. of Saskatchewan.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

307. Alzheimer's disease: APP Abeta Tau Interactions I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 D47 **307.01** Deleterious effects of neuronal activation in the Tg2576 mouse model of Alzheimer's disease: A role of Arc in activity-dependent Aβ production and related synaptic impairment. S. MIDDEI*; A. PIGNATARO; C. GIORGI; C. MARCHETTI; G. MELI; M. AMMASSARI TEULE. *CNR Inst. for Neurosci., Inst. of Cell Biol. and Neurobiology, Natl. Res. Council, Santa Lucia Fndn., European Brain Res. Inst.*

9:00 D48 **307.02** Neuronal effects of BK channel opener applied to a mouse Alzheimer disease model. L. WANG*; R. YAMAMOTO; T. SUGAI; N. KATO. *China-Japan Friendship Hosp., Kanazawa Med. Univ.*

10:00 D49 **307.03** A novel small molecule BACE1 inhibitor with robust pharmacodynamic effects on CNS abeta levels in both rats and non-human primates. P. H. WEN*; J. ZHANG; L. ZHU; J. BRADLEY; K. CHEN; R. C. WAHL; D. HICKMAN; Y. CHENG; R. WHITE; R. T. FREMEAU JR; S. WOOD. *Amgen Inc, Amgen Inc, Amgen Inc, Amgen Inc.*

11:00 D50 **307.04** Voluntary exercise reduces Alzheimer's-like pathology after inflammation in mice. J. WHITE*; M. K. WEINTRAUB; A. L. MORIN; S. M. TURNER; S. L. HODGES; L. N. SADLER; G. W. BOEHM; M. J. CHUMLEY. *Dept. of Psychology, Texas Christian Universi, Texas Christian Univ., Texas Christian Univ.*

8:00 D51 **307.05** BDNF gene transfer improved the therapeutic potential of neural stem cell-based therapy in Alzheimer's disease mouse model. C. WU; I. WANG; P. SUNG; K. J. TSAI*. *Inst. of Basic Med. Science, Natl. Cheng Kung Univ., Natl. Cheng Kung University, Inst. of Clin. Med., Inst. of Life Science, Natl. Def. Med. Ctr., Inst. of Mol. Biology, Academia Sinica, Dept. of Neurology, Natl. Cheng Kung Univ. Hosp.*

9:00 D52 **307.06** MitoQ treatment of aged 3xTG-AD mice. M. YOUNG; J. L. FRANKLIN*. *Univ. Georgia.*

10:00 D53 **307.07** Impact of RTN3 deficiency on expression of BACE1 and amyloid deposition. M. SHAROAR*; Q. SHI; Y. GE; W. HE; X. RONG; X. HU; R. YAN. *Lerner Res. Institute, Cleveland Clin. Founda, Central South Univ.*

11:00 D54 **307.08** Effects of NVP-BEZ235, a phosphatidylinositol 3-kinase and mammalian target of rapamycin dual inhibitor, in amyloid-β induced pathological changes. P. BELLOZI*; J. G. DÓRIA; F. M. RIBEIRO; H. J. REIS; A. C. P. DE OLIVEIRA. *Federal Univ. of Minas Gerais, Federal Univ. of Minas Gerais.*

8:00 D55 **307.09** ● Novel M1 muscarinic potentiator improves rhesus cognition without the adverse events of donepezil and xanomeline. J. D. VARDIGAN*; C. E. CANNON; V. PURI; M. DANCHO; A. KOSER; M. WITTMANN; S. D. KUDUK; J. J. RENGER; J. USLANER. *Merck & Co., Inc.*

9:00 D56 **307.10** Imaging gangliosides using MALDI: A missing link between stroke and Alzheimer's disease? N. WEISHAUPT*; D. F. CECHETTO; V. HACHINSKI; S. WHITEHEAD. *Univ. of Western Ontario, London Hlth. Sci. Ctr.*

10:00 D57 **307.11** Treatments with both D3 and D3D3 decrease amyloid deposition and improve cognition in AD model mice. T. VAN GROEN*; I. KADISH; A. K. BROCK; D. JUERGENS; D. WILLBOLD. *Univ. Alabama-Birmingham, Univ. of Alabama at Birmingham, Forschungszenrum Juelich, Heinrich-Heine-University Duesseldorf.*

11:00 D58 **307.12** Histone de-acetylase 6 Inhibition in APP/PS1 mice shows a recovery in short-term fear-associated memory and axonal transport deficits. T. C. MAJID*; Z. CRISS II; D. GRIFFIN; R. PAUTLER. *Baylor Col. of Med., Baylor Col. of Med.*

8:00 D59 **307.13** Nootropic, neuroprotective and neurotrophic effects of Phloretin in Scopolamine induced amnesia in mice. P. J. GHUMATKAR*, JR; S. PATIL; S. SATHAYE. *Inst. of Chem. Technol.*

9:00 D60 **307.14** Fingolimod affects gene expression profile associated with LPS-induced memory impairment. S. NASOOHI*; R. OMIDBAKHSH; B. RAJABLI; B. KHALLAGHI; Z. MOHAMED; M. NAIDU; A. AHMADIANI; L. DARGAHI. *Dept. of Pharmacol. and Toxicology, Fac., Dept. of Pharmacology, Fac. of Medicine, Univ. of Malaya, Shahid Beheshti Univ. of Med. Science, Neurosci. Res. Ctr., Dept. of Anatomy, Fac. of Medicine, Univ. of Malaya, NeuroBiology Res. Center, Shahid Beheshti Univ. of Med. Sci.*

10:00 D61 **307.15** Zebrafish targeted mutagenesis to unveil normal physiological functions of, and interactions between, Prion Protein and Amyloid Precursor Protein: Relevance to Alzheimer's disease. P. L. A. LEIGHTON*; W. T. ALLISON. *Univ. of Alberta.*

11:00 D62 **307.16** The eIF2α phosphorylation-ATF4 signaling is activated in the brain of aged and Alzheimer's disease model mice. M. HAYAKAWA*; M. ITOH; K. OHTA; S. LI; M. UEDA; M. WANG; E. NISHIDA; M. KOBORI; T. INUZUKA; T. NAKAGAWA. *Gifu Univ. Grad. Sch. of Med., Natl. Agr. and Food Res. Organization, Gifu Univ. Grad Sch. Med.*

8:00 D63 **307.17** ● Effects of anatabine on Alzheimer's disease (AD) like pathology, neuroinflammation and behavior in a transgenic mouse model of AD. M. VERMA*. *Roskamp Inst.*

9:00 D64 **307.18** β-CTF induced early behavioral and electrophysiological alterations in transgenic TgCRND8 mouse model of Alzheimer's disease. V. HAMM*; J. BOTT; C. HERAUD; K. HERBEAUX; C. STRITTMATTER; J. CASSEL; C. MATHIS; R. GOUTAGNY. *CNRS UMR 7364, Univ. de Strasbourg.*

10:00 D65 **307.19** The effects of antioxidant catalase-SKL on behavioural and cellular pathology in a co-morbid rat model of stroke and Alzheimer's disease. J. L. AU*; H. J. NELL; P. A. WALTON; S. N. WHITEHEAD; D. F. CECHETTO. *Western Univ.*

11:00 D66 **307.20** Moderate treadmill exercise protects the dentate gyrus synaptic plasticity and related signaling cascade in a rat model of Alzheimer's disease. K. A. ALKADHI*; A. T. DAO. *Univ. Houston Col. Pharm.*

8:00 D67 **307.21** Differential impairment of sensorimotor signals in visual cortex of awake, behaving APPPS1 mice. S. LIEBSCHER*; G. B. KELLER; P. M. GOLTSTEIN; T. BONHOEFFER; M. HÜBENER. *MPI Neurobio., Friedrich Miescher Inst. for Biomed. Res.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 D68 **307.22** Overexpression of p25, truncated fragment of p35, Cdk5 activator causes AD like phenotypes in mice and are ameliorated by TFP5. V. SHUKLA*; S. K. MISHRA; P. REDDY; N. D. AMIN; B. BK; P. GRANT; L. TSAI; H. C. PANT. *NIH, NIDCR/NIH, NINDS/NIH, MIT.*

10:00 D69 **307.23** ● Abeta1-42 is positively correlated with CXCL-1 in cerebrospinal fluid of young to middle-aged beagle dogs. H. BORGHYS*; B. VAN BROECK; T. ERKENS; T. JACOBS; K. DE WAEPENAERT; D. DHUYVETTER. *Janssen Res. & Develop., Janssen Res. & Develop.*

11:00 D70 **307.24** Induced pluripotent stem cells-derived neural precursors improve behavior and pathology in a mouse model of Alzheimer's disease. E. A. ARMIJO*; G. EDWARDS III; F. MODA; A. FLORES; C. GONZALEZ; C. SOTO. *Univ. of Texas Hlth. Sci. Ctr., Univ. de los Andes, Facultad de Medicina, Fondazione IRCSS Inst. Neurologico Carlo Besta.*

8:00 D71 **307.25** Activity mediated by neurolipid (CB1 and LPA1) and neuropeptide (GAL1) receptors in a rat model with cholinergic basal forebrain lesion. A. LLORENTE; E. GONZALEZ DE SAN ROMAN*; M. MORENO; I. MANUEL; M. GIRALT; R. RODRÍGUEZ. *Univ. Basque Country.*

9:00 D72 **307.26** Network integrity analysis by *in vivo* calcium imaging on a mouse model of Alzheimer's disease. E. C. ROSALES JUBAL*; Z. BARGER; A. TOSE; F. SCHUCK; K. ENDRES; A. STROH. *Johannes Gutenberg Univ., Univ. of Washington, Johannes Gutenberg Univ.*

POSTER

308. Microglia and Inflammatory Mediators in Neurodegeneration

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 E1 **308.01** Changes on cognitive performance and glia activation pattern after sustained anti-Aβ immunotherapy. R. VON BERNHARDI*; N. SALGADO; A. GIACAMAN; G. RAMIREZ; J. GIMPEL; V. EUGENÍN-VON BERNHARDI; A. PEÑAILILLO; M. MUNDACA; J. PIZARRO; L. EUGENÍN-VON BERNHARDI. *Pontificia Univ. Catolica De Chile, Fac Med.*

9:00 E2 **308.02** Influence of IL-12/IL-23 signaling on Alzheimer's disease beta-amyloid pathology. J. OBST*; S. PROKOP; K. R. MILLER; J. VOM BERG; B. BECHER; F. L. HEPPNER. *Charité - Universitätsmedizin Berlin, Univ. of Zurich.*

10:00 E3 **308.03** Intravital characterization of microglia in Alzheimer's disease. N. H. DROST*; S. PROKOP; K. MILLER; J. L. RINNENTHAL; F. L. HEPPNER. *Charité Universitaetsmedizin Berlin.*

11:00 E4 **308.04** Role of amyloid precursor protein (APP) on microglia function. A. CARRANO; S. NIX; N. SAKAE; C. VERBEECK; P. DAS*. *Mayo Clin., Mayo Clin.*

8:00 E5 **308.05** Activation of Alzheimer's disease like cerebral innate immunity in transgenic flies. B. P. LEUNG*; J. L. SHAW; M. V. GUILLOT-SESTIER; K. T. CHANG; T. C. TOWN. *USC, USC.*

9:00 E6 **308.06** The brains of Down syndrome individuals show a distinct neuroinflammatory phenotype from those with sporadic Alzheimer's disease. D. M. WILCOCK*; A. HELMAN; J. HURBAN; T. L. SUDDUTH; F. A. SCHMITT; E. HEAD. *Univ. of Kentucky.*

10:00 E7 **308.07** Preceding role of satellite glia in nerve injury-induced microglia activation and pain hypersensitivity. K. NOH*; H. LIM; H. LEE; S. LEE. *Seoul Natl. Univ., Seoul Natl. Univ.*

11:00 E8 **308.08** Neuroinflammation alters AMPA-mediated intracellular calcium in striatopallidal spiny projection neurons. C. WINLAND*; S. VICINI; J. G. PARTRIDGE; K. MAGUIRE-ZEISS. *Georgetown Univ., Georgetown Univ.*

8:00 E9 **308.09** Aging-dependent changes in expression of Parkinson's disease-associated proteins in rat ventral midbrain. S. N. CASSELLA*; A. M. HEMMERLE; B. GARNER; A. ST. JOHN; V. GHISAYS; L. LARKE-VOLLMER; J. W. DICKERSON; S. M. FLEMING; J. P. HERMAN; K. B. SEROOGY. *Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Cincinnati, Vanderbilt Univ.*

9:00 E10 **308.10** Impact of indomethacin on neuroinflammation and hippocampal neurogenesis in aged mice. M. BÖHME*; M. GUENTHER; A. STAHR; M. LIEBMANN; N. JAENISCH; O. WITTE; C. FRAHM. *Jena Univ. Hosp., Heinrich-Heine-University, Univ. of Münster.*

10:00 E11 **308.11** A closed head injury in APP/PS1 knock-in mice enhances AD-like pathology, alters the glial response, and accelerates the onset of cognitive deficits. S. J. WEBSTER; A. D. BACHSTETTER*; L. VAN ELDIK. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky.*

11:00 E12 **308.12** A novel small molecule anti-cytokine therapeutic attenuates downstream cognitive behavioral deficits in a mouse model of TBI. A. D. BACHSTETTER; S. J. WEBSTER; D. M. WATTERSON; L. J. VAN ELDIK*. *Univ. of Kentucky, Northwestern Univ., Univ. of Kentucky.*

8:00 E13 **308.13** Neutrophil recruitment is mediated by soluble factors from microglia during Alzheimer's disease. H. CHO*; B. HAMZA; S. BAIK; I. MOOK-JUNG; D. IRIMIA. *Harvard Med. School/MGH, Seoul Natl. Univ.*

9:00 E14 **308.14** Impact of Immunoproteasomes in neurodegenerative diseases. L. WAGNER*; S. PROKOP; E. KRÜGER; P. M. KLOETZEL; F. L. HEPPNER. *Charité Universitätsmedizin Berlin, Charité Universitätsmedizin Berlin.*

10:00 E15 **308.15** Analysis of the Alzheimer's disease-associated TREM2 gene in human subjects and murine microglia. N. SAKAE; D. SEVLEVER; L. MA; C. MEDWAY; T. MIMS; G. BISCEGLIO; S. ABDUL-HAY; S. G. YOUNKIN*. *Mayo Clin. Jacksonville, Mayo Clin. Jacksonville.*

11:00 F1 **308.16** Tetracycline-controllable AAV2/1-mediated hippocampal gene delivery of CD200 enhances neural differentiation and amyloid clearance in Alzheimer's disease mouse model. M. M. VARNUM*; T. KIYOTA; K. INGRAHAM; S. IKEZU; T. IKEZU. *Boston Univ., Univ. of Nebraska Med. Ctr., Boston Univ.*

8:00 F2 **308.17** Coordinated gene expression of neuroinflammatory and cell signaling markers in human brain development and aging. C. PRIMIANI*; S. RAPOPORT*; V. RYAN; M. CAM; J. RAO; H. MODI; K. AHN. *NIH, NIH, NIH, NIH.*

9:00 F3 **308.18** The role for human caspase-4 in Nlrp3 inflammasome activation, systemic inflammation and Alzheimer's disease. Y. KAJIWARA*; A. MCKENZIE; M. GAMA SOSA; G. ELDER; D. L. DICKSTEIN; J. SCHMEIDLER; B. ZHANG; O. BOZDAGI-GUNAL; J. BUXBAUM. *Ichan Sch. of Med. At Mount Sinai, Ichan Sch. of Med. At Mount Sinai, James J. Peters Dept. of Veterans Affairs Med. Ctr., James J. Peters Dept. of Veterans Affairs Med. Ctr., Ichan Sch. of Med. At Mount Sinai.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 F4 **308.19** ▲ Transcriptomic and immunohistochemistry studies suggest primed microglia in naïve middle aged Lumbar spinal cord. W. GALBAVY; M. REBECCHI*. *Stony Brook Univ., Stony Brook Univ.*

11:00 F5 **308.20** Quetiapine attenuates glial activation and proinflammatory cytokines in APP/PS1 transgenic mice. S. ZHU*; R. SHI; J. WANG; V. LI; R. ZHANG; A. TEMPIER; J. KONG; J. WANG; X. LI. *Univ. of Manitoba, Univ. of Alberta, Univ. of British Columbia, The Fourth Military Med. Univ., Univ. of Manitoba.*

8:00 F6 **308.21** Monoacylglycerol lipase inhibitor JZL184 reduces neuroinflammatory response in APdE9 mice and in adult mouse glial cells. R. PIHLAJA*; J. VASARA; J. TAKKINEN; O. ESKOLA; F. R. LOPEZ-PICON; M. HAAPARANTA-SOLIN; J. O. RINNE. *Univ. of Turku, Univ. of Turku, Univ. of Turku and Turku Univ. Hosp.*

9:00 F7 **308.22** The hypoxic induction of endogenous erythropoietin (EPO) from astrocyte was suppressed by inflammatory cytokine tumor necrosis factor (TNF). T. TAMURA*; Y. NAGAYA; M. AOYAMA; H. KAKITA; S. KATO; H. HIDA; K. ASAI. *Nagoya City Univ., Nagoya City Univ.*

10:00 F8 **308.23** The role of interleukin-1 in protein degradation dysfunction in Alzheimer's. P. A. PARCON; O. ABOUD; L. LIU; J. BIEDERMANN; W. ZAWADA; R. E. MRAK; S. T. GRIFFIN*. *Univ. Ark Med. Sci., Univ. of Toledo, Central Ark Veterans Healthcare System.*

11:00 F9 **308.24** The role of TREM2 in traumatic brain injury-induced neuroinflammation and neurodegeneration. M. SABER*; O. N. KOKIKO-COCHRAN; R. TEKNIPP; C. MILLER; B. T. LAMB. *Cleveland Clin.*

8:00 F10 **308.25** Induction of mitochondrial ferritin by proinflammatory cytokines is mediated via NF-kappaB signaling pathway and involves in neuroprotection in Alzheimer's disease. H. YANG*; H. GUAN; M. YANG; Z. LIU; S. ZHAO; S. TAKEUCHI; D. YANAGISAWA; S. R. VINCENT; I. TOOYAMA. *Shiga Univ. of Med. Sci., Harbin Med. Univ., The Univ. of British Columbia.*

9:00 F11 **308.26** Expression of gelatinases in glial cells of the brain aversive system in rats submitted to intraarticular persistent inflammation. G. C. DO NASCIMENTO*; A. C. DESIDERÁ; R. F. GERLACH; G. A. LUCAS; C. R. A. LEITE-PANISSI. *Fac. of Philosophy, Sci. and Literature of, Dept. Morphology, Physiol. and Basic Pathology, Ribeirão Preto Dent. School, Univ. of São Paulo, 3Dept. Physiology, Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.*

10:00 F12 **308.27** Evaluating the association between INPP5D mRNA isoforms and polymorphisms associated with Alzheimer's disease. I. PARIKH*; J. F. SIMPSON; P. T. NELSON; S. ESTUS. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky.*

11:00 G1 **308.28** Experimental epilepsy and elevated glutamate triggers microglial process extension through neuronal nmdars and microglial p2y12rs. U. EYO; J. PENG; P. SWIATKOWSKI; A. MUKHERJEE; L. WU*. *Rutgers Univ.*

8:00 G2 **308.29** LPS-activated aryl hydrocarbon receptor differentially regulates proinflammatory gene expression and immune responses in astroglia versus microglia. Y. GAN; C. LIN; P. HSU; S. WU; Y. HUANG; Y. LEE*. *Natl. Yang-Ming Univ., Kang-Ning Junior Col. of Med. Care and Mgmt., Natl. Yang-Ming Univ., Natl. Yang-Ming Univ., Natl. Yang-Ming Univ.*

9:00 G3 **308.30** IFN-γ promotes tau hyperphosphorylation without affecting mature tangles. C. CEBALLOS-DIAZ; A. LI; N. DINUNNO; Y. LEVITES; P. E. CRUZ; B. GIASSON; T. E. GOLDE; P. CHAKRABARTY*. *Univ. of Florida.*

10:00 G4 **308.31** The Studies of binding properties of TREM2 wild type and the high risk variant R47H. H. H. DOU*; S. C. MCCARTHY; J. DANAO; D. LESTER-ZEINER; E. ETTEHADIEH; R. KEGEL; A. LIM; S. WANG; H. CHEN. *Amgen, Amgen, Amgen.*

11:00 G5 **308.32** Altered microglial response to endotoxin in a mouse model of Alzheimer's disease. J. YANG*; J. KOU; M. GO; K. FUKUCHI. *Univ. of Illinois Col. of Med. At Peoria.*

8:00 G6 **308.33** ● Studies on lipid mediators and receptors of resolution in Alzheimer's disease. M. SCHULTZBERG*; A. GRANHOLM; M. ZHU; X. WANG; J. PALMBLAD; M. ERIKSDOTTER; C. N. SERHAN. *Karolinska Institutet, Med. Univ. of South Carolina, Harvard Inst. of Medicine, Brigham and Women's Hosp. and Harvard Med. Sch.*

POSTER

309. Parkinson's disease: Human Studies

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 G7 **309.01** The contribution of the insula in Parkinson's disease: A quantitative meta-analysis study. M. CRIAUD*; L. CHRISTOPHER; P. BOULINGUEZ; B. BALLANGER; A. E. LANG; S. CHO; A. P. STRAFELLA. *Res. Imaging Centre,CAMH,University of Toronto, Div. of Brain, Imaging and Behaviour – Systems Neuroscience, Toronto Western Res. Institute, UHN, Univ. of Toronto, Univ. Lyon 1, CNRS, UMR5229, Ctr. de Neurosci. Cognitive, Univ. de Lyon, F-69622, Morton and Gloria Shulman Movement Disorder Unit & E.J. Safra Parkinson Dis. Program, Toronto Western Hospital, UHN, Univ. of Toronto.*

9:00 G8 **309.02** Disruption of resting state functional connectivity with Parkinson disease progression. M. C. CAMPBELL*; J. M. KOLLER; A. Z. SNYDER; J. S. PERLMUTTER. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

10:00 G9 **309.03** Corticostriatal connectivity changes in de novo Parkinson's disease. P. MANZA*; A. HUANG; S. ZHANG; C. R. LI; H. LEUNG. *Stony Brook Univ., Yale Univ.*

11:00 G10 **309.04** Resting-state functional network reorganization in Parkinson's disease. P. M. LAURO; S. TINAZ*; P. MALONE; C. I. LUNGU; M. HALLETT; S. G. HOROVITZ. *NIH/NINDS, NIH/NINDS.*

8:00 G11 **309.05** Decreased salience network functional connectivity in Parkinson's disease. C. LEDBETTER*; H. M. NGUYEN; R. ZWEIG; O. T. CARMICHAEL; K. A. SIGVARDT; E. DISBROW. *LSU Hlth. Sci. Ctr. - Shreveport, Univ. of California, Davis, VANCHCS.*

9:00 G12 **309.06** Tractography and functional connectivity of deep brain stimulation (DBS) contacts and clinical outcome in movement disorders. K. VYAS; E. SANCHEZ; M. N. HOSSEINZADEH-ZARIBAF; L. M. ALBA-FERRARA; D. SMITH; F. VALE; T. MALAPIRA; T. ZESIEWICZ; G. A. DE ERAUSQUIN*. *Morsai Col. of Medicine, Univ. of South Florida, Morsani Col. of Mediine, Univ. of South Florida, Morsani Col. of Medicine, Univ. of South Florida, Morsani Col. of Medicine, Univ. of South Florida, Fundacion de Lucha contra los Trastornos Neurologicos y Psiquiatricos en Minorias, Univ. of South Florida, Univ. of South Florida, Univ. of South Florida.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 H1 **309.07** Cortical connectivity is altered but muscular connectivity is preserved in Parkinson's disease at various cycling exercise intensities. M. A. SACHELI*; D. K. MURRAY; M. C. HÖNIG; X. CHEN; J. WANG; A. J. STOESSL; M. J. MCKEOWN; S. APPEL-CRESSWELL. *Pacific Parkinson's Res. Ctr., Univ. of Maastricht, Univ. of British Columbia.*

11:00 H2 **309.08** The relationship between hand-eye coordination and micrographia in people with Parkinson's disease. C. FISCHER*; L. COOKE; S. HYATT; J. YOUNG; E. RABIN. *NYIT Col. of Osteo. Med.*

8:00 H3 **309.09** Time on timing: distortions in time perception relates promote impulsive decisions in patients with Parkinson's disease. J. ZHANG*; C. OTERO; N. WOLPE; J. B. ROWE. *Cognition and Brain Sci. Unit, Med. Reserch, Univ. of Cambridge, Med. Res. Council, Behavioural and Clin. Neurosci. Inst.*

9:00 H4 **309.10** Multi-digit coordination deficits and bradykinesia in Parkinson's disease. H. JO*; J. PARK; M. M. LEWIS; X. HUANG; M. M. LATASH. *Pennsylvania State Univ., Montana State Univ., Pennsylvania State Univ. - Milton S. Hershey Med. Ctr.*

10:00 H5 **309.11** ● Increased extracellular free water in the substantia nigra of Parkinson's disease. E. OFORI*; O. PASTERNAK; P. J. PLANETTA; R. G. BURCIU; A. SNYDER; M. FEBO; T. E. GOLDE; M. S. OKUN; D. E. VAILLANCOURT. *Univ. of Florida, , Brigham and Women's Hospital, Harvard Med. Sch., Univ. of Florida, Univ. of Florida, Univ. of Florida, Univ. of Florida.*

11:00 H6 **309.12** Blood biomarkers for Parkinson's disease: Peptoids and proteins. U. YAZDANI*; S. SINGH; Y. DENG; S. ZAMAN; R. B. DEWEY; D. C. GERMAN. *Univ. TX-Southwestern Med. Ctr., Univ. TX- Southwestern Med. Ctr., Univ. TX- Southwestern Med. Ctr.*

8:00 H7 **309.13** The influence of bias on perceptual decision-making in Parkinson's disease. A. PERUGINI*; S. OVAYSIKIA; M. BASSO. *UCLA.*

9:00 H8 **309.14** ● Dynamic cycling improves motor symptoms in Parkinson's disease. A. L. RIDGEL*; R. S. PHILLIPS; K. A. WILSON; B. L. WALTER; F. M. DISCENZO; K. A. LOPARO. *Kent State Univ., Univ. Hosp., Rockwell Automation, Case Western Reserve Univ.*

10:00 H9 **309.15** DJ-1 as a biomarker for Parkinson's disease in urine endosome. D. HO*; S. YI; H. SEO; I. SON; W. SEOL. *Col. of Medicine, Wonkwang Univ., Sanbon Med. Center, Col. of Medicine, Wonkwang Univ., Hanyang Univ.*

11:00 H10 **309.16** ● Detection and diagnosis of early-stage Parkinson's disease using autoantibodies as biomarkers. C. DEMARSHALL*; M. HAN; E. NAGELE; N. ACHARYA; A. SARKAR; R. NAGELE. *Rowan Univ., New Jersey Inst. for Successful Aging, Durin Technologies, Inc.*

8:00 H11 **309.17** Decreased mobility and executive dysfunction in Parkinson's disease. H. M. NGUYEN*; C. I. HIGGINSON; R. ZWEIG; K. A. SIGVARDT; E. A. DISBROW. *LSU Hlth. Shreveport, Loyola Univ. Maryland, Univ. of California, Davis, VANCHCS.*

9:00 H12 **309.18** Global alpha slowing in individuals with Parkinson's disease and dance-induced increases in frontal alpha synchronization. G. R. LEVKOV*; P. M. DI NOTO; R. MONTEFUSCO-SIEGMUND; R. J. BAR; J. F. X. DESOUZA. *York Univ., York Univ., York Univ., York Univ., Canada's Natl. Ballet Sch., Canadian Action and Perception Network (CAPnet).*

10:00 I1 **309.19** Repetitive finger movement, Purdue pegboard and buttoning in persons with Parkinson's disease. E. L. STEGEMOLLER*; J. C. UZOCHUKWU. *Iowa State Univ.*

11:00 I2 **309.20** Effect of high frequency rtms on freezing of gait in patients with parkinsonism. W. CHANG*; M. KIM; J. CHO; J. YOUN; Y. KIM; S. KIM; Y. KIM. *Samsung Med. Ctr., Ctr. for Prevention and Rehabilitation, Heart Vascular and Stroke Inst., Samsung Med. Center, Sungkyunkwan Univ. Sch. of Med., Samsung Med. Center, Sungkyunkwan Univ. Sch. of Med.*

8:00 I3 **309.21** Changes in beta modulation during prolonged motor practice are reduced in Parkinson's disease. C. MOISELLO*; D. BLANCO; C. FONTANESI; S. P. KELLY; A. DI ROCCO; M. GHILARDI. *CCNY, CCNY, NYU Sch. of Med.*

9:00 I4 **309.22** TMS enhances retention of a motor skill in Parkinson's disease. C. FONTANESI*; C. MOISELLO; D. BLANCO; A. QUARTARONE; A. DI ROCCO; M. GHILARDI. *City Col. of New York, Univ. of Messina, NYU Sch. of Med.*

10:00 I5 **309.23** Improved olfactory function following high-rate cycling in individuals with Parkinson's disease. J. L. ALBERTS*; A. L. PENKO; A. B. ROSENFELDT. *Cleveland Clin., Cleveland Clin.*

11:00 I6 **309.24** Delay differential analysis of EEG during reaching to grasp virtual objects. M. E. HERNANDEZ*; J. WEYHENMEYER; C. LAINSCSEK; T. J. SEJNOWSKI; H. POIZNER. *UCSD, The Salk Inst. for Biol. Studies.*

8:00 I7 **309.25** Differences between two prism adaptation tasks in people with Parkinson disease with and without freezing of gait. S. T. NEMANICH*; G. M. EARHART. *Washington Univ. In St. Louis.*

9:00 I8 **309.26** Automatic and controlled semantic priming in Parkinson's disease. M. A. GÓMEZ LÓPEZ*; U. RODRÍGUEZ-ORTIZ; J. F. SILVA-PEREYRA. *Natl. Autonomous Univ. of Mexico, Natl. Inst. of Neurol. an Neurosurg., Natl. Autonomous Univ. of Mexico.*

10:00 I9 **309.27** Serotonin impairment in CSF of PD patients,without an apparent clinical counterpart. A. STEFANI*; V. D'ANGELO; M. PIERANTOZZI. *Univ. Tor Vergata, IRCCS Fondazione S.Lucia.*

11:00 I10 **309.28** Generation of dopaminergic neurons from iPS cells derived from patients having Parkinson´s disease with mutations in the glucocerebrosidase (GBA1) gene. E. RODRÍGUEZ-TRAVER; E. DÏAZ-GUERRA; A. SÁNCHEZ-CRUZ; F. ARENAS; P. GARCÍA-SANZ; J. PIGNATELLI; J. KULISEVSKY; R. MORATALLA; C. VICARIO-ABEJON*. *Cajal Institute, CSIC, Hosp. de la Santa Creu i Sant Pau.*

8:00 I11 **309.29** Conserved dopamine neurotrophic factor (CDNF) in Parkinson's disease: Clinical investigations. K. TERPSTRA*; A. SIDDIQI; L. MOLINARO; S. JIANG; M. RATHBONE; R. MISHRA. *McMaster Univ., McMaster Univ., McMaster Univ., McMaster Univ.*

9:00 I12 **309.30** Evidence for increased persistent inward currents in Parkinson's disease. A. M. KUNCEL*; J. A. WILSON; C. J. HECKMAN; D. M. CORCOS; J. P. A. DEWALD. *Northwestern Univ., Northwestern Univ., Northwestern Univ., Northwestern Univ., Northwestern Univ.*

Mon. AM

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

310. Animal Studies on the Aging Brain

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 J1 **310.01** Age-related alterations of oligodendroglia in white matter of the non-human primate. N. HEYWORTH*; A. CARMICHAEL; D. ROSENE. *Boston Univ. Sch. of Med.*

9:00 J2 **310.02** Investigation of the aging mouse brain with serial optical coherence tomography. F. LESAGE*; A. CASTONGUAY; M. MOEINI; M. S. TABATABAEI; P. AVTI; P. POULIOT. *Ecole Polytechnique Montreal, Ecole Polytechnique Montreal, Montreal Heart Inst.*

10:00 J3 **310.03** Aged rats with intact memory show coordinated expression of inhibitory and neuroprotective genes with behavioral task performance. R. P. HABERMAN*; M. KOH; R. A. STURNER; M. GALLAGHER. *Johns Hopkins Univ.*

11:00 J4 **310.04** Age-dependent alterations in axon-myelin interactions, mitochondrial dynamics and Ca^{2+} homeostasis underlie the increased vulnerability of aging axons to ischemia. S. BALTAN*; K. STAHON; C. BASTIAN; G. KIDD; S. BRUNET. *Cleveland Clin.*

8:00 J5 **310.05** Visceral fat contributes ischemic injury in aged mice. E. PARK*; J. A. SHIN; S. I. JEONG. *Med. Sch. of Ewha Womans Univ.*

9:00 J6 **310.06** Altered motor axon voltage-gated Na+ channel function during aging in mice. M. MOLDOVAN*; M. R. ROSBERG; S. ALVAREZ; D. KLEIN; R. MARTINI; C. KRARUP. *Univ. of Copenhagen, Rigshospitalet, Univ. of Würzburg.*

10:00 J7 **310.07** Calorie restriction reverses age-dependent gene expression and induces neuroprotective transcriptional signatures in the hippocampal CA1 region. M. J. SCHAFER*; I. DOLGALEV; A. HEGUY; S. D. GINSBERG. *Nathan Kline Inst., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr.*

11:00 J8 **310.08** CREB mRNA and protein levels in hippocampal sub-regions are altered with age. X. YU*; D. M. CURLIK, II; M. M. OH; J. C. P. YIN; J. F. DISTERHOFT. *Northwestern Univ., Univ. of Wisconsin - Madison.*

8:00 J9 **310.09** Acute psychosocial stress response in mid-aged male f344 rats. K. STAGGS; H. M. BUECHEL; J. POPOVIC; E. M. BLALOCK*. *Univ. of Kentucky Col. of Med., Univ. Kentucky Coll Med.*

9:00 J10 **310.10** Cell-type specific overexpression of HDAC2 in hippocampus modulates inflammation in aged rata. J. C. GANT*; K. CHEN; E. M. BLALOCK; I. KADISH; N. PORTER; P. W. LANDFIELD. *Univ. of Kentucky, Univ. of Kentucky Col. of Med., Univ. of Alabama, Birmingham, Univ. of Kentucky Col. of Med.*

10:00 J11 **310.11** Differential expression of two novel repeat-rich intergenic long noncoding RNAs (lincRNAs) during aging of the rat brain. S. KOUR*; P. C. RATH. *Jawaharlal Nehru Univ., Jawaharlal Nehru Univ.*

11:00 J12 **310.12** Brain shrinkage and reduced nerve conduction velocity in a progeroid-like macaque monkey. T. OISHI*; H. IMAI; Y. GO; H. HIRAI; M. TAKADA. *Systems Neurosci. Section, Primate Res. Inst., Primate Res. Inst, Kyoto Univ., Ctr. Novel Sci. Initiatives, Natl. Inst. Natural Sci., Natl. Inst. Physiol. Sci.*

8:00 K1 **310.13** *In vivo* imaging by two-photon microscopy of brain dendritic cells in normal aging. M. BENTIVOGLIO*; C. LAPERCHIA; M. BUFFELLI; G. GRASSI-ZUCCONI. *Univ. Verona.*

9:00 K2 **310.14** ● Treatment of aging rats with NT-020 increases nuclear expression of Nrf2 and WNT/β-catenin. J. LEE*; A. FLOWERS; B. GRIMMING; C. D. SANBERG; C. HUDSON; P. C. BICKFORD. *Univ. of South Florida, Natura Therapeutics, Inc., James A Haley Veterans Hosp.*

10:00 K3 **310.15** Caloric restriction prevents age-related increases in 5-hydroxymethylcytosine levels in mouse cerebellar Purkinje cells. R. LARDENOIJE*; D. L. A. VAN DEN HOVE; G. KENIS; H. W. M. STEINBUSCH; B. P. F. RUTTEN. *Maastricht Univ., Univ. of Wuerzburg.*

11:00 K4 **310.16** ▲ Anxious behaviors in normally aging monkeys and in a nonhuman primate model of Parkinson's disease. C. ADAM*; A. M. DETTMER; T. LIU; A. NGO; A. DOYLE; D. PYRDEK; N. ROCKCASTLE; Z. ZHANG; J. L. CAMERON. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Kentucky.*

8:00 K5 **310.17** Age dependent brain iron concentration in healthy adults. N. PERSSON*; S. KISHORE; Q. ZHANG; T. LIU; J. SHEN; R. BAO; M. NI; T. LIU; J. WU; Y. WANG. *Dept. of Psychology, Stockholm Univ., Stockholm Univ., Weill Cornell Med. Col., The 1st Hosp. of Dalian Med. Univ., Cornell Univ., Cornell Univ.*

9:00 K6 **310.18** Effects of aging and exercise on cerebrovascular density of mice. S. BEH*; Y. WANG; Y. KUO. *The Inst. of Basic Med. Sci., The Dept. of Cell Biol. and Anat.*

10:00 K7 **310.19** Forced exercise increases nigral glial cell line-derived neurotrophic factor family receptor alpha 1 (GFR-α1) expression and nigral dopamine in aged rats. J. C. ARNOLD*; M. F. SALVATORE. *Louisiana State Univ. Hlth. Sci. Ctr.*

11:00 K8 **310.20** ▲ Age-dependent changes in somatostatin-positive neurons in different brain regions of Callithrix jacchus and Tupaia Belangeri. D. CUERVO*; J. ACOSTA-GARCÍA; C. PEREZ-CRUZ; S. DÍAZ-CINTRA; J. MORIN; A. AGUILAR-VÁZQUEZ; E. FUCHS. *CINVESTAV, UNAM, German Primate Ctr.*

8:00 K9 **310.21** Immunoblotting reveals an aging-related decrease in the Kir6.2 subunit of KATP channels in the murine hippocampus. C. M. GRIFFITH*; A. A. SHARP; P. R. PATRYLO. *Southern Illinois Univ. Sch. of Med., Southern Illinois Univ., Southern Illinois Univ. Sch. of Med.*

9:00 L1 **310.22** Common molecular pathways may be shared between depressive disorders and age-related cognitive impairments. I. MICHAELEVSKI*; M. GROSS; A. SHEININ; E. NESHER; N. BOROVOK; A. PINHASOV. *Tel Aviv Univ., Ariel Univ.*

10:00 L2 **310.23** Evidence for the EORS theory of aging - 5 year update on epigenetics and mitochondrial redox. G. J. BREWER*. *UC Irvine.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 L3 **310.24** Age-dependent effects of RCAN1 overexpression on memory and synaptic plasticity. H. WONG*; J. LEVENGA; B. ROTHERMEL; E. KLANN; C. A. HOEFFER. *New York Univ., Univ. of Colorado, UT Southwestern Med. Ctr.*

8:00 L4 **310.25** F3/contactin overexpression rescues synaptic plasticity and memory in aged mice. D. PUZZO*; A. BIZZOCA; C. A. GUIDA; W. GULISANO; G. FRASCA; M. BELLOMO; G. GENNARINI; A. PALMERI. *Univ. of Catania, Univ. of Bari, Univ. "Kore".*

9:00 L5 **310.26** The molecular mechanisms of age-related macular degeneration. N. GOLESTANEH*; M. KOKKINAKI; M. ABU-ASAB. *Georgetown Univ. Med. Ctr., NIH/NEI.*

10:00 L6 **310.27** Protein homeostasis dysregulation is associated with aberrant morphology and reduced function of aging mechanosensory neurons. E. VAYNDORF*; C. SCERBAK; S. HUNTER; M. TOTH; J. PARKER; C. NERI; M. DRISCOLL; B. TAYLOR. *Univ. of Alaska Fairbanks, Rutgers, SUNJ, Univ. of Montreal, INSERM.*

11:00 L7 **310.28** Investigation of age-related vulnerability of the nigrostriatal pathway to escalating dose methamphetamine administration. V. R. BATRA*; J. WILDEN; M. SALVATORE. *LSU Hlth. Sci. Ctr., LSU Hlth. Sci. Ctr., LSU Hlth. Sci. Ctr.*

8:00 L8 **310.29** Mitochondrial dysfunction and dynamics in mouse frontal cortex and hippocampus during aging. K. J. THOMSEN*; N. SHERAZI; T. YOKOTA; M. HASAN; C. REGNELL; N. FAKOURI; C. DESLER; L. JUEL RASMUSSEN; F. DELA; L. BERGERSEN; M. LAURITZEN. *Univ. of Copenhagen, Univ. of Copenhagen, Grad. Sch. of Medicine, Hakkaido Univ., Univ. of Copenhagen, Univ. of Oslo, Univ. of Copenhagen.*

9:00 L9 **310.30** Transcriptional profiling of neuronal subtypes to reveal specialized age-dependent behavioral functions. V. LAKHINA*; R. KALETSKY; A. WILLIAMS; C. T. MURPHY. *Princeton Univ., Princeton Univ.*

POSTER

311. Animal Models of Epilepsy I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 L10 **311.01** ▲ A neurovascular decoupling during ictal activity in rats with focal epilepsy. R. TORRES*; Y. SONG; J. RIERA DIAZ; W. LIN. *Florida Intl. Univ.*

9:00 L11 **311.02** Chronological changes in brain hemodynamics in chronic epileptic mouse model. H. LIM*; A. JO; J. SIM; Y. LEE; G. KWON; Y. HONG; M. SUH. *IBS, Biol. Sci.*

10:00 L12 **311.03** ● Genetic background of mice strongly influences treatment resistance in the 6 Hz seizure model. K. LECLERCQ; C. C. ROSPO; E. JIGOREL; M. DE RYCK*; R. KAMINSKI. *UCB Pharma SA.*

11:00 M1 **311.04** Effect of maternal immune activation on epileptogenesis in mice. D. SHIN; J. WASHINGTON, III; U. DEVARAJ; A. AHMADI; R. SANKAR; A. M. MAZARATI*. *D Geffen Sch. of Med. at UCLA, D Geffen Sch. of Med. at UCLA, D. Geffen Sch. Med. at UCLA.*

8:00 M2 **311.05** ▲ TLR-4 mutation is associated with enhanced seizure susceptibility in C57BL mouse model. R. HAMILTON*; A. TOIA; R. L. RAMOS; L. A. GABEL. *Lafayette Col., NY Inst. of Technol. Col. of Osteo. Med., Lafayette Col.*

9:00 M3 **311.06** Deficient dendritic pruning in Nav1.1-haploinsufficient mice during hippocampal development. M. LEE*; M. TSAI; H. FAN; J. YOU; C. CHEN; I. YU; Y. CHEN; F. CHANG; C. YEH; C. PENG; L. LEE; S. LIN. *Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ. Hosp.*

10:00 M4 **311.07** The effects of superimposing seizure induction on ns-pten haploinsufficient and wild type mice. G. SMITH*; J. WHITE; J. NICOLETTI; A. PANDIAN; J. LUGO. *Bayor Univ., Baylor Univ.*

11:00 M5 **311.08** Pattern recognition quantification of spike-and-wave discharge in normal and brain injured Sprague-Dawley rats. K. M. RODGERS*; F. E. DUDEK; D. S. BARTH. *Univ. Colorado, Univ. of Utah Sch. of Med.*

8:00 M6 **311.09** An EEG methodology to localize the irritative cortices in a preclinical model of focal epilepsy. J. BAE*; Y. SONG; A. DESHMUKH; J. J. RIERA. *Florida Intl. Univ.*

9:00 M7 **311.10** Metallothionein expression in the hippocampus of rats treated with kainic acid and pentylenetetrazol. D. JUÁREZ-REBOLLAR; J. MANJARREZ; C. NAVA-RUIZ; V. ZAGA-CLAVELLINA; P. FLORES-ESPINOSA; Y. HERAS-ROMERO; A. DIAZ-RUIZ; M. MENDEZ-ARMENTA*. *Natl. Inst. Neurol Neurosurg., Natl. Inst. Neurol Neurosurg., Natl. Inst. of Perinathology, Natl. Inst. Neurol Neurosurg., Natl. Inst. Neurol Neurosurg.*

10:00 M8 **311.11** Glutamatergic neuron-targeted loss of Lgi1-epilepsy gene results in seizures. M. BOILLOT*; C. HUNEAU; E. MARSAN; K. LEHONGRE; V. NAVARRO; S. ISHIDA; B. DUFRESNOIS; E. OZKAYNAK; J. GUARRIGUE; R. MILES; B. MARTIN; E. LEGUERN; M. ANDERSON; S. BAULAC. *Brain and Spinal Cord Inst., Sorbonne Universités, UPMC Univ. Paris 06, UMR S 1127, ICM, INSERM, U 1127, CNRS, UMR 7225, Univ. de Rennes 1, LTSI, INSERM, U 1099, Epilepsy unit, AP-HP Groupe hospitalier Pitié-Salpêtrière, Beth Israel Deaconess Med. Ctr. and Harvard Med. Sch., Dept. de Génétique et de Cytogénétique, AP-HP Groupe hospitalier Pitié-Salpêtrière.*

11:00 M9 **311.12** Morphological analysis of high variable lesion patterning in a model of dysplastic lesion induced by cortical cryogenic insult in neonatal rats. A. FERNANDES*; A. L. F. DONATTI; N. GARCIA-CAIRASCO. *Univ. of São Paulo, Univ. of São Paulo.*

8:00 M10 **311.13** Activation and deactivation in blood-oxygen-level dependent signals on a preclinical model of focal epilepsy. Y. SONG*; B. SANGANAHALLI; F. HYDER; W. LIN; J. J. RIERA. *Florida Intl. Univ., Yale Univ.*

9:00 M11 **311.14** Limbic kindling impairs retrieval of fear memories and accelerates adult hippocampal neurogenesis in rats. J. J. BOTTERILL*; K. J. BRYMER; L. E. KALYNCHUK. *Univ. of Saskatchewan, Univ. of Saskatchewan.*

10:00 M12 **311.15** Low ascorbate increases seizure susceptibility and severity. J. A. KENNARD*; F. E. HARRISON. *Vanderbilt Univ. Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 N1 **311.16** Behavioral tests as potential biomarkers for the development of post-status epilepticus temporal lobe epilepsy. L. D. ORMISTON; R. T. JONES; I. MODY*. *David Geffen Sch. of Medicine, Univ. of California at Los Angeles, UCLA Sch. Med.*

8:00 N2 **311.17** Characterization of the cortical initiation site in mouse models of absence epilepsy. N. CARÇAK; M. LORINCZ; C. MCCAFFERTY; M. VENZI; F. ONAT; V. CRUNELLI; F. DAVID*. *Cardiff Univ., Istanbul Univ., Univ. of Szeged.*

9:00 N3 **311.18** Temporal and spectral dynamics of dentate gyrus pHFOs during epileptogenesis. R. T. JONES*; A. M. BARTH; L. D. ORMISTON; I. MODY. *UCLA, David Geffen Sch. of Medicine, UCLA.*

10:00 N4 **311.19** Firing dynamics of thalamic neurons and contribution of T-type Ca^{2+} channels during absence seizures in freely moving animals. C. P. MCCAFFERTY*; F. DAVID; M. VENZI; V. CRUNELLI. *Cardiff Univ.*

11:00 N5 **311.20** Ictogenic and sedative effects of γ-hydroxybutyrate (GHB): Distinguishing true absence seizures by EEG and neuronal ensemble recordings. M. VENZI*; F. DAVID; C. P. MCCAFFERTY; V. CRUNELLI. *Cardiff Univ.*

8:00 N6 **311.21** OptoKindling: Kindling, high frequency oscillations and interictal spikes in an optogenetic model of seizure. D. W. GODWIN*; M. MASICAMPO; C. E. BASS; D. C. KLORIG. *Wake Forest Sch. of Med., SUNY Buffalo.*

9:00 N7 **311.22** The epilepsy phenotype of heterozygous GABRG2(Q390X) mutation knockin ($Gabrg^{2+}$/Q390X) mice. T. A. WARNER*; J. KANG. *Vanderbilt Univ.*

10:00 N8 **311.23** Overexpression of wildtype gamma2 subunits in mouse brain can reverse the impaired GABAergic neurotransmission in Gabrg2Q390X/+ knock-in mice. X. HUANG*; C. ZHOU; W. SHEN; K. VERDIER; J. KANG; R. L. MACDONALD. *Vanderbilt Univ., Vanderbilt Univ.*

11:00 N9 **311.24** Thymoquinone enhances neurogenesis, learning and memory and suppresses mossy fiber sprouting in kainic acid model of temporal lobe epilepsy. M. S. RAO*; S. SMITHA. *Kuwait Univ.*

8:00 N10 **311.25** Fine mapping of Bis1, a mouse chromosome 4 distal gene involved in beta-carboline-induced seizures, using interval-specific congenic strains. B. MARTIN*; G. DIEUSET. *LTSI - INSERM U1099.*

9:00 N11 **311.26** Ablation of matrix metalloproteinase-9 increases excitability and reduces threshold of kainate-induced seizure. S. MURASE*; C. LANTZ; E. KIM; R. HIGGINS; N. GUPTA; M. STOPFER; D. A. HOFFMAN; E. M. QUINLAN. *Univ. Maryland, NIH, NIH, NIH.*

10:00 N12 **311.27** Spontaneous seizures and changes in neurotransmitter release in animal model of glutaric acidemia type i. M. CALCAGNOTTO*; M. V. PASQUETTI; M. GANZELLA; S. LOUREIRO; A. U. AMARAL; M. WOONTNER; S. GOODMAN; D. KOELLER; M. WAJNER; D. O. SOUZA. *UFRGS.*

POSTER

312. Animal Models of Pediatric Epilepsy

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 O1 **312.01** ▲ The long-term effects of postnatal day seven seizures on anxiety and depression in adult mice. N. AHMED*; G. SMITH; J. N. LUGO. *Baylor Univ., Baylor Univ., Baylor Univ.*

9:00 O2 **312.02** Repeated neonatal seizures disrupt the growth of primary cilia in developing cortical neurons. A. K. PARKER; M. LE; T. SMITH; G. UGARTEMENDIA; J. COLEMAN; M. R. SARKISIAN*. *Univ. Florida, Univ. Florida.*

10:00 O3 **312.03** ● Perampanel reverses early-life seizure-induced activation of the mTORC1 pathway. B. A. KIMMEY*; M. J. HANDY; S. S. SOLDAN; H. SUN; F. E. JENSEN. *Univ. of Pennsylvania, Perelman Sch. of Med.*

11:00 O4 **312.04** Preventing disordered behavior, brain structure and function by early treatment of an M-channel epilepsy phenotype. S. MARGUET*; Q. LE; A. MERSEBURG; A. NEU; F. MORELLINI; I. JAKOVCEVSKI; D. ISBRANDT. *DZNE Bonn / Univ. Hosp. Cologne, Exptl. Neurophysiol.*

8:00 O5 **312.05** Status epilepticus induces oxidative stress in immature rat. J. OTAHAL*; J. FOLBERGROVÁ; H. KUBOVÁ. *Inst. Physiol.*

9:00 O6 **312.06** ● Adiponectin protect against Kainic acid induced epileptic seizure and apoptotic neurodegeneration in developing rat brain. M. I. NASEER*; I. ULLAH; A. G. CHAUDHARY; M. RASOOL; F. BIBI; M. O. KIM. *CEGMR King Abdulaziz Univ., Gyeongsang Natl. Univ., King Abdulaziz Univ. KFMRC.*

10:00 O7 **312.07** Status epilepticus during development alters hippocampo-prefrontal synaptic plasticity and related behaviors in adult rats. R. N. RUGGIERO*; D. B. MARQUES; L. S. BUENO-JUNIOR; J. P. LEITE. *Univ. of Sao Paulo.*

11:00 O8 **312.08** Increased neuronal calcium response following neonatal seizures is prevented by treatment with AMPAR antagonist. J. J. LIPPMAN BELL*; S. S. SOLDAN; F. E. JENSEN. *Univ. of Pennsylvania Perelman Sch. of Medi, Univ. of Pennsylvania Perelman Sch. of Med.*

8:00 O9 **312.09** ▲ Environmental enrichment mitigates seizure severity and alters evoked activity in lateral amygdala of adolescent rats. A. J. ROSSI*; D. M. GIANGRASSO; H. K. ANDERSEN; S. M. YODER; K. L. PATTERSON; D. E. COBB; M. C. ZRULL. *Appalachian State Univ., Appalachian State Univ.*

9:00 O10 **312.10** ● Tau reduction prevents sudden death and ameliorates epilepsy and cognitive deficits in a mouse model of Dravet syndrome. A. L. GHEYARA; B. DJUKIC; R. PONNUSAMY; R. J. CRAFT; M. M. FINUCANE; P. E. SANCHEZ; L. MUCKE*. *Gladstone Inst. of Neurolog. Dis. and Univ. of California, San Francisco, Gladstone Inst. of Neurolog. Dis.*

10:00 O11 **312.11** Calcineurin-mediated dendrite retraction induced by epileptiform activity. J. R. CASANOVA*; M. NISHIMURA; T. T. LAM; J. T. LE; J. W. SWANN. *Baylor Col. of Med., Jan and Dan Duncan Neurolog. Res. Inst. at Texas Children's Hosp., Texas Children's Hosp.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 O12 **312.12** Nerve agent exposure in pediatric rats: Age differences in cholinesterase activity, seizure-inducing dose, neuropathology, and anticonvulsant effectiveness. S. M. MILLER*; C. B. OPPEL; E. C. MCFARLAND; M. DAILEY; J. LAKIN; W. DRIWECH; K. M. WINTER; E. DUNN; J. KOENIG; G. E. GARCIA; J. H. MCDONOUGH. *US Army Med. Res. Inst. of Chem. Def, US Army Med. Res. Inst. of Chem. Def.*

8:00 P1 **312.13** A juvenile pilocarpine model for epilepsy. C. WORMUTH*; A. PAPAZOGLOU; M. WEIERGRÄBER. *Federal Inst. For Drugs and Med. Devices.*

POSTER

313. Anticonvulsant Therapies for Seizures

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 P2 **313.01** An examination of the role of seizure-induced ischemia/hypoxia on markers of neuronal death. J. S. FARRELL*; G. C. TESKEY. *Univ. of Calgary, Hotchkiss Brain Inst., Univ. of Calgary.*

9:00 P3 **313.02** ● An assessment of acetaminophen on preventing the behavioural impairments caused by cerebral hypoxia in neonatal rats. T. BHULLAR*; G. TESKEY; J. DUNN. *Univ. of Calgary.*

10:00 P4 **313.03** COX-2 inhibition prevents severe ischemia/hypoxia following brief electrographic seizures. M. D. WOLFF*; J. S. FARRELL; B. L. GEERAERT; G. C. TESKEY. *Univ. of Calgary.*

11:00 P5 **313.04** Antiepileptogenic and neuroprotective effects of α-pinene in Pentylenetetrazol induced kindling model of epilepsy. P. D. JAIN*, JR; R. TAMBE; S. SATHAYE. *Inst. of Chem. Technol.*

8:00 P6 **313.05** Blockade of endocannabinoid hydrolysis inhibits cocaine-induced seizure and neurotoxicity. L. R. VILELA*, SR; P. GOBIRA; D. MEDEIROS; T. VIANNA; A. OLIVEIRA; F. RIBEIRO; M. MORAES; F. MOREIRA. *UFMG.*

9:00 P7 **313.06** Antiepileptogenic and antioxidant effect of Diosgenin in Pentylenetetrazole induced kindling in mice. R. M. TAMBE*, JR; P. JAIN; S. SATHAYE. *Inst. of Chem. Technol.*

10:00 P8 **313.07** Methsuximide and N-desmethylmethsuximide: From crystal structures to pharmacological activity. Y. CHEN*; T. V. TIMOFEEVA; J. HUANG; C. ORDONEZ; A. V. KRIVOSHEIN. *Hawaii Pacific Univ., New Mexico Highlands Univ., Albany Col. of Pharm. & Hlth. Sci.*

11:00 P9 **313.08** NMDA receptor blockade suppresses pentylenetetrazole-induced acute seizure and kindling by down-regulation of CREB phosphorylation. X. ZHU*; J. DONG. *Med. Sch. of Southeast Univ., Nanjing Brain Hosp.*

8:00 P10 **313.09** ● Prediction of sedative and pro-convulsive side effects of compounds revealed by phenotypic screening using primary neuron cell cultures. B. M. BADER; K. JÜGELT*; C. TEICHMANN; A. VOSS; O. H. SCHROEDER; C. EHNERT. *NeuroProof GmbH.*

9:00 P11 **313.10** Bumetanide suppresses kainic acid-induced seizures and prevents development of pharmacoresistance *in vivo* - potential cellular targets and mechanisms. S. SIVAKUMARAN*; J. MAGUIRE. *Tufts Univ., Univ. of Helsinki.*

10:00 P12 **313.11** Pharmacological profile of a 17β-heteroaryl substituted ganaxolone analog. T. JOHSNTONE; D. HOGENKAMP; M. TRAN; R. YOSHIMURA; D. REDDY; R. KANNER; K. W. GEE*. *Univ. of California, Irvine, Texas A&M Univ. health Ctr., Anvyl LLC, Univ. of California Irvine.*

11:00 Q1 **313.12** ● The selective activator of G-protein-coupled inward rectifying potassium (GIRK) channels ML297 restores seizure-threshold in aged mice. C. PASCUAL; B. ZOU; X. XIONG; L. YANG; T. CHAU; J. XIE; C. W. LINDSLEY; D. WEAVER; X. S. XIE*. *Afasci Res. Laboratory, Afasci, Inc., Stanford Univ. Sch. of Med., Vanderbilt Univ.*

8:00 Q2 **313.13** Dual orexin receptor antagonism improves sleep in the Kcna1-null mouse model of epilepsy. H. M. ROUNDTREE*; S. A. MATTHEWS; C. C. JOHNSON; T. A. SIMEONE; K. A. SIMEONE. *Creighton Univ.*

9:00 Q3 **313.14** Learning disturbances due to single epileptic seizure are diminished by preventive melatonin application(behavioral and morphological study). J. MARES; K. NOHEJLOVA; P. MADA; P. STOPKA; R. ROKYTA; R. SLAMBEROVA*; J. POKORNY. *Charles Univ., Third Fac. Med., Acad. of Sci. of Czech Rep., Charles Univ., First Fac. Med.*

10:00 Q4 **313.15** ● Evaluation of antiepileptogenic, antioxidant and genotoxic activities of Rosmarinic Acid and its metabolite Caffeic Acid using the mouse kindling model. P. PEREIRA*; V. R. COELHO; C. G. VIEIRA; L. P. SOUZA; F. MOYSÉS; C. BASSO; D. K. M. PAPKE; F. S. SANTOS; I. R. SIQUEIRA; J. N. PICADA. *Univ. Federal do Rio Grande do Sul, Univ. Luterana do Brasil.*

11:00 Q5 **313.16** Pharmacological characterization of bioactive fractions of Eclipta alba in Zebrafish and rodent models of epilepsy. M. V. GAWALI*; A. BHARADWAJ; P. JAIN; S. SATHAYE. *Inst. of Chem. Technol., Inst. of Chem. Technoloy, Inst. Of Chem. Technol., Inst. of Chem. Technol.*

8:00 Q6 **313.17** Enhanced histamine release during the pilocarpine-induced status epilepticus is associated to hippocampal neuronal damage in rats: Effects of sodium cromoglycate. M. G. VALLE DORADO*; C. SANTANA GOMEZ; S. OROZCO-SUAREZ; L. ROCHA. *CINVESTAV, Unit for Med. Res. in Neurolog. Dis.*

9:00 Q7 **313.18** The role transient receptor potential melastanin 7 (TRPM7) channels in the treatment of epilepsy. A. KHALILOVA; R. C. WYKES; M. C. WALKER*. *Univ. Col. London, Inst. Neurol.*

10:00 Q8 **313.19** Mtor inhibition after traumatic brain injury alters hilar interneuron excitability. C. R. BUTLER*; J. A. BOYCHUK; B. N. SMITH. *Univ. of Kentucky, Univ. of Kentucky.*

11:00 Q9 **313.20** High doses of mTOR inhibitor treatment fail to suppress epileptogenesis in a mouse model of mesio-temporal lobe epilepsy. N. NITTA*; F. SUZUKI; K. NOZAKI; A. DEPAULIS. *Neurosurg., Koto Mem. Hosp., Grenoble-Institut des Neurosciences.*

8:00 R1 **313.21** Inhibition but not activation of P2X7 receptors improves brain epileptiform activity in mice: Role of NOS activity. T. KELESTEMUR*; A. B. CAGLAYAN; M. C. BEKER; E. YALCIN; G. OZTURK; E. KILIC. *Istanbul Medipol Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

314. Non-Pharmacological Treatments for Seizures

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 R2 **314.01** Basic helix loop helix enhancer 40 protects against severe seizures. K. A. HAMILTON*; Y. WANG; R. WAN; A. MARINI; M. MATTSON; R. LIPSKY. *George Mason Univ., Natl. Inst. on Aging, Uniformed Services Univ. of the Hlth. Sci., Inova Hlth. Syst.*

9:00 R3 **314.02** ● Anticonvulsant properties of focal brain cooling in experimental generalized tonic-clonic seizures. Y. HE*; T. INOUE; M. FUJII; S. NOMURA; Y. MARUTA; H. KIDA; Y. OWADA; T. YAMAKAWA; T. YAMAKAWA; M. SUZUKI. *Yamaguchi Univ., Consortium for Advanced Epilepsy Treatment, Yamaguchi Univ., Yamaguchi Univ., Kumamoto Univ., fuzzy logic systems institute.*

10:00 R4 **314.03** Optimal vagus nerve stimulation frequency for suppression of spike-and-wave seizures in rats. J. JIAO*; C. SEVCENCU; K. R. HARREBY; W. JENSEN. *Fac. of Medicine, Aalborg Univ.*

11:00 R5 **314.04** Electrical stimulation suppresses inter-ictal activity in human hippocampal slices. M. HSIAO*; P. YU; D. SONG; C. Y. LIU; C. N. HECK; D. MILLETT; T. W. BERGER. *USC, USC.*

8:00 R6 **314.05** The ventral pallidum: A novel deep brain stimulation target for epilepsy. W. YU*; A. B. SMITH; J. PILITSIS; D. S. SHIN. *Albany Med. Col., Albany Med. Ctr.*

9:00 R7 **314.06** Morphological evaluation of the CA3 hippocampal neurons after transcranial focal electrical stimulation. S. MUCIO-RAMIREZ*; O. MAKEYEV; W. G. BESIO. *Inst. Nacional De Psiquiatria Ramon De La Fuente Muñiz, Univ. of Rhode Island.*

10:00 R8 **314.07** Optogenetic drive of thalamocortical neurons can block and induce experimental absence seizures in freely moving animals. H. L. TAYLOR*; V. CRUNELLI. *Cardiff Univ.*

11:00 R9 **314.08** miR-124 as a possible therapy for epileptogenesis. D. DEY*; G. P. BRENNAN; C. DUBE; S. IYER; M. YU; S. MCCLELLAND; T. Z. BARAM. *Univ. of California, Irvine, Univ. of California, Irvine, Univ. of California, Irvine.*

8:00 R10 **314.09** Silencing BDNF expression with Herpes simplex virus type-1 based amplicon vectors in an experimental model of temporal lobe epilepsy. C. FALCICCHIA*; P. TREMPAT; A. BINASCHI; M. SOUKUPOVA; P. RONCON; M. LABASQUE; S. ZUCCHINI; H. BERTHOMMÉ; M. SIMONATO. *Univ. of Ferrara, Bioviron, Univ. Claude Bernard-Lyon 1, Lab. for Technologies of Advanced Therapies (LTTA).*

9:00 R11 **314.10** ▲ Effects of transcranial focal electrical stimulation via tripolar concentric ring electrodes on electrical amygdaliod kindling in the cat. B. VILLASANA-SALAZAR*; W. G. BESIO; A. VALDÉS-CRUZ; V. M. MAGDALENO-MADRIGAL; D. MARTÍNEZ-VARGAS; S. ALMAZÁN-ALVARADO; R. FERNÁNDEZ-MAS. *Inst. Nacional De Psiquiatría Ramón De La Fuen, Univ. of Rhode Island.*

10:00 R12 **314.11** Sub-surface cortical incisions produced using tightly-focused femtosecond laser pulses block propagation of focally-initiated epileptic seizures in rodent models. R. FETCHO; S. CHETTIAR; L. LIU; J. NGUYEN; M. ZHAO; N. NISHIMURA; T. H. SCHWARTZ; C. B. SCHAFFER*. *Cornell Univ., Weill Cornell Med. Col.*

11:00 S1 **314.12** ● Electrographic seizure reduction during deep brain stimulation in chronic epileptic rats induced by pilocarpine. B. O. AMORIM*; C. HAMANI; L. COVOLAN. *Univ. Federal De São Paulo, Univ. of Toronto, Univ. Federal de São Paulo.*

8:00 S2 **314.13** Seizure suppression by optogenetic stimulation in Thy1-ChR2 transgenic mice. C. CHIANG*; T. P. LADAS; L. E. GONZALEZ-REYES; D. M. DURAND. *Case Western Reserve Univ.*

9:00 S3 **314.14** ● AAV-mediated transduction of the circuit of Papez in the sheep and its use in the investigation of an optogenetic treatment for epilepsy. W. F. KAEMMERER*; C. NIELSEN; J. GIFTAKIS; C. GRAVES; K. PARALIKAR; T. BILLSTROM; L. LENTZ; P. STYPULKOWSKI. *Medtronic Inc RCE470, Medtronic, Inc.*

10:00 S4 **314.15** REM interruption for seizure control. A. PARKAR*; B. J. GLUCKMAN. *Pennsylvania State Univ.*

11:00 S5 **314.16** ▲ Development and validation of doxycycline-regulated (Dox-On) adeno-associated viral vectors. K. A. SULLIVAN*; I. VITKO; J. M. WILLIAMSON; R. STORNETTA; D. DEY; J. KAPUR; E. PEREZ-REYES. *Univ. of Virginia, Univ. of Virginia, Univ. of Virginia, Univ. of Virginia.*

8:00 S6 **314.17** Effects of neurosphere transplanted cells from medial ganglionic eminence in epileptic rats. S. A. ROMARIZ*; D. PAIVA; M. CALCAGNOTTO; G. BARNABÉ; L. E. MELLO; B. LONGO. *Univ. Federal De São Paulo, Univ. Federal do Rio Grande do Sul, Ludwig Inst. for Cancer Res.*

9:00 S7 **314.18** Localized intracranial somatostatin gene delivery persistently reduces seizure severity in a rat model of temporal lobe epilepsy. G. NATARAJAN*; J. MCELROY; R. ZAFAR; J. ZHOU; M. KING; P. CARNEY. *Univ. of Florida, Univ. of Florida.*

10:00 S8 **314.19** Impaired function of brainstem serotonergic nuclei during seizures: Implications for depressed arousal, breathing and sudden unexpected death in epilepsy (SUDEP). Q. ZHAN*; G. F. BUCHANAN; J. E. MOTELOW; F. SEROUT; W. CHEN; A. GUMMADAVELLI; J. ANDREWS; M. FURMAN; W. LI; G. B. RICHERSON; H. BLUMENFELD. *Yale Univ., Xiangya Hospital, Central South Univ., Univ. of Iowa Hosp. and Clinics, Univ. of Iowa Hosp. and Clinics, Yale Univ., Yale Univ.*

11:00 S9 **314.20** Intralaminar thalamic neurostimulation to improve consciousness after seizures. A. GUMMADAVELLI*; J. E. MOTELOW; N. SMITH; Q. ZHAN; N. D. SCHIFF; H. BLUMENFELD. *Yale Univ. Sch. of Med., Weill-Cornell Med. Col.*

8:00 S10 **314.21** ▲ Human fetal brain-derived neural stem/progenitor cells grafted into the adult epileptic brain restrain seizures in rat models of temporal lobe epilepsy. H. LEE; S. YUN; I. KIM; I. LEE; J. SHIN; S. PARK; W. KIM; K. PARK*. *Brain Korea 21 Plus Project for Med. Science, Yonsei Univ. Col. of Med., Yonsei Univ. Coll Med., Yonsei Univ. Coll Med.*

9:00 S11 **314.22** A micro-fabricated atomic magnetometer for magnetoencephalography of epilepsy. A. M. BENISON; O. ALEM; S. KNAPPE; J. KITCHING; D. S. BARTH*. *Univ. of Colorado, Natl. Inst. of Standards and Technol.*

10:00 S12 **314.23** Selective hippocampal viral gene delivery restores normal seizure susceptibility in electroneutral Na/HCO3 co-transporter NBCn1 (slc4a7) null mice. L. E. GONZALEZ*; F. J. MOSS; W. F. BORON; D. M. DURAND. *Case Western Reserve Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 T1 **314.24** Moving epileptic focus in mice hippocampus. M. ZHANG*; D. DURAND. *Case Western Reserve Univ., CASE WESTERN RESERVE UNIVERSITY.*

11:00 T2 **314.25** ▲ Feeding restriction has anticonvulsant activity mediated by AMPK activation and epigenetics modifications in an acute seizure model in rats. J. LANDGRAVE-GÒMEZ*; O. MERCADO-GÓMEZ; V. ARRIAGA-AVILA; R. GUEVARA-GÚZMAN. *Facultad de Ciencias, U.N.A.M., Facultad de Medicina, U.N.A.M.*

POSTER

315. Spinal Cord Injury: Therapeutic Strategies I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 T3 **315.01** Recovery of locomotion by tamoxifen and exercise after a penetrating injury in thoraco-lumbar spinal cord. L. P. OSUNA CARRASCO*; B. DE LATORRE; J. R. LÓPEZ RUIZ; J. BAÑUELOS; J. M. DUENAS; S. DUENAS; I. JIMENEZ. *Univ. of Guadalajara, CINVESTAV, Univ. of Guadalajara.*

9:00 T4 **315.02** Impact of RNA regulation of the injured cord. J. GRIPENLAND*; S. SANKAVARAM; M. SVENSSON; L. BRUNDIN. *Karolinska Institutet, Dept of Clinical Neuroscience.*

10:00 T5 **315.03** Immunogenicity of human induced pluripotent stem cells-derived neural stem cells as a cell source of transplantation therapy for spinal cord injury. M. OZAKI*; G. ITAKURA; H. IWAI; J. KOHYAMA; A. IWANAMI; Y. TOYAMA; H. OKANO; M. NAKAMURA. *Dept. of Orthop. Surg., Sch. of Med., Keio Univ., Dept. of Physiology, Sch. of Medicine, Keio Univ.*

11:00 T6 **315.04** Modulation of astrocyte morphology and extracellular matrix deposition by kinase inhibitors. S. R. BECKERMAN*; J. JIMENEZ; H. AL-ALI; T. I. SLEPAK; J. L. BIXBY; V. P. LEMMON. *Univ. of Miami.*

8:00 T7 **315.05** Assessment of tumorigenic potential of induced pluripotent stem cell-derived Neural Stem / Progenitor cells. T. IIDA*; J. KOHYAMA; A. IWANAMI; R. YOSHIDA; S. NISHIMURA; H. OKANO; Y. TOYAMA; M. NAKAMURA. *Dept of Orthop, Sch. of Med, Keio Univ., Dept of Physiology, Sch. of Med, Keio Univ.*

9:00 T8 **315.06** Expression of Suppressors of Cytokine Signaling-3 (SOCS3) and its role in neuronal death after complete spinal cord injury. K. PARK; C. LIN; Y. LEE*. *Cleveland Clin.*

10:00 T9 **315.07** Neuroprotection by mesenchymal stem cell and fibrin sealant combined treatment following intramedullary axotomy. A. B. SPEJO*; R. S. FERREIRA JR; B. BARRAVIERA; A. L. R. OLIVEIRA. *Univ. of Campinas, UNESP.*

11:00 T10 **315.08** Culturing neural stem cells in 3D collagen scaffolds for engrafting Spinal Cord Injury. A. G. GRAVANIS*; A. KOURGIANTAKI; D. TZERANIS; P. EFSTATHOPOULOS; K. MYLOPOTAMITAKI; J. PEDIADITAKIS; I. YANNAS; I. CHARALAMPOPOULOS. *Foundation Of Research Technoloy-Hellas (FORTH), FORTH, MIT.*

8:00 T11 **315.09** The effect of cryopreservation on the character of human iPS cell-derived neural stem/progenitor cells transplantation therapy for spinal cord injury. Y. NISHIYAMA*; G. ITAKURA; Y. KOBAYASHI; S. NISHIMURA; H. IWAI; A. IWANAMI; Y. TOYAMA; H. OKANO; M. NAKAMURA. *Dept. of Orthopedic Surgery, Sch. of Medicine, Keio Univ., Dept. of Physiology, Sch. of Medicine, Keio Univ.*

9:00 T12 **315.10** Long-term grafts of human neural stem cells after spinal cord injury: Axonal persistence and glial migration. P. P. LU*; Y. WANG; L. GRAHAM; D. WU; E. BOEHLE; M. H. TUSZYNSKI. *UCSD, VA San Diego Healthcare Syst.*

10:00 U1 **315.11** The impact of delayed fetal spinal cord tissue transplantation on respiratory recovery in rats with mid-cervical spinal cord injury. K. LEE*; Y. SHAO; S. LAI. *Natl. Sun Yat-sen University, Dept. Biol. Sci.*

11:00 U2 **315.12** Intrathecal coral-derived compound improves functional recovery after experimental spinal cord injury through its anti-apoptotic and anti-inflammatory effects. C. CHEN*; S. HUANG; C. FENG; H. HUNG; C. HSU; Z. WEN; W. CHEN. *Natl. Sun Yat-Sen Univ., Natl. Sun Yat-Sen Univ., Kaohsiung Chang Gung Mem. Hosp. and Chang Gung Univ. Col. of Med.*

8:00 U3 **315.13** Combined intravenous and intraspinal delivery of mesenchymal progenitor and neural stem cells in an acute cervical spinal cord injury. G. W. PLANT*; C. CZISCH; A. R. HARVEY; S. LEE. *Stanford Univ., The Univ. of Western Australia.*

9:00 U4 **315.14** Graft of NSC-derived neural network restore disrupted neuronal circuitry after rat spinal cord transection. B. Q. LAI*, JR; Y. ZENG. *Sun Yat-Sen Univ., Sun Yat-sen Univ.*

10:00 U5 **315.15** Early intravenous delivery of mesenchymal progenitor cells leads to behavioral and pathological amelioration after cervical spinal cord injury. S. LEE*; C. CZISCH; Y. HUANG; M. H. HAN; A. R. HARVEY; G. W. PLANT. *Stanford Univ., Stanford Univ., The Univ. of Western Australia.*

11:00 U6 **315.16** Continued exercise is necessary to prevent the onset of neuropathic pain after spinal cord injury. M. R. DETLOFF*; D. QUIROS MOLINA; K. N. VANNIX; J. D. HOULE. *Drexel Univ. Col. of Med.*

8:00 U7 **315.17** Overexpression of Sox11 in corticospinal tract neurons promotes axon growth but interferes with functional recovery after spinal injury. Z. WANG*; A. REYNOLDS; A. KIRRY; M. BLACKMORE. *Marquette Univ.*

9:00 U8 **315.18** Systemic PTEN antagonist peptides promote axon growth and functional recovery after spinal cord injury. Y. OHTAKE*; D. PARK; P. M. ABDUL-MUNEER; H. LI; B. XU; K. SHARMA; G. M. SMITH; M. E. SELZER; S. LI. *SHPRC, Temple Univ. Sch. of Med., UT Southwestern Med. Ctr., SHPRC, Temple Univ. Sch. of Med., SHPRC, Temple Univ. Sch. of Med., SHPRC, Temple Univ. Sch. of Med.*

10:00 U9 **315.19** Expressing constitutively-active Rheb in adult neurons after a complete spinal cord injury enhances axonal regeneration beyond a chondroitinase-treated glial scar. D. WU*; M. KLAW; N. KHOLODILOV; R. BURKE; V. TOM. *Drexel Univ. Col. of Med., Columbia Univ., Columbia Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 U10 **315.20** Tamoxifen treatment promotes locomotor recovery, increases white matter spared tissue and decreases reactive gliosis after chronic spinal cord injury. J. M. COLON*; A. CAJIGAS; J. M. SANTIAGO; A. I. TORRADO; I. K. SALGADO; N. GRAFALS; J. D. MIRANDA. *Univ. of Puerto Rico Sch. of Med., Univ. of Puerto Rico.*

8:00 U11 **315.21** Amiloride promotes the survival of oligodendrocyte precursor cells and remyelination after spinal cord injury in rat. T. IMAI*. *Dept. of Orthopaedic Surgery Tokai Universit.*

9:00 U12 **315.22** A comparison of human mesenchymal stem cells and two types of neural stem cells for the treatment of spinal cord injury in rats. J. RUŽICKA*; L. MACHOVÁ URDZÍKOVÁ; M. LABAGNARA; K. KÁROVÁ; E. SYKOVÁ; M. JHANWAR-UNIYAL; P. JENDELOVÁ. *Inst. of Exptl. Medicine, ASCR, 2nd Fac. of Medicine, Charles Univ., New York Med. Col.*

10:00 U13 **315.23** Activation of GSK-3β to reduce abnormal primary afferent outgrowth and the development of neuropathic pain following spinal cord injury. S. K. BAREISS*; E. DUGAN; K. L. BREWER. *East Carolina Univ., East Carolina Univ.*

11:00 U14 **315.24** The role of BDNF in bone marrow stromal cell - mediated spinal cord repair. G. J. RITFELD*; A. PATEL; A. CHOU; T. L. NOVOSAT; D. G. CASTILLO; R. A. C. ROOS; M. OUDEGA. *Univ. of Pittsburgh Sch. of Med., Carnegie Mellon Univ., Johns Hopkins Univ., Leiden Univ. Med. Ctr.*

8:00 U15 **315.25** Transplantation of human iPS cell-derived oligodendrocyte precursor cells for chronic spinal cord injury in adult mice. S. KAWABATA*; M. TAKANO; G. ITAKURA; Y. NUMASAWA; Y. KOBAYASHI; S. SHIBATA; A. IWANAMI; H. OKANO; Y. TOYAMA; M. NAKAMURA. *Dept. of Orthopaedics Surgery, Sch. of Medicine, Keio Univ., Dept. of Physiology, Sch. of Medicine, Keio Univ., Dept. of Pediatrics, Sch. of Medicine, Keio Univ.*

9:00 U16 **315.26** Transplantation of human embryonic stem cell derived motor neurons into the lumbar spinal cord to improve bladder function after a cauda equina and/or conus medullaris injury. A. A. AMIN*; H. H. CHANG; D. M. MOORE; S. RANA; S. NAZARIAN; B. G. NOVITCH; H. I. KORNBLUM; L. A. HAVTON. *Univ. of California, Irvine, Univ. of California Los Angeles.*

10:00 U17 **315.27** Low immunogenicity of mouse iPS derived neural stem cells. G. ITAKURA*; Y. NISHIYAMA; S. KAWABATA; K. HORI; M. OZAKI; T. IIDA; K. MATSUBAYASHI; S. TASHIRO; H. IWAI; S. NISHIMURA; A. IWANAMI; Y. TOYAMA; M. NAKAMURA; H. OKANO. *Dept. of Orthopaedic Surgery, Sch. of Medicine, Keio Univ., Dept. of Physiology, Sch. of Medicine, Keio Univ.*

11:00 U18 **315.28** Biological mechanisms underlying low-dose carbon monoxide-mediated spinal cord protection. Y. D. TENG*; I. B. HAN; X. ZENG; Z. ALJUBOORI; A. E. ROPPER; D. YU; J. E. ANDERSON; E. IFEDIGBO; A. M. K. CHOI. *Harvard Med. School/brigham&women's Hosp., VA Boston Healthcare Syst., Spaulding Rehabil. Hospital/ HMS, CHA Univ., Harvard Med. School/Brigham & Women's Hosp., Weill Cornell Med. Ctr.*

8:00 U19 **315.29** Specific properties of bone marrow mesenchymal and neural crest-derived stem cells: Relevance in spinal cord injury therapy. V. NEIRINCKX*; A. MARQUET; V. DION; B. ROGISTER; R. FRANZEN; S. WISLET. *Univ. of Liège, Univ. of Liège, CHU Liège.*

POSTER

316. Neurodegeneration II

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 U20 **316.01** A causal role for inflammation in the pathogenesis of Lyme neuroborreliosis. G. RAMESH*; P. J. DIDIER; D. S. MARTIN; L. SANTANA-GOULD; L. A. DOYLE-MEYERS; M. B. JACOBS; J. D. ENGLAND; M. T. PHILIPP. *Tulane Natl. Primate Res. Ctr., Louisiana State Univ. Hlth. Sci. Ctr.*

9:00 U21 **316.02** Targeting Tumor Necrosis Factor-Related Apoptosis-Inducing Ligand ameliorates retinal pathology in a triple transgenic mouse model of Alzheimer's disease. I. DEIDDA; G. DI BENEDETTO; R. BERNARDINI; P. GUARNERI; G. CANTARELLA*. *CNR, Univ. of Catania, Med. School, Italy.*

10:00 U22 **316.03** Nlrp3 inflammasome is activated immediately upon the optic nerve crush injury in the mouse retina. Z. PUYANG*; L. FENG; H. CHEN; P. LIANG; J. TROY; X. LIU. *Northwestern Univ., Shanghai Jiao Tong Univ., Northwestern Univ., Northwestern Univ.*

11:00 U23 **316.04** Effects of the 5α-reductase inhibitors Finasteride and Dutasteride on dopaminergic neurons in a mouse model of Parkinson's disease. N. LITIM*; M. BOURQUE; S. AL SWEIDI; M. MORISSETTE; T. DI PAOLO. *Neurosci. Res. Unit, Ctr. De Recherche Du CHU De Q, Fac. of Pharmacy, Laval Univ.*

8:00 U24 **316.05** Acute liver failure-induced hepatic encephalopathy is associated with changes in microRNA expression profiles in cerebral cortexof the rat. V. R. SILVA*; R. VEMUGANTI; S. L. MEHTA; A. S. HAZELL. *Campinas State UniversitY, Univ. of Wisconsin, Univ. of Montreal.*

9:00 U25 **316.06** Progesterone rescue dopaminergic neurons in the MPTP mouse model of Parkinson's disease. M. BOURQUE*; M. MORISSETTE; T. DI PAOLO. *Ctr. De Recherche Du CHU De Quebec, CHUL, Laval Univ.*

10:00 U26 **316.07** Extensive and persistent disruption of neurovascular coupling by a single cerebral microinfarct. P. M. SUMMERS*; Z. J. TAYLOR; A. Y. SHIH. *Med. Univ. of South Carolina.*

11:00 U27 **316.08** Actin remodeling of astrocytes by Rac1 has a role in the protection induced by CDK5 silencing in excitotoxicity condition. R. A. POSADA-DUQUE*; V. PALACIO-CASTAÑEDA; J. GUTIERREZ-VARGAS; G. CARDONA-GOMEZ. *Group of Neurosciences of Antioquia. Area of Cell. and Mol. Neurobio.*

8:00 U28 **316.09** Deciphering the cerebral microinfarct using rodent models and multi-modal MRI. A. Y. SHIH*; E. S. HUI; Z. J. TAYLOR; X. NIE; R. L. DEARDORFF; J. H. JENSEN; J. A. HELPERN. *Med. Univ. of South Carolina, The Univ. of Hong Kong, Med. Univ. of South Carolina.*

9:00 U29 **316.10** Pericyte response to ischemic injury *in vivo.* R. G. UNDERLY*; A. Y. SHIH. *Med. Univ. of South Carolina.*

10:00 U30 **316.11** Neurotoxic NAD+ depletion leads to PARP-1-dependent PGC-1α hyperacetylation and mitochondrial dysfunction. P. LU*; A. KAMBOJ; C. M. ANDERSON. *Kleysen Inst. For Advanced Med., Univ. of Manitoba.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 U31 **316.12** Whole exome sequencing identifies novel variants and pathways in ALS. K. B. AHMETI; Y. YANG; F. FECTO; N. SIDDIQUE; M. PERICAK-VANCE; H. DENG*; T. SIDDIQUE. *Northwestern Univ. Feinberg Sch. of Med., John P. Hussman Inst. for Human Genomics.*

8:00 U32 **316.13** OCIAD1 mediates mitochondria-associated neurodegeneration in Alzheimer's disease. X. LI*; Z. YIN; F. LI; Y. LI; Z. ZHAO; J. J. MANCUSO; H. ZHAO; W. LE; S. T. C. WONG. *Houston Methodist Res. Inst, Weill Cornell Med. Co, Houston Methodist Res. Institute, Weill Cornell Med. Co, Inst. of Hlth. Science, SIBS, CAS.*

9:00 U33 **316.14** Targeting TNF receptors in models of Alzheimer's disease. U. L. EISEL*; Y. DONG; P. NAUDÉ. *Univ. of Groningen.*

10:00 U34 **316.15** Autophagy impairment in the preproliferative diabetic retinopathy: A new target for estradiol prevention. C. CASCIO*; D. RUSSO; I. DEIDDA; G. GALIZZI; A. MAENZA; G. CASSATA; P. GUARNERI. *IBIM - CNR, IZS.*

11:00 U35 **316.16** Screening diseased and normal optic nerve and retina for microRNAs involved in glaucomatous optic neuropathy. T. GAASTERLAND*; A. N. DUBINSKY. *UCSD.*

POSTER

317. Neuroinflammation and Neurological Diseases

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 U36 **317.01** Excitatory post-synaptic injury in a model of multiple sclerosis gray matter degeneration. M. J. BELLIZZI; K. ALLAN; S. LU*; H. A. GELBARD. *Univ. of Rochester Med. Ctr.*

9:00 V1 **317.02** Dual role of regulatory T cells in CNS injury. J. ZHENG*; J. WALSH; I. SMIRNOV; U. LORENZ; K. TUNG; J. KIPNIS. *Univ. of Virginia, Univ. of Virginia, Univ. of Virginia, Univ. of Virginia, Univ. of Virginia, Univ. of Virginia, Univ. of Virginia, Univ. of Virginia.*

10:00 V2 **317.03** Imaging of neuritis - SPECT/CT and PET/CT as tools for modeling of perineural inflammation. T. HUHTALA; M. CERRADA-GIMENEZ*; S. HE; K. SAVOLAINEN; J. HARRIS; P. SWEENEY; M. CERRADA-GIMENEZ; U. HERZBERG; A. NURMI. *Charles River Discovery Res. Services Finland Ltd, Celgene Cell. Therapeut.*

11:00 V3 **317.04** Short-latency H-Reflex suppression by ipsilateral TMS in stroke patients. G. F. COLLINS; B. MONDAL; H. KUMAR; S. N. BAKER; M. R. BAKER*. *Newcastle Univ., Inst. of Neurosci. Kolkata.*

8:00 V4 **317.05** Migration of neutrophils targeting amyloid plaques in Alzheimer's disease mouse model. S. BAIK*; M. CHA; Y. HYUN; H. CHO; B. HAMZA; D. KIM; S. HAN; H. CHOI; K. KIM; M. MOON; W. LEE; J. LEE; M. KIM; D. IRIMIA; I. MOOK-JUNG. *Seoul Natl. Univ., Univ. of Rochester, Harvard Med. Sch., Seoul Natl. Univ.*

9:00 V5 **317.06** ▲ Tryptophan metabolism in the serum and cerebrospinal fluid in borrelia burgdorferi infected patients. B. KEPPLINGER*; B. SEDLNITZKY-SEMLER; C. KRONSTEINER; J. REUSS; N. BADAWI; R. SOBOTA; H. BARAN. *Karl Landsteiner Res. Institute, Mauer, SeneCura Neuro-Reha-Zentrum, Neurolog. Department, Landesklinikum Mauer, Neurolog. Department, Landesklinikum Amstetten, Div. of Neurophysiology, Dept. of Biomed. Sciences, Vet. Med. Univ. Vienna.*

10:00 V6 **317.07** Neuroinflammation in pediatric CNS tuberculosis. E. W. TUCKER*; S. POKKALI; Z. ZHANG; E. NANCE; F. ZHANG; C. ROBERTSON; S. JAIN; S. KANNAN. *Johns Hopkins Hosp., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

11:00 V7 **317.08** Effects of probiotics on brain expression of pro-inflammatory cytokines in mice susceptible to social defeat. M. AUDET*; J. PRESTI-TORRES; D. ELLEITHY; M. MURACK; H. ANISMAN; Z. MERALI. *U of Ottawa Inst. of Mental Hlth. Res., Carleton Univ.*

8:00 V8 **317.09** Near-infrared low level light therapy as a treatment for peripheral neuropathy. T. W. CLOUGH; E. PAYNE; J. S. GUFFEY; S. D. MOTTS*. *Arkansas State Univ.*

9:00 V9 **317.10** Effect of 7, 8-dihydroxyflavone on Th1, Th2 and Th17 cytokine production in an animal model of multiple sclerosis. T. K. MAKAR*; V. K. C. NIMMAGADDA; F. MUBARIZ; S. RAY; D. TRISLER; S. I. V. JUDGE; C. T. BEVER, Jr. *Univ. of Maryland Baltimore, MS center of Excellence-EAST, VA Maryland Hlth. Care Syst.*

10:00 V10 **317.11** Implication of nod-like receptor, nlrp12, in attenuating inflammation in multiple sclerosis. T. M. MAHVELATI*; E. IMBEAULT; D. GRIS. *Univ. of Sherbrooke.*

11:00 V11 **317.12** Status epilepticus induces robust brain infiltration of circulating Ccr^{2+} monocytes. N. H. VARVEL*; J. J. NEHER; R. J. MILLER; M. JUCKER; R. DINGLEDINE. *Emory Univ., Hertie Inst. For Clin. Brain Res., DZNE - German Ctr. for Neurodegenerative Dis., Northwestern Univ.*

8:00 V12 **317.13** ▲ Contribution of age on the inflammatory effect of traumatic brain injury on ascending catecholaminergic systems. S. E. ROYER*; J. M. MORGANTI; S. C. HOPP; A. CHOU; H. M. D'ANGELO; T. D. JOPSON; A. M. CROCKETT; L. ADZOVIC; S. ROSI; G. L. WENK. *Ohio State Univ., Univ. of California San Francisco, Ohio State Univ.*

9:00 V13 **317.14** Celecoxib attenuates long-lasting brain dopaminergic neuronal injury and improves motor behavioral performance in adult rats exposed to lipopolysaccharide neonatally. H. ZHU*; J. SHEN; A. K. KAIZAKI; L. TIEN; Y. PANG; J. P. SHAFFERY; S. TANAKA; S. NUMAZAWA; A. J. BHATT; L. FAN. *UMMC, Showa Univ., Fu Jen Catholic Univ., UMMC.*

POSTER

318. Neuro-Oncology I

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 V14 **318.01** Regulation of Na,K-ATPase by Sonic hedgehog signaling in cerebellar granule precursor cells. S. LEE; Z. LI; A. LITAN; B. GRAVES; S. P. BARWE; S. A. LANGHANS*. *A I Dupont Hosp For Children.*

9:00 V15 **318.02** Engineered hNSCs for treating experimental spinal cord gliomas: A neurobiology based approach. X. ZENG*; A. E. ROPPER; J. E. ANDERSON; Z. ALJUBOORI; D. YU; H. J. LEE; S. U. KIM; Y. D. TENG. *Brigham and Women's Hosp/Harvard Med. Sch., Veterans Affairs Boston Healthcare Syst., Med. Res. Institute, Chung-Ang Univ. Col. of Med., Univ. of British Columbia, Harvard Med. School/Spaulding Rehabil. Hosp.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 V16 **318.03** Blockade of the CXCL12/CXCR4 signaling axis improves survival in an aggressive de novo model of glioblastoma multiforme by inhibiting expansion and migration into the tumor of myeloid derived suppressor cells. A. CALINESCU*; M. MORENO-AYALA; B. KOLB; P. R. LOWENSTEIN; M. G. CASTRO. *Univ. of Michigan, Univ. of Michigan.*

11:00 V17 **318.04** Brain metastasis in cancer and tissue repair post stroke share similar microenvironments and signaling systems. R. PRAKASH*; M. MACHNICKI; I. WITZ; S. CARMICHAEL. *UCLA, Univ. of California Los Angeles, Tel Aviv Univ.*

8:00 V18 **318.05** Evaluation of the oxidative damage in human malignant gliomas obtained from patients during neurosurgery in the Civilian Hospital of Guadalajara. M. A. RAMIREZ-HERRERA*; M. L. MENDOZA-MAGAÑA; V. C. GUTIÉRREZ- GALLEGOS; E. N. ORENDAIN-JAIME; A. A. RAMIREZ-MENDOZA; L. HERNANDEZ-HERNANDEZ; L. E. AGUIRRE-PORTILLO; J. L. CERVANTES-MICHEL; F. J. LOPEZ-GONZALEZ. *Univ. Guadalajara Ctr. Univ. Ciencias Salud, Hosp. Civil de Guadalajara.*

9:00 V19 **318.06** The role of phosphorylated p48 Ebp1 in glioblastoma. I. HWANG*; H. KO; K. LEE; J. AHN. *Sungkyunkwan Univ. Sch. of Med.*

10:00 V20 **318.07** Modification of calcium signaling in SH-SY5Y neuroblastoma cells upon chemotherapy with cisplatin (CDDP) and topotecan (TOPO). D. BUSSELBERG*; E. VARGHESE; G. REIFENBERGER; A. FLOREA. *Weill Cornell Med. Col. In Qatar, Heinrich Heine Univ. Düsseldorf.*

11:00 V21 **318.08** Evidence of HuR protein dimerization *in vitro.* N. FILIPPOVA*; X. YANG; L. B. NABORS. *Univ. of Alabama At Birmingham (UAB).*

8:00 V22 **318.09** The role of C/EBPβ in the regulation of progesterone receptor expression in human astrocytoma cell lines. V. HANSBERG PASTOR*; A. GONZALEZ-ARENAS; I. CAMACHO-ARROYO. *UNAM.*

9:00 V23 **318.10** ● Conjugation of the brain penetrant angiopep-2 peptide to therapeutic anti-HER2 mAb (Ang4043) and antibody-drug conjugates for the treatment of HER2-positive brain metastases. M. DEMEULE*; G. YANG; C. CHE; S. DAS; S. TRIPATHY; J. CURRIE; S. LORD-DUFOUR; A. REGINA; J. CASTAIGNE. *Angiochem Inc.*

10:00 V24 **318.11** MRI measurements in patients and mice indicate cranial radiation in childhood results in increased cortical thickness. B. J. NIEMAN*; A. DE GUZMAN; J. P. LERCH; D. J. MABBOTT. *Hosp. For Sick Children, Univ. of Toronto, Ontario Inst. for Cancer Res., Hosp. for Sick Children, Univ. of Toronto.*

11:00 V25 **318.12** ▲ Effects of progesterone in the migration and the activation of actin-binding proteins moesin and cofilin in human astrocytoma cells. A. G. PIÑA*; A. GONZALEZ-ARENAS; I. CAMACHO-ARROYO. *UNAM.*

8:00 V26 **318.13** ▲ Regulation of the growth and infiltration of human astrocytoma cells by progesterone in the cerebral cortex of the rat. L. GERMÁN-CASTELÁN*; J. MANJARREZ-MARMOLEJO; A. GONZÁLEZ-ARENAS; M. GONZÁLEZ-MORÁN; I. CAMACHO-ARROYO. *UNAM, INNN MVS, UNAM.*

9:00 V27 **318.14** ● Aerobic glycolysis in glial brain tumors. A. G. VLASSENKO*; L. E. COUTURE; Y. SU; P. MASSOUMZADEH; M. V. MILCHENKO; J. MCCONATHY; D. S. MARCUS; M. E. RAICHLE; S. JOST FOUKE; T. L. BENZINGER. *Washington Univ., Swedish Neurosci. Specialists Ivy Brain Tumor Ctr.*

10:00 V28 **318.15** ▲ Bone marrow-derived mesenchymal stem cells in the suppression of highly proliferative glioblastoma multiforme. L. D. HUFFMAN*; D. J. DUES; A. CRANE; K. R. IDYLE; E. S. DWENGER; K. D. FINK; J. ROSSIGNOL; G. L. DUNBAR. *Central Michigan Univ., Central Michigan Univ., Univ. of California, Central Michigan Univ., Field Neurosciences Inst.*

11:00 V29 **318.16** Metabolic disruption potentiates temozolomide cytotoxicity in glioblastoma. S. MUKHERJEE*; R. P. TOBIN; S. K. ROGERS; L. DAO; J. KAIN; G. DUSIO; S. SINGEL; E. FONKEM; M. K. NEWELL-ROGERS. *Texas A & M, Texas A and M Hlth. Sci. Ctr., Univ. of Texas Austin, Scott and White Healthcare.*

8:00 V30 **318.17** Neurons promote glioma growth in an activity-dependent manner. H. S. VENKATESH; V. CARETTI; T. JOHUNG; A. NOLL; M. MONJE*. *Stanford Univ.*

9:00 V31 **318.18** Clinico-radiological profile of neurocysticercosis patients & outcomes at BPKM Cancer Hospital. Q. H. ANSARI*; L. N. SING; A. PANDIT; B. K. THAPA. *BPKM Cancer Hosp., BPKM Cancer Hosp., Surya Ganga Inst. of Med. Sci. and Technol.*

10:00 V32 **318.19** Effects of human brain and glioblastoma endothelial cell exosomes on primary glioblastoma stem-like cell lines. J. A. DOBROWOLSKA*; S. J. TAYLOR; J. R. LEONARD. *The Res. Inst. at Nationwide Children's Hosp., Washington Univ. in St. Louis.*

11:00 W1 **318.20** Tumor suppressor p42 Ebp1 controls p85 regulatory subunit of PI3K stability in GBM. H. KO; K. LEE; J. AHN*. *Sungkyunkwan Univ. Sch. of Med., Sungkyunkwan Univ. Sch. of Med., Sungkyunkwan Univ. Sch. Med.*

8:00 W2 **318.21** TNF promotes glioma cell adhesion and invasion in a novel surface/matrix culture system. M. E. BARISH*; N. BAGHDADCHI; A. DICKAN; N. KHOSH; V. MAHADEV; S. J. FORMAN; C. E. BROWN. *City of Hope, Beckman Res. Inst., City of Hope Natl. Med. Ctr.*

9:00 W3 **318.22** PKCα and PKCδ activation regulates transcriptional activity and degradation of progesterone receptor in human astrocytoma cells. A. GONZÁLEZ-ARENAS*; M. A. PEÑA-ORTIZ; V. HANSBERG-PASTOR; B. MARQUINA-SÁNCHEZ; N. BARANDA-AVILA; K. NAVA-CASTRO; A. CABRERA-WROOMAN; I. CAMACHO-ARROYO. *Univ. Nacional Autónoma De México, Univ. Nacional Autónoma de México, Inst. Nacional de Cancerología, Univ. Nacional Autónoma de México.*

10:00 W4 **318.23** ▲ Progesterone induced blocking factor is hormonally regulated and increases the growth of astrocytoma grade III cells through IL-4R/STAT6 pathway. P. VALADEZ-COSMES*; M. LÓPEZ-SÁNCHEZ; D. C. JIMÉNEZ-ARELLANO; A. GONZÁLEZ-ARENAS; I. CAMACHO-ARROYO. *UNAM.*

11:00 W5 **318.24** Membrane Depolarization is a Medulloblastoma tumor suppressor. L. GARZIA*; A. M. DUBUC; G. M. PITCHER; X. HUANG; P. A. NORTHCOTT; A. MARIAMPILLAI; S. MACK; P. SKOWRON; X. WU; C. HAWKINS; K. ZAYNE; S. CROUL; F. D. MILLER; J. T. RUTKA; A. A. HUANG; C. HAMANI; K. DEISSEROTH; V. X. D. YANG; M. W. SALTER; M. D. TAYLOR. *Hosp. For Sick Children, Univ. of California S. Francisco, Ryerson Univ., Univ. Hlth. Network, Stanford Univ.*

8:00 W6 **318.25** Role of adenosine receptors in survival and differentiation of glioblastoma stem cells. S. DANIELE; M. TRINCAVELLI; E. ZAPPELLI; L. NATALI; C. GIACOMELLI; C. MARTINI*. *Univ. of Pisa.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 W7 **318.26** Impact of lysosomal activity on exosome-mediated neural cell survival signaling. E. EITAN*; K. W. WITWER; M. P. MATTSON. *Natl. Inst. On Aging, Johns Hopkins Univ. Sch. of Med.*

10:00 W8 **318.27** Effects of epigenetic modulators 5-aza-2′-deoxycytidine (5-AZA) and trichostatin A (TSA) on calcium signaling and drug-induced cytotoxicity in SH-SY5Y cells *in vitro.* A. M. FLOREA*; E. VARGHESE; G. REIFENBERGER; D. BÜSSELBERG. *Heinrich Heine Univ. Düsseldorf, Uniklinikum, Weill Cornell Med. Col. in Qatar.*

POSTER

319. Neuro-Oncology II

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 W9 **319.01** The formation and function of tunneling nanotubes in rat astrocytes-C6 glioma cells co-culture system. L. ZHANG*; Y. ZHANG. *Col. of Life Sciences, Peking Univ.*

9:00 W10 **319.02** Restoration of c-Cbl function as a critical therapeutic target in glioblastoma multiforme that integrates multiple nodes of cancer control. J. L. STRIPAY*; B. M. STEVENS; A. L. BARDIN; M. D. NOBLE. *Univ. of Rochester, Univ. of Rochester.*

10:00 W11 **319.03** Amyloid-β-binding alcohol dehydrogenase modulates mitochondrial function contributing to neuroblastoma cell growth. E. A. CARLSON*; F. DU; V. K. RAO; S. S. YAN. *Univ. of Kansas.*

11:00 W12 **319.04** Alteration of small world anatomical networks in the patients with brain lesions. S. PAUL*; V. MEHTA; P. ROY. *Natl. Brain Res. Ctr., PARAS Hosp.*

8:00 W13 **319.05** Role of glutamate-cysteine ligase in tuberous sclerosis-related aberrant growth. A. R. MALIK; A. SKAŁECKA; E. LISZEWSKA; M. URBANSKA; L. SWIECH; M. PERYCZ; K. KOTULSKA; S. JOZWIAK; J. JAWORSKI*. *Intl. Inst. of Mol. and Cell Biol., The Children's Mem. Hlth. Inst.*

9:00 W14 **319.06** Hexokinase 2 activity modulates cofilin mediated actin dynamics to affect MHC Class I-mediated immune functions in TNF treated glioma cells. S. GHOSH*; P. GUPTA; E. SEN. *Natl. Brain Res. Ctr.*

10:00 W15 **319.07** Low-affinity neurotensin receptors (NTSR2 and NTSR2v) mediate the internalization-dependent activation of ERK 1/2 in glioma cells and allow neurotensin-polyplex transfection. A. AYALA-SARMIENTO; J. SEGOVIA-VILA; D. MARTINEZ-FONG*. *CINVESTAV- IPN.*

11:00 W16 **319.08** Hif-1α and Hif-2α differentially regulate Notch signaling through competitive interaction with the intracellular domain of Notch receptors in glioma stem cells. M. ZHENG*; Y. HU; L. FU; H. HAN. *Fourth Military Med. Univ., Fourth Military MedicalUniversity.*

8:00 W17 **319.09** Na+/H+ exchanger isoform-1 (NHE1) is involved in glioma-stimulated microglia activation that promotes glioma cell migration. W. ZHU*; P. A. CLARK; J. S. KUO; D. SUN. *Univ. of Pittsburgh, Univ. of Wisconsin Sch. of Med. and Publ. Hlth., Univ. of Wisconsin Sch. of Med. and Publ. Hlth., Veterans Affairs Pittsburgh Hlth. Care System, Geriatric Research, Educational and Clin. Ctr.*

9:00 W18 **319.10** Identification of an abnormal cell population characterized by RAS/ERK activation in NF1-associated optic gliomas. E. JECROIS*; M. BORNHORST; Y. WANG; Y. ZHU. *Univ. of Michigan, Univ. of Michigan, Children's Natl. Med. Ctr.*

10:00 W19 **319.11** Effect of a combined treatment using a soluble form of GAS1 together with Temozolamide on glioma growth. S. LEMUS-PÉREZ; A. NAVARRETE; J. V. SEGOVIA-VILA*. *Cinvestav-IPN.*

11:00 W20 **319.12** Indolinone Maz51 induces cell rounding and G2/M cell cycle arrest in glioma cells without the inhibition of VEGFR-3 phosphorylation: Involvement of RhoA and Akt/GSK3β signaling pathway. J. PARK*. *Dept. of Anatomy, Col. of Medicine, The Catholic Univ. of Korea.*

8:00 W21 **319.13** Intratumoral heterogeneity regulates the migration and survival of human glioma cells. H. LIN*; H. LIN; D. LU. *Natl. Chung Hsing Univ., Natl. Chung Hsing Univ., Grad. Inst. of Neural and Cognitive Sci.*

9:00 W22 **319.14** Human neurospheres xenograft high grade glioma in rat brain. J. B. YÁÑEZ-JÁCOME; I. A. FERIA-ROMERO*; S. OROZCO-SUÁREZ. *Inst. Politécnico Nacional, Inst. Mexicano Del Seguro Social, Inst. Mexicano del Seguro Social.*

10:00 W23 **319.15** Pivotal role of redox status in regulating glioma glutamate handling. Y. ZHOU*; R. LIN; B. R. RANSOM; Z. YE. *Fujian Med. Univ., Univ. of Washington.*

11:00 W24 **319.16** Optogenetic inhibition of primary human malignant glioma. F. YANG*; J. TU; Y. LIU; P. WEI; L. WANG. *Shenzhen Inst. of Advanced Technol.*

8:00 W25 **319.17** Colchicine derivative as a potential anti-glioma compound. Y. LIEN; C. CHENG; K. FANG; C. LI; J. LIU; S. TZENG*. *Dept. of Life Sciences, Natl. Cheng Kung Univ., Dept. of Med. Lab. Sci. and Biotechnology, Dept. of Med. Lab. Sci. and Biotechnology, Taipei Med. Univ., Natl. Cheng Kung Univ.*

9:00 W26 **319.18** Activation of Rho GTPases prevents tumor growth and preserves neuronal functions in a murine model of glioma. E. VANNINI; A. PANIGHINI; C. CERRI; F. OLIMPICO; M. COSTA; M. CALEO*. *Neurosci. Institute, C.N.R.*

POSTER

320. Psychosis: Brain Imaging and EEG Studies

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 W27 **320.01** Comparison of different creativity between bipolar patients and healthy controls and correlate with structural connections in the brain: preliminary findings. T. T. SU*; Y. KUAN; P. TU; T. KUO. *Veterans Gen. Hosp, Natl. Yang-Ming Univ., Natl. Yang-Ming Univ., Taipei Veterans Gen. Hosp., Taipei Veterans Gen. Hosp.*

9:00 W28 **320.02** Modulation of neural oscillation as a function of time during working memory in patients with schizophrenia. F. STEFFEN-ALLEN*; R. P. SO; L. S. KEGELES; C. CHEN. *Univ. of Connecticut, Columbia Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 W29 **320.03** ● Neuropsychiatric biomarkers hidden in global signal: Focus on schizophrenia and bipolar illness. G. J. YANG*; J. D. MURRAY; G. REPOVS; M. W. COLE; A. SAVIC; M. F. GLASSER; C. PITTENGER; J. H. KRYSTAL; X. WANG; G. D. PEARLSON; D. C. GLAHN; A. ANTICEVIC. *Yale Univ., New York Univ., Univ. of Ljubljana, Rutgers Univ., Univ. of Zagreb, Washington Univ. in St. Louis.*

11:00 W30 **320.04** Ketamine induced neural oscillatory and neurochemical changes in healthy controls: A simultaneous EEG-MRS study. E. STOLZ*; L. S. KEGELES; J. J. CHROBAK; C. A. CHEN. *Univ. of Connecticut, Univ. of Connecticut, Columbia Univ.*

8:00 W31 **320.05** Reduced structural and functional connectivity of salience network in persons at-risk for psychosis. C. WANG*; Z. HONG; J. LEE; J. POH; Z. LI; Y. CHIA; S. YAAKUB; R. KRISHNAN; R. KEEFE; R. ADCOCK; S. WOOD; M. CHEE; J. ZHOU. *Duke-Nus Grad. Med. Sch., Duke-NUS Grad. Med. Sch., Inst. of Mental Hlth., Duke Univ., Univ. of Birmingham.*

9:00 W32 **320.06** The relationship of clinical and striatal neurophysiological responses to antipsychotic medication in psychosis. L. YANKOWITZ; D. P. EISENBERG; A. IANNI; D. RUBINSTEIN; P. KOHN; D. R. WEINBERGER; J. CZARAPATA; J. A. APUD; K. F. BERMAN*. *NIMH, NIH, NIMH, NIH, Univ. of Oxford, Brown Univ., The Lieber Inst. for Brain Develop.*

10:00 W33 **320.07** Bipolar disorder: Differences between clinical subtypes and medication effects on subcortical volumes associated with emotional and reward processing. C. CHING*; D. P. HIBAR; N. JAHANSHAD; N. WARSTADT; B. MWANGI; J. SOARES; P. M. THOMPSON. *UCLA, Imaging Genet. Center, Inst. for Neuroimaging & Informatics, USC, Univ. of Texas Med. Sch., Imaging Genet. Center, Inst. for Neuroimaging & Informatics, USC.*

11:00 W34 **320.08** Multimodal neuroimaging approach to assess memory impairment in older adult schizophrenia. S. WIJTENBURG*; S. A. KORENIC; S. J. NISONGER; B. W. KRAUSE; F. E. GASTON; P. KOCHUNOV; D. J. J. WANG; L. E. HONG; L. M. ROWLAND. *Univ. of Maryland Sch. of Med. - MPRC, Univ. of California Los Angeles.*

8:00 W35 **320.09** Modulation of brain network abnormalities with antipsychotic medication in schizophrenia. N. V. KRAGULJAC*. *Univ. of Alabama At Birmingham.*

9:00 W36 **320.10** ▲ Bright light therapy can induce general elevation of visual evoked potential (VEP). E. OTTENS*; D. HOWARTH; G. YEH; D. SIT; T. LEE. *Carnegie Mellon Univ., Carnegie Mellon Univ., Carnegie Mellon Univ., Univ. of Pittsburgh.*

10:00 X1 **320.11** Altered auditory steady-state magnetic fields in bipolar disorders: A source localization study. Y. ODA*; N. HIRONAGA; S. HIRANO; R. TSUCHIOMOTO; T. MAEKAWA; T. ONITSUKA; S. TOBIMATSU; S. KANBA. *Kyushu Univ., Kyushu Univ.*

11:00 X2 **320.12** Altered neural activity during the sound induced flash illusion in schizophrenia. J. BALZ*; Y. ROA ROMERO; J. KEIL; U. POMPER; J. GALLINAT; D. SENKOWSKI. *Charité Universitaetsmedizin Berlin.*

8:00 X3 **320.13** Abnormalities in control-modulated evoked and intrinsic oscillatory synchronization across the schizohprenia-bipolar psychosis spectrum. J. B. KNIGHT*; M. E. HUDGENS-HANEY; L. E. ETHRIDGE; J. A. SWEENEY; B. A. CLEMENTZ. *Univ. of Georgia, Univ. of Texas Southwestern Med. Ctr.*

9:00 X4 **320.14** Hyperdeactivation of the default network in people with schizophrenia under specific task conditions. B. HAHN*; A. N. HARVEY; J. M. GOLD; T. J. ROSS; E. A. STEIN. *Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med., Natl. Inst. on Drug Abuse - Intramural Res. Program.*

10:00 X5 **320.15** Decoupling of N-acetyl-aspartate and glutamate within the dorsolateral prefrontal cortex in schizophrenia. J. M. COUGHLIN*; T. TANAKA; A. MARSMAN; H. WANG; S. BONEKAMP; P. K. KIM; C. HIGGS; S. POSPORELIS; M. VARVARIS; R. A. E. EDDEN; M. G. POMPER; D. SCHRETLEN; N. CASCELLA; P. B. BARKER; A. SAWA. *Johns Hopkins Med. Institutions, Johns Hopkins Med. Institutions.*

11:00 X6 **320.16** Altered neural correlates of executive function in schizophrenia during a set shifting task. K. M. SHAFRITZ*; T. IKUTA; A. GREENE; D. G. ROBINSON; J. GALLEGO; A. K. MALHOTRA; P. R. SZESZKO. *Hofstra Univ., Feinstein Inst. for Med. Res., Univ. of Mississippi, Zucker Hillside Hosp., Hofstra North Shore-LIJ Sch. of Med.*

8:00 X7 **320.17** Is physical exercise associated with increased BDNF mRNA and improved cognition in patients with psychoses? M. AAS*; S. DJUROVIC; K. SUNDET; O. A. ANDREASSEN; I. MELLE. *NORMENT, Inst. of Clin. Med., NORMENT, Inst. of Clin. Medicine, Univ. of Oslo, Dept. of Med. Genetics, Oslo Univ. Hospital, Norway, Dept. of Psychology, Univ. of Oslo, NORMENT, Inst. of Clin. Medicine, Univ. of Oslo, NORMENT, Div. of Mental Hlth. and Addiction, Oslo Univ. Hospital, Oslo, Norway.*

9:00 X8 **320.18** Unconscious and conscious differences in processing empathic stimuli in schizophrenia and their relationship to empathy, mood and symptomatology: An ERP study. C. GONZALEZ-LIENCRES*; E. C. BROWN; C. TAS; A. BREIDENSTEIN; M. BRÜNE. *LWL Univ. Hosp., Univ. of Maryland Sch. of Med., Uskudar Univ., Ruhr-Universität Bochum.*

10:00 X9 **320.19** ● Dot Pattern Expectancy (DPX) task efficiently measures specific cognitive control deficits and prefrontal cortical abnormalities in patients with schizophrenia. A. W. MACDONALD*, III; A. B. POPPE; M. ELLIOTT; D. M. BARCH; C. S. CARTER; J. M. GOLD; J. D. RAGLAND; S. M. SILVERSTEIN. *Univ. Minnesota, Univ. of Minnesota, Washington Univ. in St Louis, Univ. of California at Davis, Univ. of Maryland Sch. of Med., Rutgers.*

11:00 X10 **320.20** Altered face inversion effect in schizophrenic patients treated with typical vs atypical antipsychotics. T. TSUNODA*; H. TODA; S. NOMURA; A. YOSHINO. *National Defense Medical College.*

8:00 X11 **320.21** Clustering based on childhood behavioral and clinical indicators to address heterogeneity in schizophrenia. A. D. SNYDER*; J. HOCHHEISER; D. R. WEINBERGER; K. F. BERMAN; D. DICKINSON. *Virginia Tech. Carilion SOM, Natl. Inst. of Mental Hlth., Johns Hopkins Univ.*

9:00 X12 **320.22** ▲ Cognitive impairment and treatment adherence in euthymic patients with bipolar disorder. I. FUENTES*; A. RIZO; A. JARNE. *Univ. De Guadalajara, OPD Fray Antonio Alcalde Hosp., Univ. de Barcelona.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

321. Mood Disorders: Novel Therapeutic Mechanisms

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 X13 **321.01** ● Mechanisms underlying the antidepressant and anxiolytic effects of vagal nerve stimulation (VNS). A. P. SHAH*; F. R. CARRENO; H. WU; M. DEGUZMAN; Y. CHUNG; A. FRAZER. *Univ. of Texas Hlth. Sci. Ctr. At San Antonio.*

9:00 X14 **321.02** Effect of 1 Hz Repetitive Transcranial Magnetic Stimulation on cognitive flexibility in patients with major depressive disorder and borderline personality disorder. J. V. REYES -LOPEZ*; R. ALCALA-LOZANO; J. A. JASSO-MOLINA; E. REYEZ-ZAMORANO; E. MIRANDA-TERREZ; J. RICARDO-GARCELL; M. GARCIA-ANAYA; J. J. GONZALEZ-OLVERA. *Inst. Nacional de Psiquiatría., Inst. De Neurobiologia UNAM.*

10:00 X15 **321.03** Effect of repetitive transcranial magnetic stimulation (rTMS) on right and left the prefrontal cortex in patients with fibromyalgia and major depressive disorder. J. J. GONZÁLEZ-OLVERA*; R. ALCALÁ LOZANO; J. V. REYES LOPEZ; D. MENDIETA-CABRERA; M. GARCIA-ANAYA. *Instituto Nacional De Psiquiatria.*

11:00 X16 **321.04** Analgesic effect of rTMS at 5Hz and 1 Hz in depressed patients. M. GARCÍA-ANAYA*; J. JASSO; J. REYES; R. ALCALÁ; J. J. GONZÁLEZ-OLVERA. *Natl. Inst. of Psychiatry Ramòn De La Fuent, Natl. Inst. of Psychiatry Ramón De La Fuent, Natl. Inst. of Psychiatry Ramón De La Fuent.*

8:00 X17 **321.05** Regulation of epigenetic machinery following acute and chronic electroconvulsive seizure treatment. M. PUSALKAR; S. GHOSH; M. JAGGAR; V. A. VAIDYA*. *Tata Inst. Fundamental Rese.*

9:00 X18 **321.06** ▲ Hippocampal neurogenesis contributes to the antidepressant effect of electroconvulsive stimulation in a mouse model of stress-induced depression. M. SUKUMAR*; K. MAYNARD; R. J. SCHLOESSER; K. MARTINOWICH. *Lieber Inst. For Brain Develop., Univ. of Maryland, Dept. of Psychiatry, Departments of Psychiatry & Behavioral Sciences, and Neuroscience, Johns Hopkins Univ. Sch. of Med.*

10:00 X19 **321.07** Antidepressant-like actions targeting NMDA receptors in glutamatergic transmission. J. KLINE; K. BATTINA; J. GOODMAN; J. KAPUSCINSKI; R. FIRKINS; A. LOCKRIDGE; V. DURIC; L. YUAN*. *Des Moines Univ., Univ. of Minnesota.*

11:00 X20 **321.08** ● Repeated restraint stress-induced atrophy of pyramidal neurons in the rat basolateral amygdala are inhibited by the antidepressant Agomelatine. L. P. REAGAN*; M. RISHER; C. A. GRILLO; C. GABRIEL; E. MOCAËR; J. R. FADEL. *Univ. South Carolina Sch. Med., Inst. de Recherches Internationales Servier.*

8:00 X21 **321.09** Effects of agmatine on depressive-like behavior induced by intracerebroventricular administration of neurotoxin MPP+. M. MORETTI*; V. B. NEIS; F. C. MATHEUS; M. P. CUNHA; P. B. ROSA; C. M. RIBEIRO; A. L. S. RODRIGUES; R. D. PREDIGER. *Univ. Federal De Santa Catarina.*

9:00 X22 **321.10** Chronic agmatine treatment modulates hippocampal neuroplasticity and cell survival signaling pathways in mice. A. E. FREITAS*; L. E. B. BETTIO; V. B. NEIS; M. MORETTI; C. M. RIBEIRO; M. W. LOPES; R. B. LEAL; A. S. RODRIGUES. *Univ. Federal de Santa Catarina.*

10:00 X23 **321.11** ● Role of HSP90 acetylation in the antidepressant-like effects of HDAC6 selective inhibitors. J. JOCHEMS*; S. L. TEEGARDEN; M. JARPE; J. H. VAN DUZER; S. JONES; R. MAZITSCHEK; S. F. KIM; O. BERTON. *Univ. of Pennsylvania, Acetylon Pharmaceuticals, Massachusetts Gen. Hosp., Univ. of Pennsylvania.*

11:00 X24 **321.12** ● Dynamic interactions between the G protein, Gαs, lipid rafts and adenylyl cyclase are altered by chronic antidepressants, cholesterol removal, cytoskeletal modification and acylation or prenylation. J. SCHAPPI*; A. CZYSZ; M. M. RASENICK. *Univ. of Illinois At Chicago, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago.*

8:00 Y1 **321.13** ● The antidepressant effects of GLYX-13 are mediated by medial prefrontal cortex-associated long term potentiation-like synaptic plasticity. J. S. BURGDORF*; R. A. KROES; X. ZHANG; A. L. GROSS; M. SCHMIDT; J. F. DISTERHOFT; C. WEISS; J. D. LEANDER; R. M. BURCH; P. K. STANTON; P. K. STANTON; J. R. MOSKAL. *Northwestern Univ., Naurex, Inc., New York Med. Col., Northwestern Univ.*

9:00 Y2 **321.14** ● Combinations of atypical antipsychotic drugs and SSRIs facilitate glutamatergic transmission in the medial prefrontal cortex via dopamine D1 receptor activation. C. BJÖRKHOLM*; K. JARDEMARK; Å. KONRADSSON-GEUKEN; B. SCHILSTRÖM; T. H. SVENSSON. *Karolinska Institutet.*

10:00 Y3 **321.15** Serotonin-acetylcholine interactions in tests of antidepressant efficacy in the mouse. Y. S. MINEUR*; E. B. EINSTEIN; M. P. BENTHAM; M. W. WIGENSTRAND; S. BLAKEMAN; M. R. PICCIOTTO. *Yale Univ. Sch. Med.*

11:00 Y4 **321.16** D-473 and D-578 as novel triple dopamine, serotonin and norepinephrine transporters blockers as new generation orally active antidepressants: Characterization in *in vitro* and *in vivo* pharmacological and behavioral assays. A. K. DUTTA*, Dr; S. SANTRA; T. ANTONIO; M. REITH. *Wayne State Univ., New York Univ.*

8:00 Y5 **321.17** Role of neurogenesis in the antidepressant-like actions of VGF-derived neuropeptide TLQP-62 and effect of SNPs on VGF expression levels. S. THAKKER-VARIA*; J. BEHNKE; C. WINDON; J. ALDER. *Rutgers University-Robert Wood Johnson Med. Sch.*

9:00 Y6 **321.18** The neurotensin NTS1 receptor agonist PD149163 exhibits antidepressant-like effects in a forced swim test. L. M. CAREY*, IV; R. J. RICE; E. N. OTTEM; A. J. PRUS. *Northern Michigan Univ., Northern Michigan Univ.*

10:00 Y7 **321.19** Intracranial administration of neurotensin and neurotensin NTS1 receptor agonist PD149163 reduces conditioned footshock-induced 22-kHz vocalizations in rats. F. F. STEELE*, III; J. S. ADAY; L. M. GAGLIANO; S. R. CROWEL; A. J. PRUS. *Northern Michigan Univ.*

11:00 Y8 **321.20** 4-Cl-kynurenine, a pro-drug of a selective glycineB NMDA receptor antagonist, induces rapid and sustained antidepressant effects without ketamine-related side effects. P. ZANOS*; S. C. PIANTADOSI; A. CAN; M. J. DELL; C. A. ZARATE; R. SCHWARCZ; T. D. GOULD. *Univ. of Maryland, Univ. of Pittsburgh, NIMH Intramural Res. Program.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 Y9 **321.21** Carboxypeptidase e (Neurotrophic Factor-α1)is key for preventing depression during chronic stress. Y. CHENG*; R. RODRIGUIZ; S. MURTHY; V. SENATOROV; E. THOUENNON; N. CAWLEY; S. AHN; W. WETSEL; Y. LOH. *NIH/NICHD, Duke Univ. Med. Ctr., NIH/NICHD.*

9:00 Y10 **321.22** Rapid and sustained up-regulation of activin signaling by enriched environment and electroconvulsive seizures (ECS) suggests a role of activin as an endogenous antidepressant. A. S. LINK; S. KURINNA; S. HAVLICEK; S. LEHNERT; T. HUTH; F. ZHENG; B. WINNER; S. WERNER; C. ALZHEIMER*. *Univ. Erlangen-Nuremberg, ETH Zürich.*

10:00 Y11 **321.23** Yueju pill rapidly induces antidepressant-like effects in the chronically stressed animals via inhibition of prefrontal NMDAR expression. G. CHEN*; Z. CHEN; B. XIA; L. REN; H. WU. *Nanjing Univ. of Chinese Med.*

11:00 Y12 **321.24** ● Role of melatonin MT1 receptor in the neurobiology of depression: Genetic and pharmacological evidence. A. R. POSNER*; S. COMAI; A. NASR ESFAHANI; R. OCHOA-SANCHEZ; M. VAN; N. NUÑEZ; G. GOBBI. *McGill Univ.*

8:00 Y13 **321.25** ● The novel anxiolytic compound BNC210 is a negative allosteric modulator of the alpha 7 nicotinic acetylcholine receptor. S. M. O'CONNOR*; A. A. GRISHIN; E. POIRAUD; B. HUYARD; C. COLES; Y. KOLEV; P. KOLESIK; S. WAGNER; E. ANDRIAMBELOSON. *Bionomics Limited, Neurofit SAS.*

9:00 Y14 **321.26** External cooling of the forebrain a remedy for mental discomfort and mental maladies. B. BARRERA-MERA*; B. ELVIRA. *Fac Med, UNAM.*

10:00 Y15 **321.27** Bilateral tCDS reduces vigilance to threat; implications for the treatment of depression and anxiety. M. IRONSIDE*; J. O'SHEA; P. J. COWEN; C. J. HARMER. *Univ. of Oxford.*

11:00 Y16 **321.28** Threshold analysis of intermittent swim stress-induced behavioral despair. N. P. STAFFORD*; N. J. PAGLUICA; K. M. SPENCER; C. A. LOWRY; R. C. DRUGAN. *Univ. of New Hampshire, Univ. of Colorado.*

8:00 Y17 **321.29** Modeling the dynamics of depression across the lifespan. S. DEMIC*; S. CHENG. *Ruhr-University Bochum, Mercator Res. Group "Structure of Memory", Fac. of Psychology, Ruhr Univ. Bochum.*

POSTER

322. Cellular and Molecular Basis for Mood Disorders

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 Y18 **322.01** Contributions of somatostatin deficits and EIF2 signaling to anxiety/depressive-like behaviors. L. LIN*; E. SIBILLE. *Univ. of Pittsburgh.*

9:00 Y19 **322.02** HCN2 plays an important role in depression. X. WENG*; H. FU; S. WANG; K. GAO; D. LI; B. FU; Z. CHEN; Q. YANG; L. ZHAO; X. FU; M. XUE; D. WANG; Y. LI; S. LIU. *Beijing Inst. of Basic Med. Sci., Beijing Inst. of radiation medical sciences, Beijing Inst. of radiation medical sciences, Inst. of Lab. Animal Science, Chinese Acad. of Med. Sci. & Comparative Med. Center, Peking Union Med. Col., Beijing Inst. of Basic Med. Sci.*

10:00 Y20 **322.03** Selective β-arrestine 1 deletion in stem cells of the dentate gyrus alters emotional state and dampens antidepressant effects in adult mice. F. DARCET*; J. BEAULIEU; R. HEN; A. M. GARDIER; J. GUILLOUX; D. J. P. DAVID. *Univ. Paris-Sud, Lab. EA3544, Faculté, Univ. de Laval, Columbia Univ.*

11:00 Y21 **322.04** ● Selective siRNA-mediated suppression of TASK3 channels in monoaminergic neurons: A new antidepressant target. A. FERRÉS-COY; E. RUIZ-BRONCHAL; V. PAZ; M. GALOFRÉ; F. ARTIGAS; A. BORTOLOZZI*. *IIBB-CSIC, IDIBAPS, IDIBAPS ESQ5856414G.*

8:00 Y22 **322.05** A role of RGS4 in chronic stress and antidepressant drug actions in mouse models of depression and neuropathic pain. V. MITSI; S. GHOSE; C. A. TAMINGA; V. ZACHARIOU*. *Mount Sinai Sch. of Med., UT Southwestern Med. Ctr.*

9:00 Y23 **322.06** Cyclin-dependent kinase 5 in the ventral tegmental area regulates depression-related behaviors. P. ZHONG*; X. LIU; Z. ZHANG; Y. HU; S. LIU; M. LEZAMA-RUIZ; M. JOKSIMOVIC; Q. LIU. *Med. Col. of Wisconsin, Med. Col. of Wisconsin.*

10:00 Y24 **322.07** Chronic unpredictable stress induced loss of serotonin cells in the interfascicular region of the dorsal raphe nucleus is associated with mood and cognitive deficits. R. NATARAJAN*; N. CHIAIA; N. NORTHROP; B. YAMAMOTO. *Univ. of Toledo.*

11:00 Y25 **322.08** An Ndusf4 deficient mice model supports the role of mitochondria in depression. T. L. EMMERZAAL*; B. GEENEN; K. SCOTT; B. H. GRAHAM; W. J. CRAIGEN; M. GE; E. MORAVA; R. RODENBURG; T. KOZICZ. *Donders Inst. For Brain, Cognition & Behaviour, Radboud Univ. Med. Ctr., Hayward Genet. Center, Tulane Univ., Dept. of Mol. and Human Genetics, Baylor Col. of Med., Radboud Univ. Med. Centre, Nijmegen Ctr. for Mitochondrial Disorders.*

8:00 Y26 **322.09** Skeletal muscle PGC-1alfa1 modulates local kynurenine metabolism and mediates resilience to stress-induced depressive behavior. L. Z. AGUDELO; T. FEMNIA; F. ORHAN; M. PORSMYR-PALMERTZ; M. GOINY; V. MARTINEZ-REDONDO; J. C. CORREIA; M. IZADI; A. KROOK; J. R. ZIERATH; S. ERHARDT; J. L. RUAS; M. LINDSKOG*. *Karolinska Institutet, Karolinska Inst.*

9:00 Y27 **322.10** Depression-like behavior is mediated by peripheral indoleamine 2,3 dioxygenase and brain neuronal kynurenine 3-monooxygenase downstream of interleukin-1 in a mouse model of neuropathic pain. C. J. HEIJNEN*; W. ZHOU; J. O'CONNOR; Q. MAO-YING; R. DANTZER; A. KAVELAARS. *UT MD Anderson Cancer Ctr., UT MD Anderson Cancer Ctr., UT Hlth. Sci. Ctr.*

POSTER

323. Anxiety and Anxiolytic Mechanisms

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 Y28 **323.01** ● Anxiolytic drug action in the stop signal task: α-asymmetry is not like goal conflict-specific rhythmicity. S. M. SHADLI*; P. GLUE; N. MCNAUGHTON. *Univ. of Otago, Univ. of Otago.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 Y29 **323.02** An insight into neuroprotective effect of GINSENG against sleep deprivation induced anxiety like behaviour and oxidative damage in mice: Possible role of GABA-ergic pathway. P. CHANANA*; A. KUMAR. *Panjab Univ., Panjab University, Chandigarh.*

10:00 Y30 **323.03** The effects of short- and long-term zolpidem treatment on tolerance and GABAA receptor mRNAs profile expression in mice: Comparison with diazepam. B. T. WRIGHT*; S. A. HELDT. *Univ. of Tennessee Hlth. Sci. Ctr.*

11:00 Y31 **323.04** Antidepressant effect of an α5 subunit containing GABAA receptor positive allosteric modulator on stress-induced behavioral emotionality in mice. S. C. PIANTADOSI*; B. FRENCH; J. PARRISH; H. OH; M. POE; J. COOK; E. SIBILLE. *Univ. of Pittsburgh, Ctr. for Neurosci., Univ. of Milwaukee-Wisconsin.*

8:00 Y32 **323.05** GABA and depression: Examining the role of alpha2-containing GABA-A receptors in depression-like behavior and antidepressant action. R. S. BENHAM*; N. B. HEWAGE; E. ENGIN; R. J. DONAHUE; W. A. CARLEZON; U. RUDOLPH. *McLean Hospital/Harvard Med. Sch., McLean Hospital/Harvard Med. Sch.*

9:00 Z1 **323.06** ● Dietary queen bee acid reduces anxiety-like behavior and stress-related weight loss in aged male rats. C. M. BUTT*; M. J. WEISER; K. M. WYNALDA; M. H. MOHAJERI; N. SALEM, Jr. *DSM Nutritional Products.*

10:00 Z2 **323.07** Differential effects of oxazepam and alprazolam: Receptors and behavior. G. F. GUERIN*; C. D. SCHMOUTZ; A. L. SPENCE; N. E. GOEDERS. *LSUHSC-S.*

11:00 Z3 **323.08** ● Drugs that potentiate GABAergic neurotransmission activate TrkB neurotrophin receptor signaling in the adult mouse brain. N. MATSUI*; H. ANTILA; T. RANTAMÄKI; E. CASTRÉN. *Univ. of Helsinki, Tokushima Bunri Univ.*

8:00 Z4 **323.09** Association between adenosine A2A receptor gene (rs2298383) with generalized anxiety disorder in men: A population based study. G. GHISLENI*; M. GAZAL; F. N. KAUKAMNN; C. BASTOS; K. JANSEN; L. D. M. SOUZA; R. SILVA; D. R. LARA; M. P. KASTER. *Univ. Católica De Pelotas, Pontifícia Univ. Católica de Porto Alegre, Univ. Federal de Santa Catarina.*

9:00 Z5 **323.10** Respiratory sensory gating measured by respiratory-related evoked potentials in individuals with generalized anxiety disorder. P. S. CHAN*; Y. JU. *Chang Gung Univ., Chang Gung Univ.*

POSTER

324. Alcohol: Neural Mechanism and Behavior II

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 Z6 **324.01** The effects of conditioned cues on the release of excitatory amino acids in the nucleus accumbens shell of alcohol-preferring (p) rats. G. A. DEEHAN*, JR; S. HAUSER; C. KNIGHT; E. ENGLEMAN; W. MCBRIDE; L. PARSONS; Z. RODD. *Indiana Univ., The Scripps Res. Inst.*

9:00 Z7 **324.02** Time-course of chronic intermittent ethanol exposure on anxiety-like behaviors and glutamatergic neurotransmission in the rat lateral/basolateral amygdala. M. MORALES*; S. L. ROBINSON; B. A. MCCOOL. *Wake Forest Sch. of Med., Wake Forest Sch. of Med.*

10:00 Z8 **324.03** ● Genetic variation at the glucagon-like peptide-1 receptor gene locus is associated with alcohol use disorder. P. SUCHANKOVA KARLSSON*; J. YAN; M. SCHWANDT; B. L. STANGL; E. JERLHAG; J. A. ENGEL; C. A. HODGKINSON; D. GOLDMAN; M. HEILIG; V. A. RAMCHANDANI; L. LEGGIO. *Univ. of Gothenburg, Lab. of Clin. and Translational Studies, NIAAA/NIDA, NIH, LCTS, NIAAA/NIDA, Virginia Inst. for Psychiatric and Behavioral Genetics, Virginia Commonwealth Univ., LCTS, NIAAA/NIDA, NIH, NIAAA, NIH, NIDA, NIH, Ctr. for Alcohol and Addiction Studies.*

11:00 Z9 **324.04** Adolescent males are resilient to alcohol-induced anxiety and glutamate-related protein expression within the nucleus accumbens shell. K. M. LEE*; H. A. MCGREGOR; M. G. WROTEN; D. MARTIN; M. COHEN; K. K. SZUMLINSKI. *Univ. of California At Santa Barbara.*

8:00 Z10 **324.05** Acute alcohol exposure enhances excitatory synaptic transmission selectively on dopamine D1 receptor-containing neurons in the nucleus accumbens. J. T. BECKLEY*; D. RON. *Univ. of California - San Francisco.*

9:00 Z11 **324.06** Proteomic analysis of the PFC reveals adolescent vulnerability to binge alcohol drinking in mice. A. E. AGOGLIA*; C. W. HODGE. *Univ. of North Carolina, Chapel Hill.*

10:00 Z12 **324.07** Genomic and pharmacological evidence for a role of kv7 channels in alcohol drinking behaviors. N. M. STRAIGHT MCGUIER*; W. C. GRIFFIN, III; A. E. PADULA; E. J. CHESLER; P. J. MULHOLLAND. *Med. Univ. of South Carolina, Med. Univ. of South Carolina, The Jackson Lab.*

11:00 Z13 **324.08** Chronic intermittent ethanol exposure and drinking: Effects on 3α,5α-THP levels in limbic brain structures following withdrawal in C57BL/6J mice. A. M. MALDONADO-DEVINCCI*; M. F. LOPEZ; H. C. BECKER; A. L. MORROW. *Univ. North Carolina at Chapel Hill, Univ. North Carolina at Chapel Hill, Med. Univ. of South Carolina, Med. Univ. of South Carolina, Med. Univ. of South Carolina, Univ. North Carolina at Chapel Hill.*

8:00 Z14 **324.09** Phasic dopamine activity in the dorsal striatum during variable interval responding to alcohol and sucrose. T. SHNITKO*; D. L. ROBINSON. *Univ. of North Carolina At Chapel Hill.*

9:00 Z15 **324.10** Involvement of lateral septum in the dopamine-elevating effects of alcohol. S. JONSSON*; J. MORUD; M. ERICSON; B. SÖDERPALM. *Neurosci & Physiol.*

10:00 Z16 **324.11** Brain metabolite levels as predictors of abstinence or relapse in alcohol use disorders. N. M. ZAHR*; M. SARANATHAN; R. CARR; A. M. COLLINS; T. ROHLFING; D. MAYER; E. V. SULLIVAN; I. M. COLRAIN; A. PFEFFERBAUM. *Stanford Univ. Sch. of Med., SRI Intl.*

11:00 Z17 **324.12** Lateral hypothalamus is critical for context-induced relapse to alcohol seeking after punishment-imposed abstinence. N. J. MARCHANT*; R. RABEI; K. KAGANOVSKY; D. CAPRIOLI; J. M. BOSSERT; A. BONCI; Y. SHAHAM. *Natl. Inst. On Drug Abuse.*

8:00 Z18 **324.13** Subdivision and sex differences in alcohol modulation of basolateral-evoked glutamatergic responses in the central nucleus of the amygdala. M. L. LOGRIP*; C. OLEATA; M. ROBERTO. *The Scripps Res. Inst.*

9:00 Z19 **324.14** Functional brain response to alcohol in HIV+ and social drinkers. A. Z. NITENSON*; T. SOUZA; T. L. WHITE. *Brown Univ., Brown Univ., Brown Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 Z20 **324.15** Rapid tolerance to ethanol-associated conditioned taste aversion under social circumstances: Impact of age and sex. E. M. TRUXELL*; E. I. VARLINSKAYA; L. P. SPEAR. *Binghamton Univ.*

11:00 Z21 **324.16** Interhemispheric functional connectivity change is linked to callosal fiber integrity change over a 1-year follow-up in chronic alcoholics. E. M. MULLER-OEHRING*; A. PFEFFERBAUM; E. V. SULLIVAN; T. SCHULTE. *Stanford Univ. Sch. of Med., SRI Intl.*

8:00 Z22 **324.17** Control of ethanol drinking by subregions of the thalamic paraventricular nucleus: Role of substance P as a possible mediator of orexin effects. J. R. BARSON*; K. POON; H. HO; L. SANZALONE; S. F. LEIBOWITZ. *The Rockefeller Univ.*

9:00 Z23 **324.18** ● Decreased gray matter volume in inferior frontal gyrus is related to stop-signal task performance in alcohol-dependent patients. C. E. WIERS*; C. GAWRON; S. GRÖPPER; S. SPENGLER; H. STUKE; J. LINDENMEYER; H. WALTER; T. WÜSTENBERG; F. BERMPOHL. *Berlin Sch. of Mind and Brain, Humboldt-Universität zu Berlin, Klinik für Psychiatrie und Psychotherapie Charité-Universitätsmedizin Berlin, Salus Klinik.*

10:00 Z24 **324.19** Genetic variation in 3α,5α-THP levels influences sensitivity to the behavioral effects of ethanol in BxD recombinant inbred mice. M. BEATTIE*; P. PORCU; S. L. CARLSON; T. K. O'BUCKLEY; C. W. HODGE; A. L. MORROW. *UNC-Chapel Hill, Natl. Res. Council (CNR) Neurosci. Inst.*

11:00 Z25 **324.20** Chronic ethanol consumption changes expression of cyclin-dependent kinase 5 in mouse brain. K. MIZUO*; S. OKAZAKI; S. WATANABE; H. INOUE. *Sapporo Med. Univ.*

8:00 Z26 **324.21** Amygdala dopamine d1 and corticotropin releasing hormone receptor 1 interactions in alcohol dependence. L. BROCCOLI*; R. E. BERNARDI; N. HIRTH; R. SPANAGEL; W. H. SOMMER; J. M. DEUSSING; A. C. HANSSON. *Central Inst. of Mental Hlth., Max Planck Inst. of Psychiatry.*

9:00 Z27 **324.22** Naltrexone shifts nucleus accumbens encoding of ethanol versus water operant self-administration. S. J. STRINGFIELD*; R. R. FANELLI; W. P. WILLIAMS; R. M. CARELLI; D. L. ROBINSON. *Univ. of North Carolina, Univ. of Pittsburgh, Univ. of North Carolina, Univ. of North Carolina, Univ. of North Carolina.*

10:00 Z28 **324.23** ▲ Thiamine deficiency exacerbates alcohol-related brain damage and behavioral deficits. K. R. JABROUIN; J. M. HALL; L. M. SAVAGE*, Ph.D. *State Univ. of New York Binghamton.*

11:00 Z29 **324.24** Presentation of an excitatory conditioned cues results in activation of a select population of dopamine neurons within the posterior ventral tegmental area. S. R. HAUSER*; W. A. TRUITT; G. A. DEEHAN; C. P. KNIGHT; P. L. JOHNSON; W. J. MCBRIDE; Z. A. RODD. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*

8:00 Z30 **324.25** C57BL/6 mice demonstrate anxiety-like behavior and decreased dopamine system signaling after chronic intermittent ethanol exposure. J. H. ROSE; D. GIOIA; B. A. MCCOOL; S. R. JONES*. *Wake Forest Univ. Sch. Med.*

9:00 Z31 **324.26** Unc13 is a presynaptic ethanol binding protein and a regulator of ethanol sedation sensitivity. G. W. ROMAN*; S. XU; J. DAS; J. WOODEN; L. LEASURE. *Univ. Houston, Biol. of Behavior Inst., Univ. of Houston, Univ. Houston, Univ. Houston, Univ. Houston.*

10:00 Z32 **324.27** Expression of orexigenic peptides ghrelin and orexin is increased in mouse models of binge ethanol exposure and self-administration. C. J. LONERGAN*; F. T. CREWS. *UNC Chapel Hill.*

11:00 Z33 **324.28** Selective modulation of the rat basolateral amydgala endocannabinoid system by chronic ethanol exposure. S. L. ROBINSON*; B. A. MCCOOL. *Wake Forest Univ. Med. Ctr., Wake Forest Univ. Med. Ctr.*

8:00 Z34 **324.29** Modeling Alcohol Use Disorder pathophysiology using human neurons. A. HALIKERE*; L. DE FILIPPIS; E. ONI; J. C. MOORE; J. TISCHFIELD; R. P. HART; Z. PANG. *Rutgers Univ., Rutgers University, Child Hlth. Inst. of New Jersey, Rutgers Univ., Rutgers Univ. Cell and DNA Repository.*

9:00 Z35 **324.30** Infralimbic cortex mediates Pavlovian to instrumental transfer and ethanol seeking via connections with accumbens shell and basolateral amygdala. C. KEISTLER*; J. BARKER; J. R. TAYLOR. *Yale Univ., Med. Univ. of South Carolina, Yale Univ.*

POSTER

325. Cocaine: Cellular and Synaptic Studies

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 Z36 **325.01** The role of AKAP150 in the nucleus accumbens shell in the reinstatement of cocaine seeking. L. A. GUERCIO*; H. D. SCHMIDT; R. C. PIERCE. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

9:00 AA1 **325.02** Longitudinal changes in resting state functional connectivity by cocaine in rhesus monkeys. X. SONG; H. P. JEDEMA; H. LU; S. KIM; P. WANG; Y. YANG; C. W. BRADBERRY*; E. A. STEIN. *NIDA Intramural Res. Program, Univ. of Pittsburgh, Univ. of Pittsburgh, Inst. for Basic Science, SKKU, VA Pittsburgh Hlth. Services.*

10:00 AA2 **325.03** Perineuronal net expression in the medial prefrontal cortex following long-access cocaine self-administration. J. M. BLACKTOP*; R. P. TODD; M. SLAKER; B. A. SORG. *Washington State Univ. Vancouver.*

11:00 AA3 **325.04** Life-long adaptive changes following repeated exposure to cocaine during adolescence: Focus on cortical neuroplastic mechanisms. G. GIANNOTTI; L. CAFFINO; C. MALPIGHI; G. RACAGNI; R. MOLTENI*; F. FUMAGALLI. *Univ. of Milan, Collaborative Ctr. of Dept. of Antidrug Policies, Presidency of the Council of Ministers.*

8:00 AA4 **325.05** Glucocorticoids modulate hippocampal glutamate tone underlying individual differences in cocaine sensitivity. A. S. LEE*; A. M. RAJADHYAKSHA; D. ZELLI; B. S. MCEWEN; C. NASCA. *Weill Cornell, The Rockefeller Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 AA5 **325.06** Pharmaco dynamics of cocaine induced formation of cortico striatal synapses. M. DOS SANTOS*; M. SALERY; B. AMAIRI; A. BESNARD; E. HERZOG; T. BOUDIER; P. VANHOUTTE; J. CABOCHE*; N. HECK. *Univ. Pierre Et Marie Curie, INSERM, UMR-S 1130, Neurosci. Paris Seine, CNRS, UMR 8246,Neuroscience Paris Seine, Sorbonne Universités, UPMC Univ. Paris 06, UMR-S 8246, Neurosci. Paris Seine, Ctr. for Regenerative Medicine, Massachusetts Gen. Hosp., Univ. Bordeaux, Inst. Interdisciplinaire de Neurosciences, UMR 5297.*

10:00 AA6 **325.07** Systemic morphine or cocaine results in presynaptic aggregation of alpha-synuclein in the mouse ventral tegmental area (VTA). M. LYNCH; J. CHAN; V. M. PICKEL; D. A. LANE*. *Weill Cornell Med. Col.*

11:00 AA7 **325.08** Dysregulation in NMDA receptors subunits following cocaine self-administration, extinction training and cocaine-induced relapse in rat brain structures. L. POMIERNY-CHAMIOLO*; J. MISZKIEL; E. NIEDZIELSKA; M. FILIP. *Jagiellonian Univ. Med. Col., Inst. of Pharmacol. Polish Acad. of Sci.*

8:00 AA8 **325.09** Cocaine stimulating the release of the ER chaperone sigma-1 receptor into the extracellular vesicles as an emerging role in cocaine-induced neuroplasticity. Y. NAKAMURA*; S. TSAI; T. SU. *NIDA IRP.*

9:00 AA9 **325.10** Knockdown of cartilage link protein-1 within the medial prefrontal cortex disrupts perineuronal nets. M. SLAKER*; E. FICCO; B. A. SORG. *Washington State Univ.*

10:00 AA10 **325.11** Cadherin adhesion complexes and cocaine-mediated synaptic plasticity. A. K. GLOBA*; F. MILLS; C. M. COWAN; S. LIU; S. L. BORGLAND; A. G. PHILLIPS; S. X. BAMJI. *Univ. of British Columbia, Univ. of Calgary, Univ. of British Columbia.*

11:00 AA11 **325.12** Cocaine photo-affinity analogs bind in the S1 binding pocket of the dopamine transporter providing a mechanism for competitive inhibition of dopamine uptake. D. KROUT*; R. ACHARYA DAHAL; P. AKULA BALA; B. SHARMA; J. D. FOSTER; J. HWAN CHA; J. CAO; A. HAUCK NEWMAN; J. R. LEVER; R. A. VAUGHAN; L. K. HENRY. *Univ. of North Dakota, Natl. Inst. on Drug Abuse, Univ. of Missouri.*

8:00 AA12 **325.13** Sumoylation and localization of sigma-1 receptor chaperones at the nuclear pore complex suggest a role of sigma-1 receptors in the control of macromolecular trafficking across nuclear membrane. P. LEE*; T. SU. *IRP/NIDA/NIH.*

9:00 AA13 **325.14** Activity-regulated cytoskeleton-associated protein (Arc) regulates multiple behaviors induced by repeated cocaine. J. KUMAR*; L. N. SMITH; J. P. JEDYNAK; C. W. COWAN. *Harvard Med. School, McLean Hosp., UT Southwestern Med. Ctr.*

10:00 AA14 **325.15** Mechanisms of cue-induced reinstatement: Receptor-Scaffold interactions. V. KUMARESAN*; M. PELLEGRINI; D. H. FARB; D. F. MIERKE. *Boston Univ. Sch. of Med., Dartmouth Col.*

11:00 AA15 **325.16** Cocaine-induced Arc expression in striatal neurons: Implications for molecular and behavioral adaptations. M. SALERY*; M. DOS SANTOS; L. MOUMNÉ; C. PAGÈS; V. KAPPÈS; N. HECK; J. CABOCHE*; P. VANHOUTTE. *Univ. Pierre et Marie Curie, Inst. de Neurosciences Paris Seine, Inserm-U1130/CNRS-U8246.*

POSTER

326. Cocaine: Neural Mechanisms II

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 AA16 **326.01** Regulation of miR-495 and addiction-related target mRNAs following exposure to cocaine. R. J. OLIVER*, JR; A. S. GARDINER; R. M. BASTLE; J. L. NEISEWANDER; N. I. PERRONE-BIZZOZERO. *Univ. of New Mexico, Arizon State Univ.*

9:00 AA17 **326.02** Overexpression of miR-495 in the nucleus accumbens shell decreases cocaine, but not food, intake and seeking behavior. R. M. BASTLE*; N. S. PENTKOWSKI; C. D. SMITH; T. CHAUDHURY; K. R. LESLIE; R. J. OLIVER; A. S. GARDINER; N. I. PERRONE-BIZZOZERO; J. L. NEISEWANDER. *Arizona State Univ., Univ. of New Mexico.*

10:00 AA18 **326.03** Nogo receptor 1 regulates long term structural synaptic alterations in response to cocaine. T. E. KARLSSON*; G. SMEDFORS; A. JOSEPHSON; K. WELLFELT; L. OLSON. *Karolinska Institutet.*

11:00 AA19 **326.04** Role of Nogo receptor 1 in locomotor sensitization to cocaine. G. SMEDFORS*; A. JOSEPHSON; L. OLSON; T. KARLSSON. *Karolinska Institutet.*

8:00 AA20 **326.05** Impaired cognition and increased relapse vulnerability in a system xc- knockout rat. S. CHOI; A. GUERTS; J. RESCH; N. J. RADDATZ; C. R. MUELLER; L. KONG; J. CLELAND; J. MANTSCH; D. A. BAKER*. *Marquette Univ., Med. Col. of Wisconsin.*

9:00 AA21 **326.06** Relevance of neuron-astrocyte interactions to cocaine seeking in rats: Corticostriatal regulation of glutamate homeostasis in the nucleus accumbens by pacap. L. KONG*; A. MADAYAG; J. RESCH; S. CHOI; J. MANTSCH; D. BAKER. *Marquette Univ., Univ. of North Carolina at Chapel Hill.*

10:00 AA22 **326.07** Design and characterization of a novel system xc- substrate. N. RADDATZ*; M. NEARY; J. HJELMHAUG; M. EDWARDS; C. R. MUELLER; X. XIE; J. M. COOK; R. A. FUCHS; J. R. MANTSCH; D. LOBNER; D. BAKER. *Marquette Univ., Promentis Pharmaceuticals, Univ. of Wisconsin - Milwaukee, North Carolina State Univ., Washington State Univ.*

11:00 AA23 **326.08** Increased phosphorylation of mecp2 as a mechanism of trans-generational inheritance of a cocaine-resistance phenotype. M. N. HUIZENGA; F. M. VASSOLER; V. L. BATALHA; K. A. MUELLER; H. D. SCHMIDT; R. C. PIERCE; G. SADRI-VAKILI*. *Massachusetts Gen Hosp, Tufts Sch. of Vet. Med., Massachusetts Gen Hosp, Univ. of Pennsylvania.*

8:00 AA24 **326.09** Chronic cocaine regulated repetitive element mobilization drives transcriptome mosaics in mouse nucleus accumbens. J. FENG*; T. WANG; J. SANTOS; M. CAHILL; L. SHEN; D. FARGO; E. J. NESTLER; R. P. WOYCHIK. *Icahn Sch. of Med. at Mount Sinai, NIEHS.*

9:00 BB1 **326.10** Role of projections from ventral medial prefrontal cortex to nucleus accumbens shell in context-induced reinstatement of cocaine seeking. K. R. BABIN*; R. M. LEAO; F. C. CRUZ; J. M. BOSSERT; Y. SHAHAM; B. T. HOPE. *Natl. Inst. On Drug Abuse, Natl. Inst. on Drug Abuse.*

10:00 BB2 **326.11** Rapid increase in nucleus accumbens extracellular glucose induced by intravenous cocaine: Peripheral neural contributions and experience-dependent tolerance. K. T. WAKABAYASHI*; E. A. KIYATKIN. *NIH/NIDA.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 BB3 **326.12** Regulation and role of E2Fs in cocaine-elicited behavior. H. M. CATES*; E. HELLER; D. M. WALKER; E. RIBEIRO; R. C. BAGOT; C. J. PEÑA; E. J. NESTLER. *Icahn Sch. of Med. At Mt. Sinai, Icahn Sch. of Med. at Mt. Sinai, Icahn Sch. of Med. at Mt. Sinai, Icahn Sch. of Med. At Mt. Sinai.*

8:00 BB4 **326.13** Cocaine self-administration increases ERK phosphorylation in the limbic circuit of HIV-1 transgenic rats. L. CHEN*; A. L. PERSONS; W. N. WAYMAN; X. HU; T. C. NAPIER. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.*

9:00 BB5 **326.14** ▲ Phosphorylation of mGluR5 by JNK1 regulates cocaine-induced locomotor activity. S. SEO; J. OH; E. CHOE*. *Pusan Natl. Univ.*

10:00 BB6 **326.15** Analysis of HDAC5 target genes that mediate its role in regulating cocaine reward behavior. M. TANIGUCHI*; M. B. CARREIRA; J. KUMAR; L. N. SMITH; N. KOIKE; T. KIM; J. S. TAKAHASHI; Y. LIN; C. W. COWAN. *Harvard Med. School, McLean Hosp., Univ. of Texas Southwestern Med. Ctr., Univ. of Texas Southwestern Med. Ctr., Univ. of Texas Southwestern Med. Ctr., HHMI, MIT.*

11:00 BB7 **326.16** DNA methylation in the striatum of individuals with cocaine dependence. K. VAILLANCOURT*; G. G. CHEN; A. DIALLO; R. POUJOL; C. ERNST; D. C. MASH; G. TURECKI. *Douglas Mental Hlth. Univ. Inst., McGill Univ., Douglas Mental Hlth. Univ. Inst., McGill Univ., Univ. of Miami Miller Sch. of Med.*

8:00 BB8 **326.17** Short-term withdrawal from repeated exposure to cocaine during adolescence alters the response to swim stress: Focus on the putative molecular mechanisms. L. CAFFINO; G. GIANNOTTI; C. MALPIGHI; G. RACAGNI; F. FUMAGALLI*. *Univ. of Milan, Ctr. of Neuropharm. and Collaborative Ctr. of Dep. Antidrug Policies,.*

9:00 BB9 **326.18** Formation of cocaine-CPP memory in the amygdala and PFC: A biophysical modeling study. Y. CHEN*; P. W. KALIVAS; S. S. NAIR. *Univ. of Missouri - Columbia, Med. Univ. of South Carolina.*

10:00 BB10 **326.19** A key role for astrocytic lactate in formation and maintenance of cocaine seeking behavior. B. BOURY JAMOT*; A. CARRARD; O. HALFON; J. MARTIN; P. J. MAGISTRETTI; B. BOUTREL. *Ctr. For Psychiatric Neurosci., Lausanne Inst. of Technol., Div. of Child and Adolescent Psychiatry.*

POSTER

327. Opiate Addiction

Theme C: Disorders of the Nervous System

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 BB11 **327.01** Dopamine D4 receptor counteracts morphine-induced changes in μ opioid receptor signaling in the striosomes of the rat caudate putamen. B. GAGO; D. SUAREZ-BOOMGAARD; A. VALDERRAMA; R. ROALES-BUJÁN; K. VAN CRAENENBROECK; J. DUCHOU; D. O. BORROTO-ESCUELA; J. MEDINA-LUQUE; M. C. RODRIGUEZ-OROZ*; A. DE LA CALLE; K. FUXE; A. RIVERA. *Inst. Biodonostia, CIBERNED, Univ. of Malaga, Ghent Univ., Karolinska Inst., Ikerbasque Fndn., Biodonostia Hosp.*

9:00 BB12 **327.02** Conditioned place preference reverses morphine induced changes in dendritic complexity and spine density. K. L. KOBRIN; O. MOODY; D. T. ARENA; C. F. MOORE; S. C. HEINRICHS; G. B. KAPLAN*. *Boston Univ. Sch. Med/VA Boston Healthcare, VA Boston Healthcare Syst., Boston Univ.*

10:00 BB13 **327.03** Intravenous injection of a modified CaMKII inhibitor blocks relapse to morphine-seeking behavior and influences synaptic plasticity in the nucleus accumbens shell of rats. Z. LIU*; L. YU; X. LIU; J. ZHANG. *Sch. of Life Sciences, Peking Univ., Peking Univ., Univ. of Pittsburgh, The Inst. of Psychology of the Chinese Acad. of Sci.*

11:00 BB14 **327.04** Blockade of connexin-36-expressing gap junctions in the ventral tegmental area reverts opiate dependent animals to an opiate-naïve state. G. MAAL-BARED*; M. PATEL; M. CHWALEK; D. VAN DER KOOY. *Univ. of Toronto.*

8:00 BB15 **327.05** ● NPFF receptor subtype-specific drug reverses morphine tolerance. D. H. MALIN*; M. M. HENCEROTH-CHOMIAK; J. J. IZYGON; D. M. NGHIEM; W. D. MOON; A. P. NEGRETE; B. J. BENOIT; J. MA; E. S. BURSTEIN. *Univ. Houston-Clear Lake Mail Code 265, Acadia Pharmaceuticals.*

9:00 BB16 **327.06** RNA-seq assessment of individual differences in gene expression of the rat hippocampus and mPFC following extended access to heroin self-administration. C. G. IMPERIO*; D. R. MASSER; E. M. COLECHIO; P. S. GRIGSON; W. M. FREEMAN. *Penn State Col. of Med., Univ. of Oklahoma Hlth. Sci. Ctr.*

10:00 BB17 **327.07** Role of mTORC2 in the ventral tegmental area in stress and opiate behaviors. S. KASKA*; M. KECHNER; M. S. MAZEI-ROBISON. *Michigan State Univ., Michigan State Univ., Michigan State Univ.*

11:00 BB18 **327.08** Development of morphine analgesic tolerance is modulated by spinal P2X7 receptors. H. L. LEDUC-PESSAH*; N. WEILINGER; C. FAN; R. THOMPSON; T. TRANG. *Univ. of Calgary, Hotchkiss Brain Inst., Univ. of Calgary, Hotchkiss Brain Inst.*

8:00 BB19 **327.09** ▲ Physical and psychological stress increase voluntary morphine consumption. M. KECHNER; S. KASKA; S. COOPER; M. S. MAZEI*. *Michigan State Univ.*

9:00 BB20 **327.10** Attenuation of morphine withdrawal by P2X7 receptor antagonists. N. E. BURMA*; T. TRANG. *Univ. of Calgary, Hotchkiss Brain Inst.*

10:00 BB21 **327.11** Early treatment with methylphenidate differentially modulates morphine-induced antinociception in neonatal 6-OHDA lesioned female and female rats. G. J. KAPLAN*; J. M. VALENTINE; J. A. CELMER; S. CORTEZ; C. A. CRAWFORD. *CSUSB, California State University, San Bernardino.*

11:00 BB22 **327.12** Acute fentanyl-induced increase in cortical serotonin, but not striatal dopamine, turnover absent in mice lacking adenylyl cyclase isoforms AC1 and AC8. M. P. GALLOWAY*; C. D. HATTAWAY; F. GHODDOUSSI; A. C. CONTI. *Wayne State Univ. Sch. Med., Wayne State Univ. Sch. Med.*

8:00 BB23 **327.13** Ventral tegmental area mu opioid receptor modulation of phasic dopamine release in the ventral striatum. L. QI*; K. BLANTON; C. LEE; L. SOMBERS. *North Carolina State Univ., North Carolina State Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 BB24 **327.14** The role of SK2 and NR2B in CA1 pyramidal spine morphology following morphine conditioned place preference. A. FAKIRA; G. PORTUGAL; R. AL-HASANI; S. GOLDEN; S. RUSSO; M. BRUCHAS; D. SULZER; J. MORON-CONCEPCION*. *Columbia Univ. Med. Ctr., Washington Univ., Icahn Sch. of Med. at Mount Sinai, Columbia Univ. Med. Ctr.*

10:00 BB25 **327.15** A role for casein kinase 1-epsilon in the motivational properties of fentanyl. L. R. GOLDBERG*; S. KIRKPATRICK; C. BRYANT. *Boston Univ. Sch. of Med.*

11:00 BB26 **327.16** MAOA rs1137070 variant associated with the brain abnormality in heroin addicts. Y. SUN*; J. SHI; L. LIU; W. YUE; J. FENG; L. LU; Y. FAN. *Peking Univ., Brainnetome Center, Inst. of Automation, Chinese Acad. of Sciences,, Inst. of Mental Health, Peking University,.*

8:00 BB27 **327.17** The BDNF Val66Met polymorphism and plasma brain-derived neurotrophic factor levels in Han Chinese subjects with heroin use. S. CHEN*; Y. CHANG; T. WANG; R. LU. *Kaohsiung Med. Univ., Natl. Cheng Kung Univ.*

9:00 BB28 **327.18** Morphine induced Condition Place Preference activates CamKII and β-actin in striatum and hippocampus in mice. F. BOIX*; J. M. ANDERSEN. *Norwegian Inst. of Publ Hlth.*

10:00 BB29 **327.19** Acute antinociceptive tolerance to hyperbaric oxygen (HBO2) in opioid-pretreated mice. Y. ZHANG; J. T. NELSON; D. Y. SHIRACHI; R. M. QUOCK*. *Washington State Univ., Washington State Univ., Univ. of the Pacific.*

11:00 BB30 **327.20** Morphine modulates adult neurogenesis and contextual memory by impeding neural progenitors differentiate into immature neurons. Y. ZHANG; H. ZHENG; P. LAW*. *Univ. of Minnesota, Guangzhou Inst. of Biomedicine and Hlth.*

8:00 BB31 **327.21** Early-life experience decreases opioid self-administration in adulthood and alters neuroimmune signaling in the nucleus accumbens. M. J. LACAGNINA*; S. S. COX; C. J. BELLIVEAU; G. M. HOUTZ; C. WELLS; S. SLADE; E. D. LEVIN; S. D. BILBO. *Duke Univ., Duke Univ. Med. Ctr.*

9:00 BB32 **327.22** ● Social housing conditions influence the analgesic properties of opioids in adolescent mice. M. BATES*; M. A. EMERY; P. J. WELLMAN; S. EITAN. *Texas A&M Univ.*

10:00 BB33 **327.23** Alterations of cytoskeletal proteins during morphine abstinence as molecular markers for addiction. S. DAS; A. PAL; S. C. BISWAS*. *CSIR-Indian Inst. of Chem. Biol.*

11:00 CC1 **327.24** The acute effect of heroin in brain is a consequence of its conversion to 6-monoacetylmorphine in blood. F. BOIX; J. ANDERSEN; I. BOGEN; A. GOTTAS; J. MORLAND*. *Norwegian Inst. Publ. Hlth.*

POSTER

328. Auditory System: Cortical Processing in Animals and Humans

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 CC2 **328.01** Parvalbumin interneurons regulate feedforward activity in auditory cortex. A. K. HARTMAN*; M. S. WEHR. *Univ. of Oregon.*

9:00 CC3 **328.02** Functional characterisation of thalamic input to the mouse auditory cortex. Y. WEISSENBERGER; S. A. VASQUEZ-LOPEZ; P. KEATING; A. J. KING; J. C. DAHMEN*. *Oxford Univ.*

10:00 CC4 **328.03** Optogenetic stimulation of the auditory cortex enhances midbrain temporal processing. C. VILA*; K. N. DARROW; W. GUO; B. G. SHINN-CUNNINGHAM; D. J. LEE; D. B. POLLEY. *EPL, Massachusetts Eye and Ear Infirmary, École polytechnique fédérale de Lausanne, Worcester State Univ., Boston Univ., Boston Univ., Harvard Med. Sch.*

11:00 CC5 **328.04** Co-modulation as a means of enhancing signal detection and object formation in mouse primary auditory cortex. J. SOLLINI; A. M. S. MORRIS; P. T. CHADDERTON*. *Imperial Col. London.*

8:00 CC6 **328.05** Dynamics of amplitude modulation sensitivity and tuning in macaque primary auditory cortical neurons. K. N. O'CONNOR*; J. R. VERHEIN; M. NIWA; M. L. SUTTER. *UC Davis, Stanford Sch. of Med.*

9:00 CC7 **328.06** Comparing cortical pitch responses in humans and monkeys. B. R. CONWAY*; S. NORMAN-HAIGNERE; K. S. BOHON; G. GAGIN; J. H. MCDERMOTT; N. G. KANWISHER. *Wellesley Col., Harvard Med. Sch., MIT.*

10:00 CC8 **328.07** Neural coding of pitch in human auditory cortex: Evidence from intracranial ecog recordings. R. BEHROOZMAND; J. D. GREENLEE*, M.D.; H. OYA; H. KAWASAKI; M. HOWARD. *Univ. of Iowa, Univ. Iowa.*

11:00 CC9 **328.08** Auditory processing of the cortex and subcortex in humans as revealed with functional magnetic resonance imaging. L. MCKETTON*; K. DESIMONE; K. SCHNEIDER. *York Univ.*

8:00 CC10 **328.09** Functional organization of human auditory cortex: Investigation of response latencies through direct recordings. K. V. NOURSKI*; M. STEINSCHNEIDER; B. MCMURRAY; C. K. KOVACH; H. OYA; H. KAWASAKI; M. A. HOWARD, III. *The Univ. of Iowa, Albert Einstein Col. of Med., The Univ. of Iowa.*

9:00 CC11 **328.10** Direct electrical recordings of neural activity related to auditory figure-ground segregation in the human auditory cortex. S. KUMAR*; P. GANDER; K. NOURSKI; H. OYA; H. KAWASAKI; M. HOWARD; T. GRIFFITHS. *Newcastle Univ., The Univ. of Iowa.*

10:00 CC12 **328.11** Auditory field maps beyond human primary auditory cortex. B. BARTON*; J. VENEZIA; K. SABERI; G. HICKOK; A. A. BREWER. *Univ. of California, Irvine.*

POSTER

329. Auditory Subcortical and Neuromodulatory Processes

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 CC13 **329.01** Fine structure of catecholaminergic innervation of the peripheral auditory system of a vocal teleost. J. PERELMUTER*; P. M. FORLANO. *CUNY Grad. Ctr., Brooklyn Col., CUNY Grad. Ctr.*

9:00 CC14 **329.02** Noise exposure and auditory nerve degeneration in the rat: Role of microglia. J. S. BAIZER*; K. WONG; S. MANOHAR; R. K. DINGMAN; R. J. SALVI. *Univ. at Buffalo, Univ. at Buffalo.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 CC15 **329.03** Serotonergic regulation of fusiform neurons of the dorsal cochlear nucleus. Z. TANG*; L. TRUSSELL. *Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*

11:00 CC16 **329.04** Corticofugal modulation of the dorsal cochlear nucleus in mice. L. KONG*; C. XIONG; L. LI; J. YAN. *Univ. of Calgary, Peking Univ.*

8:00 CC17 **329.05** Complex effects of NMDA receptor blockade on stimulus timing dependent learning rules in the dorsal cochlear nucleus. R. A. STEFANESCU*; D. T. MARTEL; J. A. WILER; S. BLEDSOE; S. E. SHORE. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Kresge Hearing Res. Inst.*

9:00 CC18 **329.06** Salicylate enhances depolarization suppression of excitation in cartwheel neurons from the dorsal cochlear nucleus of rat. J. ZUGAIB; R. M. LEAO*. *Univ. of Sao Paulo, Univerisity of São Paulo.*

10:00 CC19 **329.07** Neurons specialized for rapid temporal processing in the low frequency region of the gerbil inferior colliculus. M. T. ROBERTS*; L. J. KREEGER; N. L. GOLDING. *The Univ. of Texas At Austin.*

11:00 CC20 **329.08** Auditory-evoked unit responses of large GABAergic neurons in the inferior colliculus. T. ITO*. *Univ. of Fukui.*

8:00 CC21 **329.09** Differential distribution of GABAergic and excitatory synapses on cells in the inferior colliculus. K. T. NAKAMOTO*; J. G. MELLOTT; J. KILLIUS; M. E. STOREY-WORKLEY; C. S. SOWICK; B. R. SCHOFIELD. *Northeast Ohio Med. Univ.*

9:00 CC22 **329.10** Role of the noradrenergic projection from the locus coeruleus on the acoustic startle response and its prepulse inhibition. S. HORMIGO*; R. GOMEZ-NIETO; J. HERRERO-TURRION; O. CASTELLANO; C. SANCHO; J. CARRO; N. ORSI BARIONI; J. DE CASTRO E HORTA, Junior; D. E. LOPEZ. *Drexel Univ. Col. of Med., Univ. of Salamanca, Univ. of Salamanca, Univ. of Salamanca, Univ. of Salamanca, Univ. Estadual Paulista "Julio de Mesquita Filho" -UNESP-.*

10:00 CC23 **329.11** Peptidergic afferents to elementary circuitry of acoustic startle reflex. A. V. DA SILVA*; K. R. TORRES DA SILVA; N. O. BARIONI; C. D. MACHADO; R. S. BEDUSCHI; M. G. MARTINS; R. GÓMEZ-NIETO; J. C. BITTENCOURT; D. E. LOPEZ; J. A. C. HORTA-JUNIOR. *São Paulo State Univ. - UNESP, Federal Univ. of Mato Grosso do Sul, Brazil, Inst. de Neurociências de Castilla y León (INCYL), Univ. de Salamanca, Inst. de Investigación Biomédica de Salamanca (IBSAL). Univ. de Salamanca, Lab. of Chem. Neuroanatomy, Inst. of Biomed. Sciences, Univ. of São Paulo.*

11:00 CC24 **329.12** Cortisol modulates feed-forward inhibition in the goldfish auditory startle circuit. D. R. BRONSON*; T. PREUSS. *Hunter Col., Grad. Center, CUNY.*

8:00 CC25 **329.13** Interactions of auditory evoked responses during the sleep-wakefulness cycle in the cat. D. A. HORVATH*; A. NAGY; R. FIATH; L. WITTNER; I. ULBERT; G. KARMOS. *RCNS HAS, Semmelweis Univ., Pázmány Péter Catholic Univ.*

9:00 CC26 **329.14** Tinnitus-inducing noise trauma and D-cycloserine alter amygdalo-hippocampal excitatory biomarkers. M. R. KAPOLOWICZ*; J. I. SEDILLO; M. M. MAKKIEH; L. T. THOMPSON. *The Univ. of Texas at Dallas.*

10:00 CC27 **329.15** ▲ Evidence for multisystem plasticity in non-classical auditory regions in early stages of tinnitus. I. SEDILLO; M. R. KAPOLOWICZ; M. MAKKIEH; A. R. MOLLER*; L. T. THOMPSON. *The Univ. of Texas at Dallas, The Univ. of Texas at Dallas.*

11:00 CC28 **329.16** ▲ Age-related changes in the total number of neurons and SMI-32-immunoreactive neurons in the central auditory system of the rat. J. BURIANOVA; L. OUDA; J. M. SYKA*. *Inst. Exptl. Med. ASCR.*

POSTER

330. Auditory System: Adaptation, Learning, and Memory

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 CC29 **330.01** Galanin induces visual response in the rat's auditory cortical neurons. J. FENG*; X. CHEN; J. HE. *City Univ. of Hong Kong.*

9:00 CC30 **330.02** Prefrontal cortex maintains short-term associative memory in the auditory cortex through galanin. X. CHEN*; J. TANG; J. FENG; W. SUN; Z. ZHANG; X. LI; J. HE. *City Univ. of Hong Kong, The Hong Kong Polytechnic Univ.*

10:00 CC31 **330.03** Moderate vagus nerve stimulation directs more cortical plasticity than more intense VNS. M. S. BORLAND*; E. P. BUELL; C. T. ENGINEER; N. A. MORENO; Z. I. ALAM; M. M. PANTALIA; P. SHARMA; M. C. LANE; C. B. JOST; A. T. T. DO; M. P. KILGARD. *Univ. of Texas At Dallas, Univ. of Texas at Dallas.*

11:00 CC32 **330.04** State-dependent changes in response selectivity gated by behavior in ferret higher order auditory cortex. D. ELGUEDA*; S. V. DAVID; S. RADTKE-SCHULLER; S. A. SHAMMA; J. B. FRITZ. *Univ. of Maryland, Univ. of Maryland, Oregon Hlth. and Sci. Univ., Ludwig-Maximilians-University, École Normale Supérieure.*

8:00 CC33 **330.05** Stimulus-specific adaptation and deviance detection in inferior colliculus and auditory cortex. L. KHOURI*; B. AWWAD; I. HERSHENHOREN; I. NELKEN. *Hebrew Univ.*

9:00 CC34 **330.06** Active retrieval of long-term auditory memories modulates neuronal activity in primary and secondary auditory cortices. P. YIN*; D. L. STRAIT; J. B. FRITZ; S. A. SHAMMA. *Univ. Maryland.*

10:00 CC35 **330.07** Generation of spontaneous activity in the auditory system following noise induced hearing loss. C. H. PARSONS*; N. D. SOBARUN; S. CHEN; J. W. MORLEY. *Univ. of Western Sydney, Univ. of Sydney.*

11:00 CC36 **330.08** Adaptive coding of sound level in the auditory midbrain and cortex: An *in vivo* intracellular study. J. A. GARCIA-LAZARO*; R. DONATO; N. A. LESICA; D. MCALPINE. *Ear Inst.*

8:00 DD1 **330.09** Cholecystokinin enables neural plasticity in the auditory cortex. X. LI*; Z. ZHANG; W. SUN; J. HE. *The Hong Kong Polytechnic Univ., City Univ. of Hong Kong.*

9:00 DD2 **330.10** Cholecystokinin enables artificial, cross-modal association in the neocortex. W. SUN*; J. HE. *City Univ. of Hong Kong.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 DD3 **330.11** Sound-specific plasticity in auditory midbrain induced by cholinergic pedunculopontine tegmental nucleus. F. LUO; J. YAN*. *Central China Normal Univ., Univ. of Calgary Fac. of Med.*

11:00 DD4 **330.12** Auditory masking in spontaneously hypertensive rat: An examination of the continuum of impulsivity. J. O'MALLEY; A. SHEMERY; S. SEQUIERA; K. PONDER; J. DYCHE*; D. HOLT; L. GRAY. *James Madison Univ., James Madison Univ.*

8:00 DD5 **330.13** Local field potential activity in rostral superior temporal cortex during auditory short-term memory. C. R. CAMALIER*; B. H. SCOTT; P. YIN; M. MISHKIN. *NIH, Univ. of Maryland.*

9:00 DD6 **330.14** Attention modulates single-trial adaptation of human high-frequency cortical auditory responses. S. J. ELIADES; A. KORZENIEWSKA; W. S. ANDERSON; D. RAMADOSS; N. E. CRONE; D. F. BOATMAN*. *Univ. of Pennsylvania Perelman Sch. of Med., Johns Hopkins Sch. Med.*

10:00 DD7 **330.15** ECoG evidence for differential involvement of temporal and frontal cortex in processing predicted and unpredicted deviation in the auditory environment. S. DÜRSCHMID*; L. DEOUELL; H. HINRICHS; H. HEINZE; R. T. KNIGHT. *Otto-von-Guericke Univ. Magdeburg, Univ. of California, Otto-von-Guericke Univ., Leibniz Inst. of Neurobio. (LIN), Hebrew Univ., German Ctr. for Neurodegenerative Dis. (DZNE), Helen Wills Neurosci. Inst., Univ. of California.*

POSTER

331. Multisensory and Temporal Factors in Cross-Modal Processing

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 DD8 **331.01** Multisensory integration alters the tracking of time-varying signals. B. A. ROWLAND*; B. E. STEIN; J. VAUGHAN. *Wake Forest Sch. of Med.*

9:00 DD9 **331.02** Bilateral tecto-reticular pathway in cats. T. LISTE; R. LEIRAS; F. J. MARTIN-CORA*; A. CANEDO. *Dept. of Physiology, Sch. of Medicine, Univ. Santiago de Compostela.*

10:00 DD10 **331.03** Multisensory stochastic resonance in the superior colliculus. N. HUIDOBRO*; E. MANJARREZ. *Instituto De Fisiologia, Benemerita Universidad Au, Inst. de Fisiologia, Benemerita Univ. Autonoma de Puebla.*

11:00 DD11 **331.04** The balance and temporal order of unisensory responses predicts multisensory integration in superior colliculus neurons. R. L. MILLER*; S. R. PLUTA; B. E. STEIN; B. A. ROWLAND. *Wake Forest Sch. of Med., Univ. of California, Berkeley.*

8:00 DD12 **331.05** Multisensory plasticity in the superior colliculus: Adaptation to short-term statistics. C. DONG; B. A. ROWLAND; B. E. STEIN*. *Wake Forest Sch. Med.*

9:00 DD13 **331.06** Multisensory inputs enhance neuronal target discrimination in monkey prefrontal cortex. F. KATSUKI*; M. SAITO; M. A. BURT; T. R. STANFORD; B. A. ROWLAND; B. E. STEIN; C. CONSTANTINIDIS. *Wake Forest Sch. Med.*

10:00 DD14 **331.07** Examining the role of the serotonergic system in multisensory function. L. KURELA*; J. KRUEGER-FISTER; M. T. WALLACE. *Vanderbilt Univ.*

11:00 DD15 **331.08** Visual influences in cat auditory cortex are lamina-specific. J. KRUEGER FISTER*; L. R. KURELA; A. R. NIDIFFER; T. A. HACKETT; M. T. WALLACE. *Vanderbilt Univ., Vanderbilt Univ.*

8:00 DD16 **331.09** Multisensory temporal processing is dependent upon stimulus intensity. A. R. NIDIFFER*; Q. ZHENG; M. T. WALLACE. *Vanderbilt Univ., Vanderbilt Univ.*

9:00 DD17 **331.10** Visual-auditory interactions in ferret auditory cortex: The effect of temporal coherence. H. ATILGAN*; S. TOWN; K. WOOD; J. BIZLEY. *UCL Ear Inst.*

10:00 DD18 **331.11** Thalamocortical dynamics of rhythmic selective and tonic suppressive modes in the auditory system. P. LAKATOS*; A. BARCZAK; S. A. NEYMOTIN; W. W. LYTTON; T. MCGINNIS; D. C. JAVITT; M. N. O'CONNELL. *Nathan Kline Inst., NYU Langone Med. Ctr., State Univ. of New York, Downstate Med. Ctr.*

11:00 DD19 **331.12** Crossmodal selection of an auditory stream in a virtual cocktail party. M. N. O'CONNELL*; A. BARCZAK; A. Y. FALCHIER; D. ROSS; C. E. SCHROEDER; P. LAKATOS. *Nathan Kline Instit, NYU Langone Med. Ctr.*

8:00 DD20 **331.13** Entrainment of frontal cortices by selective attention. J. L. HERRERO*; D. ROSS; J. COSTA-FAIDELLA; A. FALCHIER; P. LAKATOS; C. SCHROEDER. *Columbia Univ., Cognitive Neurosci. and Squizophrenia Program, Nathan Klein Inst.*

9:00 DD21 **331.14** Interplay between alpha and the phase of low-frequency oscillations in the encoding of time order. L. GRABOT*; A. KÖSEM; K. PESTKE; V. VAN WASSENHOVE. *CEA/DSV/I2BM/NeuroSpin/Unicog.*

10:00 DD22 **331.15** Short term perceptual training enhances multisensory temporal acuity. M. A. DE NIEAR*; S. H. BAUM; C. A. VARELA PATINO; P. B. GUPTA; M. T. WALLACE. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

11:00 DD23 **331.16** Audiovisual temporal processing across the lifespan. S. H. BAUM*; R. A. STEVENSON; J. KRUEGER FISTER; P. A. NEWHOUSE; M. T. WALLACE. *Vanderbilt Univ., Univ. of Toronto, Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

8:00 DD24 **331.17** Simulated masses in an admittance controlled haptic device are judged to be heavier when the feedback is delayed. I. A. KULING*; W. MUGGE; B. ONNEWEER; E. BRENNER; J. B. J. SMEETS. *VU Univ. Amsterdam, Delft Univ. of Technol.*

9:00 DD25 **331.18** Impaired neural processing efficiency of multisensory integration in Autism Spectrum Disorders. R. A. STEVENSON*; S. BROWN-LAVOIE; M. SEGERS; J. BEBKO; W. STEVENS; J. VIVIANO; S. BAUM; S. FERBER; M. D. BARENSE; M. WALLACE. *Vanderbilt Univ. Med. Ctr., Univ. of Toronto, York Univ., Vanderbilt Univ. Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

332. Extrastriate Cortex: Organization

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 DD26 **332.01** Responses to radial frequency patterns in lateral occipital visual field maps LO1 and LO2 during shape and orientation discriminations. S. J. LAWRENCE*; R. J. W. VERNON; A. D. GOUWS; E. H. SILSON; A. B. MORLAND. *Univ. of York, Natl. Inst. of Mental Hlth.*

9:00 DD27 **332.02** Functional differences within sub-divisions of human V5/MT+: An fMRI-guided rTMS study. S. L. STRONG*; E. H. SILSON; A. D. GOUWS; A. B. MORLAND; D. J. MCKEEFRY. *Univ. of Bradford, Univ. of York, Univ. of York.*

10:00 DD28 **332.03** Contributions of LO1, LO2 and V5/MT to the discrimination of speed and orientation of drifting gratings. A. B. MORLAND*; E. H. SILSON; A. D. GOUWS; J. RODGERS; M. HYMERS; D. J. MCKEEFRY. *Univ. of York, York Neuroimaging Ctr., Univ. of Bradford.*

11:00 DD29 **332.04** Responses to shape from form coherence in the lateral occipital cortex. R. J. VERNON*; S. J. D. LAWRENCE; A. D. GOUWS; A. B. MORLAND. *Univ. of York.*

8:00 DD30 **332.05** The effective connectivity of macaque areas CIP and PIP. E. PREMEREUR*; W. VANDUFFEL; P. JANSSEN. *KU Leuven, Athinoula A. Martinos Ctr. for Biomed. Imaging, Harvard Med. Sch.*

9:00 DD31 **332.06** Visual field maps in human association cortices. C. E. CURTIS*; W. E. MACKEY; J. WINAWER. *NYU.*

10:00 DD32 **332.07** ● The retinotopic and functional organization of the human V3A complex. H. KOLSTER*; R. PEETERS; G. A. ORBAN. *KU Leuven, UZ Gasthuisberg, Univ. di Parma.*

11:00 EE1 **332.08** Abnormal white matter structures in a case of recovery from cerebral achromotopsia and prosopagnosia. A. D. GOUWS*; J. RAYMOND; I. NEATROUR; S. HICKMAN; T. J. ANDREWS; A. B. MORLAND. *YNiC, Univ. of York, Univ. of York, Royal Hallamshire Hosp., Hull York Med. Sch.*

8:00 EE2 **332.09** Pre-stimulus occipital mechanisms biasing orientation perception: A chronometric TMS study. T. A. DE GRAAF*; F. DUECKER; M. FERNHOLZ; A. T. SACK. *Maastricht Univ.*

9:00 EE3 **332.10** Increased visual stimulation systematically decreases activity in posterior superior temporal cortex. S. NASR*; H. STEMMANN; W. VANDUFFEL; R. B. H. TOOTELL. *Martinos Ctr. For Biomed. Imaging, Massachusetts Gen. Hosp., Harvard Med. Sch., KU Leuven Med. Sch.*

10:00 EE4 **332.11** Similar organization of the ventral visual pathway in humans and macaque monkeys: Color regions sandwiched between face and scene regions. R. LAFER-SOUSA*; B. R. CONWAY; A. J. E. KELL; J. FEATHER; A. TAKAHASHI; N. G. KANWISHER. *MIT, Wellesley Col., Harvard Med. Sch., MIT, MIT.*

11:00 EE5 **332.12** Sensitivity to the gradient of spatial frequency in the early visual cortex. C. MASSOT*; T. LEE. *Carnegie Mellon Univ., Carnegie Mellon Univ.*

8:00 EE6 **332.13** Human cortical visual pathways for the perception of figural shapes that violate Gestalt principles: fMRI of 3D concave shape from stereopsis. A. D. CATE*; J. M. BROWN; S. M. ROLDAN. *Virginia Polytechnic Inst. and State Univ., Virginia Tech.*

9:00 EE7 **332.14** Visual responses in right human premotor cortex. P. AVANZINI; F. CARUANA; I. SARTORI; V. PELLICCIA; G. CASACELI; R. O. ABDOLLAHI; G. RIZZOLATTI; G. A. ORBAN*. *Univ. of Parma, Italian Inst. of Technol., Hospedale Niguarda.*

10:00 EE8 **332.15** There's a 'U' in clutter: Evidence for sparse codes underlying clutter tolerance in human vision. P. H. COX*; M. RIESENHUBER. *Georgetown Univ.*

11:00 EE9 **332.16** Neuronal basis of resting state functional connectivity investigated with simultaneous wide field imaging of intrinsic and calcium signal. T. MATSUI*; T. MURAKAMI; K. OHKI. *Kyushu Univ.*

8:00 EE10 **332.17** Assessing the relationship of anatomy and function in the human ventral temporal cortex. M. A. FROST*; K. S. WEINER; M. A. BARNETT; K. GRILL-SPECTOR; R. GOEBEL. *Maastricht Univ., Stanford Univ., Stanford Neurosci. Inst., Netherlands Inst. for Neurosci.*

POSTER

333. Binocular Vision

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 EE11 **333.01** Stability of eye position in Strabismus. D. L. ADAMS*; J. R. ECONOMIDES; J. C. HORTON. *UCSF.*

9:00 EE12 **333.02** Binocular contrast perception is optimized across both eyes. P. GUAN*; M. S. BANKS. *UC Berkeley-UCSF, Univ. of California, Berkeley.*

10:00 EE13 **333.03** Disparity tuning in human area MT measured using sub-millimeter resolution 7 Tesla functional magnetic resonance imaging (fMRI). T. C. EMMERLING*; J. ZIMMERMANN; M. FROST; R. GOEBEL. *Maastricht Univ., Maastricht Brain Imaging Ctr. (M-BIC), Netherlands Inst. for Neurosci. (NIN).*

11:00 EE14 **333.04** 3D motion sensitivity in binocular disparity and motion selective models. P. M. BAKER; W. BAIR*. *Univ. of Washington.*

8:00 EE15 **333.05** Binocular visual responses in primate lateral geniculate nucleus. N. ZEATER*; S. K. CHEONG; S. G. SOLOMON; B. DREHER; J. W. MORLEY; P. R. MARTIN. *Sch. of Med. Sci., ARC Ctr. of Excellence for Integrative Brain Function, Save Sight Inst., Exptl. Psychology, Sch. of Med., Sch. of Med. Sciences, The Univ. of New South Wales.*

9:00 EE16 **333.06** Emotion portrayed by a face is more important than the identity of the face during binocular rivalry in human observers. N. MALEK*; A. GAO; D. MESSINGER; R. JOOBER; K. TABBANE; J. C. MARTINEZ-TRUJILLO. *McGill Univ., Univ. of Miami, Douglas Hosp. Res. Ctr.*

10:00 EE17 **333.07** The effect of reversible inactivation of the caudal intraparietal area on 3D structure categorization. I. C. VAN DROMME*; W. VANDUFFEL; P. JANSSEN. *Kuleuven, Athinoula A Martinos Ctr, Biomed Imaging, Harvard Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 EE18 **333.08** Dissociation in binocular depth perception: Intact stereopsis is not necessary for the perception of 3D depth. I. TSIRLIN*; L. COLPA; H. C. HOLTZ; A. M. F. WONG. *The Hosp. for Sick Children.*

8:00 EE19 **333.09** Optical imaging of disparity-defined-edge responses in monkey early visual cortex. Y. FANG*; J. HU; M. CHEN; H. XU; C. HAN; P. LI; S. ZHU; H. D. LU. *SKLCNL, Beijing Normal Univ., Inst. of Neuroscience, CAS.*

9:00 EE20 **333.10** A biologically inspired stereo algorithm featuring within-scale mutual inhibition and multi-scale summation. H. S. LEE*; W. SINGER; A. DOBBINS. *Max Planck Inst. For Brain Res., Univ. of Alabama at Birmingham.*

10:00 EE21 **333.11** The influence of eye vergence on retinotopic organization in human early visual cortex. B. R. COTTEREAU*; J. DURAND; N. VAYSSIÈRE; Y. TROTTER. *Ctr. de recherche Cerveau & Cognition.*

11:00 EE22 **333.12** Receptive field properties of V1 and V2 neurons in amblyopic macaque monkeys revealed by local spectral reverse correlation. R. D. KUMBHANI*; N. J. MAJAJ; L. E. HALLUM; C. SHOONER; C. M. ZIEMBA; V. GARCIA-MARIN; J. G. KELLEY; J. A. MOVSHON; L. KIORPES. *New York Univ.*

8:00 EE23 **333.13** Abnormal response dynamics of V2 neurons in amblyopic monkeys. X. TAO*; B. ZHANG; G. SHEN; E. L. SMITH, III; Y. CHINO. *Univ. of Houston, NOVA Southeastern Univ.*

9:00 EE24 **333.14** Noise in V2 neurons of amblyopic monkeys. B. ZHANG*; X. TAO; G. SHEN; E. SMITH; Y. CHINO. *Nova Southeastern Univ., Univ. of Houston.*

10:00 EE25 **333.15** Monocular and binocular mechanisms of depth perception in frogs and toads. V. A. BASTAKOV*. *Inst. For Info Transmission Problems RAS.*

11:00 EE26 **333.16** Predictive remapping, binocular fusion, and invariant category learning of natural objects during scanning of a depthful scene with eye movements. S. GROSSBERG*; K. SRINIVASAN; A. YAZDANBAKHSH. *Boston Univ.*

POSTER

334. Sensorimotor Transformation: Physiology and Imaging

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 EE27 **334.01** Descending control of swim posture by a midbrain nucleus in zebrafish. T. THIELE*; J. DONOVAN; D. MEARNS; H. BAIER. *Max Planck Inst. of Neurobio.*

9:00 EE28 **334.02** Circuits for size discrimination in the larval zebrafish. A. J. BARKER*; H. BAIER. *MPI of Neurobio.*

10:00 FF1 **334.03** Evolutionary conservation of cortical motor organisation: Evidence from efferent connectivity and function of the lamprey homologue - the lateral pallium. S. M. SURYANARAYANA; F. M. OCAÑA; L. CAPANTINI; B. ROBERTSON; S. GRILLNER*. *Karolinska Inst., Univ. of Sevilla.*

11:00 FF2 **334.04** Afferent connectivity of the lateral pallium in the lamprey - evolutionary perspectives on the telencephalon. B. ROBERTSON*; S. M. SURYANARAYANA; S. GRILLNER. *Dept. of Neuroscience, Karolinska Institutet.*

8:00 FF3 **334.05** Fast three-dimensional imaging of neuronal assemblies in the mouse visual cortex using genetically-encoded neuronal indicators and two-photon microscopy. S. LINDA*; G. SZALAY; G. KATONA; P. MAÁK; M. VERESS; K. SPITZER; B. RÓZSA. *Inst. of Exptl. Med. of the Hungaria, Inst. of Exptl. Med. of the Hungarian Acad. of Sci., Budapest Univ. of Technol. and Econ.*

9:00 FF4 **334.06** The effects of pulvinar microstimulation on cortical BOLD activity in a behaving monkey. L. GIBSON; E. SPANOU; M. WILKE; I. KAGAN*. *German Primate Ctr., Univ. Med.*

10:00 FF5 **334.07** Time-dependent effects of pulvinar microstimulation on visually-guided saccades and target selection. A. DOMINGUEZ-VARGAS; L. SCHNEIDER; I. KAGAN; M. WILKE*. *German Primate Ctr., Univ. Med. Goettingen.*

11:00 FF6 **334.08** Time course of affordances processing in macaque ventral premotor neurons. M. MARANESI*; S. BRUNI; A. LIVI; L. FOGASSI; G. RIZZOLATTI; L. BONINI. *Brain Ctr. for Social and Motor Cognition (IIT), Univ. of Parma.*

8:00 FF7 **334.09** Encoding of contextual affordances by monkey ventral premotor grasping neurons during goal-directed action sequences. S. BRUNI; L. BONINI; V. GIORGETTI; F. SIRACUSA; E. BARBERINI; L. FOGASSI*. *Univ. of Parma, Italian Inst. of Technol.*

9:00 FF8 **334.10** Cortical and cerebellar activation during saccade adaptation in humans in the absence of corrective saccades. A. J. GUILLAUME*; J. FULLER; R. SRIMAL; C. E. CURTIS. *New York Univ.*

10:00 FF9 **334.11** Comparative analysis of biomechanical parameters and cortical electrical activity during successful and unsuccessful movements in humans. A. B. TREMBACH*; E. IVASCHENKO. *Univ. of Physical Educ.*

11:00 FF10 **334.12** Cortical mechanisms for memory-guided reach direction in the human: Progression from target memory through motor planning and execution. D. C. CAPPADOCIA*; S. MONACO; Y. CHEN; J. CRAWFORD. *York Univ., York Univ., York Univ., York Univ.*

8:00 FF11 **334.13** Cortical substrates for the integration of object properties and intended actions. S. MONACO*; Y. CHEN; J. D. CRAWFORD. *York Univ.*

9:00 FF12 **334.14** Anticipatory visuomotor control in an interceptive action: An fMRI study. R. M. DE AZEVEDO NETO*; A. X. BATISTA; E. AMARO JR. *Sch. of Medicine, Univ. of São Paulo.*

10:00 FF13 **334.15** The specificity of the supramarginal tool use observation area in intracerebral recordings. F. CARUANA*; P. AVANZINI; I. SARTORI; V. PELLICCIA; G. CASACELI; G. LO RUSSO; G. RIZZOLATTI; G. A. ORBAN. *Univ. of Parma, Italian Inst. of Technol., Niguarda Hosp.*

POSTER

335. Hair Cells, End-Organ, and Nerve

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 FF14 **335.01** Influence of duration and magnitude of gravity loading and unloading on mouse inner ear otoconia. R. D. BOYLE*; Y. POPOVA; J. VALERAS. *Ames Res. Center, NASA,, Univ. of California, Santa Cruz.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 FF15 **335.02** New insights of vestibular hair cell synaptic ultrastructure using TEM tomography and serial section SEM. L. F. HOFFMAN*; I. A. LOPEZ; K. G. SHEETS; F. E. SCHWEIZER. *UCLA Sch. Med.*

10:00 FF16 **335.03** ● The impact of type 2 diabetes on the otolith organs in patients with benign paroxysmal positional vertigo. L. J. D'SILVA*; H. STAECKER; J. LIN; J. FERRARO; C. MADDUX; P. M. KLUDING. *Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr.*

11:00 FF17 **335.04** Functionality and espression of the ATP receptors in the inner ear of the chicken embryo. F. GALINDO*; E. MONJARAZ; J. CEBADA; A. FLORES. *Benemerita Univ. Autonoma De Puebla, Univ. de las Americas, Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autónoma de Puebla.*

8:00 FF18 **335.05** Expression of store-operated channel components in rodent utricular sensory epithelia. K. M. HURLEY*; D. GUERRERO. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*

9:00 FF19 **335.06** Acetylcholine-mediated ionotropic currents in vestibular calyx afferents and type II hair cells: Support for differential efferent-mediated responses. Z. YU*; S. G. SADEGHI; J. M. MCINTOSH; E. GLOWATZKI. *Johns Hopkins Univ. Sch. of Med., Univ. at Buffalo, Veterans Affairs Med. Ctr., Univ. of Utah.*

10:00 FF20 **335.07** Spectrins in the vestibular inner ear : Exploring the nature of βI- and βIII-subunit complementarity. R. L. CHIDAVAENZI*; S. D. PRICE; A. LYSAKOWSKI. *Univ. of Illinois At Chicago.*

11:00 FF21 **335.08** Vestibular physiological deficit in alpha9 and alpha9/10 nicotinic acetylcholine receptor knockout mice. B. J. MORLEY*; A. LYSAKOWSKI; S. VIJAYAKUMAR; S. D. PRICE; D. MENAPACE; T. JONES. *Boys Town Natl. Res. Hosp, Univ. of Illinois at Chicago, Univ. of Nebraska, Lincoln.*

8:00 FF22 **335.09** Modulatory action of betahistine in the resting discharge of vestibular afferent neurons in the rat isolated vestibule. A. B. CHACÓN*; A. ORTEGA; E. SOTO; R. VEGA. *Inst. of Physiol. UAP.*

9:00 FF23 **335.10** Blast-induced vestibular deficits in rats. H. ZHU*; J. HUANG; X. TANG; Y. YU; J. HYDE; D. DING; A. MAKLAD; W. MUSTAIN; C. JERNIGAN; E. YELVERTON; E. GOMEZ; W. ZHOU. *Dept Otolaryngology, Univ. Mississippi Med. Ctr., Univ. at Buffallo, Dept Neurobio. and Anatom. Sciences, Univ. Mississippi Med. Ctr., Program in Neuroscience, Univ. Mississippi Med. Ctr., Base Pair Program, Univ. Mississippi Med. Ctr.*

POSTER

336. Pain Transduction: TRP Channels

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 FF24 **336.01** Age-related differences in the sensitivity to allodynia produced by TRP receptor agonists. L. C. SULLIVAN*; R. J. JAMSHIDI; P. M. LOCOCO; K. A. BERG; W. P. CLARKE. *Univ. of Texas Hlth. Sci. Ctr.*

9:00 FF25 **336.02** 5-Benzyloxytryptamine, a 5-HT receptor agonist, is an antagonist of cold-activated TRPM8 channels. J. MANENSCHIJN*; C. MORENILLA-PALAO; C. FERNÁNDEZ-PEÑA; F. VIANA. *Inst. De Neurociencias, Inst. de Neurociencias.*

10:00 FF26 **336.03** Enhancements by 1,8- and 1,4-cineole of spontaneous excitatory transmission in adult rat spinal substantia gelatinosa neurons. C. JIANG*; T. FUJITA; N. XU; S. OHTSUBO; A. MATSUSHITA; E. KUMAMOTO. *Fac. Med. Saga Univ.*

11:00 FF27 **336.04** ● Proteasome inhibition sensitizes Transient Receptor Potential Vanilloid type 1 in primary sensory neurons. J. M. SPRAGUE*; A. YEKKIRALA; N. SOLTANI; O. VIRAMONTES; C. J. WOOLF. *Children's Hospital, Boston, Harvard Sch. of Dent. Med., Harvard Med. Sch., Karolinska Inst., Harvard Col.*

8:00 FF28 **336.05** Capsaicin induces analgesia via inhibiting the generation of action potential and suppressing voltage-gated sodium currents in primary sensory neurons. X. ZHANG*; X. MA. *Inst. of Neuroscience, Chinese Acad. of Sci.*

9:00 FF29 **336.06** D1r agonist skf-38393 activates trpv1 via plc/dag pathway in mouse drg neuron. I. AN*; S. LEE; S. JUNG; D. LEE; S. OH. *Hanyang Univ., Depart of physiology, school of dentistry, Seoul Natl. Univ.*

10:00 FF30 **336.07** The role of GFRα3 in cold sensitization after injury. E. K. LIPPOLDT*; D. D. MCKEMY. *USC.*

11:00 FF31 **336.08** The mechanism of pain associated with protoporphyrin irradiation. L. WRIGHT; M. GALLACHER; F. BULL; D. BAPTISTA-HON; J. WOODS; S. IBBOTSON; T. G. HALES*. *Univ. of Dundee, Univ. of Dundee.*

8:00 FF32 **336.09** Trigeminal nerve activation and initiation of neurogenic inflammation through irritant-sensing channels and secondary chemosensory cells in the mouse olfactory epithelium. T. R. IQBAL*; C. C. HEGG. *Michigan State Univ., Michigan State Univ.*

9:00 GG1 **336.10** Behavioral study of trpa1 channel inactivation by nsaids. M. G. TSAGARELI*; I. NOZADZE; N. TSIKLAURI; G. GURTSKAIA. *Ivane Beritashvili Exptl. Biomedicine Ctr., Ivane Beritashvili Exptl. Biomedicine Ctr.*

10:00 GG2 **336.11** Agonist-dependent activation, permeation, and desensitization properties of common nonsynonymous variants of human transient receptor potential vanilloid 1. J. JOSEPH; S. WANG; J. ASGAR; L. DIATCHENKO; J. Y. RO; M. CHUNG*. *Univ. Maryland Dent. Sch., McGill Univ.*

11:00 GG3 **336.12** Decreased basal tearing rate developed with age is associated with reduced number and altered activity of corneal cold thermoreceptor fibers in mice. O. GONZALEZ-GONZALEZ; I. ALCALDE; A. IÑIGO-PORTUGUES; J. GALLAR*; C. BELMONTE; J. MERAYO-LLOVES. *Fundación de Investigación Oftalmológica, Univ. de Oviedo, Inst. De Neurociencias/ Univ. Miguel Hernandez-Csic.*

8:00 GG4 **336.13** The PDZ protein Whirlin is an intracellular modulator of TRPV1 receptor. M. G. CIARDO; N. CUESTA-GARROTE; A. ANDRÉS-BORDERÍA; M. CAMPRUBÍ-ROBLES; P. VALENTE; R. PLANELLS-CASES; A. V. FERRER-MONTIEL*. *Univ. Miguel Hernandez, Univ. of Genova, Max-Delbrück-Centrum für Molekulare Medizin (MDC)/Leibniz-Institut für Molekulare Pharmakologie (FMP), UPV/EHU-CSIC-FBB.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 GG5 **336.14** ● Activation of TRPC channels contributes to OA-NO_2 induced responses in guinea pig DRG neurons. X. ZHANG; J. M. BECKEL; S. L. DAUGHERTY; B. A. FREEMAN; S. R. WOODCOCK; W. C. DE GROAT*. *Univ. of Pittsburgh, Sch. of Med., Univ. Pittsburgh Med. Sch.*

10:00 GG6 **336.15** Inhibition of spinal cytochrome p450 reduces thermal and mechanical allodynia in a post-burn model of partial-thickness injury. D. GREEN*; S. RUPAREL; X. GAO; K. HARGREAVES. *Univ. of Texas Hlth. Sci. Ctr. At San Antonio, UTHSCSA.*

11:00 GG7 **336.16** ● Efficacy of TRPA1 channel inhibition in the rat monosodium iodoacetate joint rotation model of joint pain. J. B. TURNER*; J. MIRANDA; P. COX; H. REES; C. WEST; N. SWAIN; D. PRYDE; A. GERLACH. *Pfizer Neusentis, Pfizer Neusentis, Pfizer Neusentis.*

8:00 GG8 **336.17** Lipids released by oral squamous cell carcinoma cells activate trp channels leading to nociceptive behavior in rats. S. RUPAREL*; M. BENDELE; A. WALLACE; S. RUPAREL. *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, Univ. of texas Hlth. Sci. Ctr. at San Antonio.*

9:00 GG9 **336.18** The mu opioid receptor physiologically regulates trpm8 activity. P. SCHERER*; R. K. BARROW; D. H. PANG; M. J. CATERINA; S. H. SNYDER. *Johns Hopkins Med. Inst., Johns Hopkins Med. Inst., Johns Hopkins Med. Inst.*

10:00 GG10 **336.19** ● Keratinocyte can acutely stimulate nociceptive responses. M. J. CATERINA*; Z. PANG; T. SAKAMOTO; A. D. GULER. *Johns Hopkins Sch. Med., Univ. of Virginia.*

11:00 GG11 **336.20** Analgesic efficacy of RQ-00436115, a novel orally active TRPM8 antagonist, in oxaliplatin-induced cold hypersensitive rats. S. WATANABE*; A. FUJIUCHI; Y. SAKAGUCHI; Y. NISHI; A. YAMADA; H. OHSHIRO; M. OHMI; K. ANDO; Y. SHISHIDO. *RaQualia Pharma Inc.*

8:00 GG12 **336.21** Dopamine inhibition of transient receptor potential vanilloid 1 (TRPV1) channels in dorsal root ganglia neurons. S. CHAKRABORTY*; M. PUOPOLO. *Stonybrook Univ.*

9:00 GG13 **336.22** Group lll mglur8 activation attenuates mo (trpa1)-induced activity. R. M. GOVEA*; G. L. HARGETT; S. M. CARLTON. *Univ. of Texas Med. Br.*

10:00 GG14 **336.23** TRPV1 modulation by lipid-autacoids using transcriptomics, precursor fatty acids, and functional activation analyses. J. R. GROSS; C. E. RAMSDEN; S. GOSWAMI; A. J. MANNES*; M. J. IADAROLA. *The Natl. Inst. of Hlth., Natl. Inst. of Hlth., Natl. Inst. of Hea.*

POSTER

337. Descending Modulation

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 GG15 **337.01** Chronic methylphenidate administration attenuates the antinociceptive effect of microinjecting the dopamine agonist apomorphine into the rat periaqueductal gray. S. M. TAFF*; E. N. BOBECK; M. M. MORGAN. *Washington State Univ. Vancouver.*

9:00 GG16 **337.02** Relationship of activation of phenotypically-distinct neuronal populations with acute pain, conditioned fear, and fear-conditioned analgesia. R. K. BUTLER*; S. EHLING; A. E. THOMSON; S. J. WALL; V. ZARIC; B. CASE; D. KNAZOVICKY; M. E. GRUEN; W. BÄUMER; R. M. RODRIGUIZ; V. M. POGORELOV; D. K. ARYAL; W. C. WETSEL; B. X. LASCELLES. *North Carolina State Univ. Col. of Vet. Med., Comparative Pain Res. Lab., Ctr. for Comparative Med. and Translational Res., North Carolina State Univ. Col. of Vet. Med., Duke Univ. Med. Ctr., Mouse Behavioral and Neuroendocrine Analysis Core Facility.*

10:00 GG17 **337.03** Peripheral nerve injury reduces analgesic effects of systemic morphine via spinal 5-hydroxytryptamine 3 receptors. M. KIMURA*. *Gunma Univ. Grad. Sch. of Med.*

11:00 GG18 **337.04** Astrocyte and microglia activity within the periaqueductal gray: Sex differences in pain and analgesia. H. H. DOYLE*; L. N. EIDSON; A. Z. MURPHY. *Georgia State Univ., Georgia State Univ.*

8:00 GG19 **337.05** Shift from enhanced to suppressed hypersensitivity with the rise of amygdaloid glutamate in neuropathic rats: Roles of spinal 5-HT receptor subtypes. B. SAGALAJEV*; N. BOURBIA; H. WEI; A. PERTOVAARA. *Univ. of Helsinki.*

9:00 GG20 **337.06** Monocyte-derived CXCL1 chemokine is a critical mediator of pain inhibition induced by transplantation of bone marrow stromal cells. W. GUO*; S. IMAI; S. ZOU; F. WEI; R. DUBNER; K. REN. *Univ. of Maryland.*

10:00 GG21 **337.07** Dreadd activation of dopaminergic neurons in the periaqueductal gray produces antinociception. N. TAYLOR*; S. ZHENG; C. VAN DORT; E. BROWN; K. SOLT. *Massachusetts Gen. Hosp., MIT, Massachusetts Gen. Hosp.*

11:00 GG22 **337.08** ▲ Resistance exercise-induced antinociception is mediated by endocannabinoid system activation in rats. G. GALDINO*; T. ROMERO; J. SILVA; D. AGUIAR; A. DE PAULA; J. CRUZ; C. PARRELLA; F. PISCITELLI; I. DUARTE; V. DI MARZO; A. PEREZ. *Federal Univ. of Alfenas, Federal Univ. of Minas Gerais, Endocannabinoid Res. Group.*

8:00 GG23 **337.09** Analgesic effect induced by brief social isolation. T. HAN; H. S. NA*; S. BACK. *Korea Univ. Med. Col.*

9:00 GG24 **337.10** Prediction error theory influences placebo and nocebo effects. L. COLLOCA; N. DOMINIC; D. SHURTLEFF*; K. SIMMONS; T. LIANG; D. PINE; M. ERNST; C. GRILLON. *NCCAM, NIMH, NCCAM/NIH, NCCAM/NIH, NIMH, NIMH/NIH.*

10:00 GG25 **337.11** New placebo analgesia model induced by cue conditioning in rodent. I. LEE*; Y. CHAE. *AMSRC.*

11:00 GG26 **337.12** Microinjection of Neuropeptide W, an endogeniou ligand for GPR7 and 8, into rostral ventromedial medulla (RVM) produces an analgesic effect in the rat formalin test. T. NONAKA*; T. YAMADA; M. ARAKI; T. YAMAMOTO. *Kumamoto Univ., Kumamoto Univ.*

8:00 GG27 **337.13** ● Extremely low frequency magnetic field exposure influences descending pain modulation system in spinal cord injured rats. S. AMBALAYAM*; S. JAIN; R. MATHUR. *All India Inst. of Med. Sci.*

9:00 GG28 **337.14** Different sensitivity to orexins on two forms of immobility response and on its analgesic capability in rat. A. M. PÁEZ*; J. PACHECO-ROSADO; P. VAZQUEZ-LEÓN; L. MARTÍNEZ-MOTA. *Azcapotzalco, Inst. Politécnico Nacional, Inst. Nacional de Psiquiatría "Ramón de la Fuente Muñiz".*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 GG29 **337.15** Microinjection of 26RFa, an endogeniou ligand for GPR103, into rostral ventromedial medulla (RVM) produces an analgesic effect in the rat formalin test. M. ARAKI*; T. NONAKA; T. YAMADA; T. YAMAMOTO. *Kumamoto Univ.*

11:00 GG30 **337.16** Cerebellar transcranial direct current stimulation (c-tDCS) modulates experimental pain thresholds. A. G. WITNEY*; M. WONG; E. ALHASHEMI; V. RODRIGUES; C. DRAKEFORD. *TCD, TCD.*

8:00 GG31 **337.17** Chronic inflammatory pain increases the extrasynaptic GABAA current in ventrolateral periaqueductal gray area neurons. K. J. TONSFELDT*; K. L. SUCHLAND; M. LI; S. L. INGRAM. *Oregon Hlth. & Sci. Univ.*

9:00 GG32 **337.18** Nicotinic receptor excitation of descending pain modulatory pathways. I. C. UMANA*; V. T. WAN; C. A. DANIELE; D. S. MCGEHEE. *Univ. of Chicago MSTP, Univ. of Chicago, Univ. of Chicago.*

10:00 GG33 **337.19** ● Histamine in the locus coeruleus promotes descending noradrenergic inhibition of neuropathic hypersensitivity. H. WEI*; C. JIN; H. VIISANEN; H. YOU; A. PERTOVAARA. *Helsinki Univ., Xi'an Jiaotong Univ.*

11:00 GG34 **337.20** Periaqueductal gray toll-like receptor 4 modulates morphine tolerance via soluble tumor necrosis factor α signaling in the male rat. L. N. EIDSON; M. G. TANSEY; A. Z. MURPHY*. *Georgia State Univ., Emory Univ.*

POSTER

338. Musculoskeletal Pain

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 GG35 **338.01** Neurons in the lateral reticular formation encode generalized body pain. M. ARIEL*; W. PANNETON. *St. Louis Univ. Sch. of Med.*

9:00 GG36 **338.02** Assessing the perception of trunk movements in military subjects with chronic non-specific low back pain using a virtual mirror. M. ROOSINK*; N. ROBITAILLE; B. J. MCFADYEN; L. HÉBERT; P. L. JACKSON; L. J. BOUYER; J. LAROCHELLE; C. MERCIER. *CIRRIS, CIRRIS - Ctr. Interdisciplinaire de Recherche en Réadaptation et Intégration Sociale, Laval Univ., Canadian Forces Hlth. Services Group Headquarters, Laval Univ., Laval Univ.*

10:00 HH1 **338.03** Novel adaptations in motor cortical maps in persistent elbow pain. P. W. HODGES*; S. SCHABRUN; B. VICENZINO; E. JONES; L. CHIPCHASE. *Univ. Queensland, Univ. of Western Sydney, The Univ. of Queensland.*

11:00 HH2 **338.04** ● Motor cortex adaptation in the transition from acute to maintained muscle pain. S. M. SCHABRUN*; S. CHRISTENSEN; N. MRACHACZ-KERSTING; T. GRAVEN-NIELSEN. *The Univ. of Western Sydney, Aalborg Univ.*

8:00 HH3 **338.05** Manual versus automated volumetric and cross-sectional area measures of the oropharynx in chronic whiplash: An exercise in edge-detection and pattern-recognition training. K. MENDOZA*; T. PARRISH; J. ELLIOTT. *Northwestern Univ.*

9:00 HH4 **338.06** Activation of neurons in the lateral reticular formation by muscle algesics: Brainstem locus of the paleo-spinoreticulothalamic tract. W. PANNETON*; Q. GAN; M. ARIEL. *St Louis Univ.*

10:00 HH5 **338.07** The ADP-responsive P2Y1 receptor modulates phenotypic changes in muscle afferents during chronic ischemic injury. L. F. QUEME COBAR*; J. L. ROSS; R. C. HUDGINS; M. P. JANKOWSKI. *Cincinnati Children's Hosp. Med. Ctr., Univ. of Cincinnati.*

11:00 HH6 **338.08** ▲ Analysis of mechanisms driving cancer-induced ongoing and breakthrough bone pain. I. PELLITIER; J. HAVELIN; I. IMBERT; B. REMENIUK; F. PORRECA; T. E. KING*. *Univ. of New England, Univ. of Arizona.*

8:00 HH7 **338.09** ▲ Forced exercise alleviates evoked and ongoing pain in a model of advanced, nsaid-resistant osteoarthritis. I. IMBERT*; J. ALLEN; J. HAVELIN; F. PORRECA; T. KING. *Univ. of New England, Univ. of Arizona.*

9:00 HH8 **338.10** Activation of Group I metabotropic glutamate receptors leads to masseter mechanical hypersensitivity through PKC-mediated phosphorylation of TRPV1. J. Y. RO*; M. CHUNG; J. LEE; J. JOSEPH; J. L. SALOMAN. *Univ. of Maryland Dent. Sch., Univ. of Pittsburgh.*

POSTER

339. Somatosensory Stimulus Response Features

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 HH9 **339.01** Behavioral implications of stimulus-specific adaptation in rodent somatosensory cortex. S. MUSALL*; M. DURMAZ; B. WEBER; F. HELMCHEN; W. VON DER BEHRENS. *Brain Res. Inst., Inst. of Pharmacol. and Toxicology, Inst. of Neuroinformatics, Brain Res. Inst.*

9:00 HH10 **339.02** Functional reorganization of long-range projection neurons in mouse barrel cortex during task learning. J. L. CHEN*; D. J. MARGOLIS; A. STANKOV; L. SUMANOVSKI; B. L. SCHNEIDER; F. HELMCHEN. *Brain Res. Institute-Uzh, Rutgers Univ., ETH Zurich, EPFL.*

10:00 HH11 **339.03** Studying discrimination behavioral tasks in the rat whisker system. J. WIMMER DEL SOLAR; D. ROJAS-LIBANO*; P. E. MALDONADO. *Univ. de Chile.*

11:00 HH12 **339.04** Spike timing variability of optogenetically and mechanically evoked responses from mechanosensory afferents in transgenic mice. Y. BABA*; S. MAKSIMOVIC; E. A. LUMPKIN. *Columbia Univ. Med. Ctr.*

8:00 HH13 **339.05** Light touch: Optogenetic activation of tyrosine hydroxylase-expressing C-fiber mechanoreceptors. K. E. WATKINS*; S. HOCHMAN. *Emory Univ.*

9:00 HH14 **339.06** Using maximally informative dimensions to zero in on the receptive field properties of proprioceptive neurons in primary somatosensory cortex. G. TABOT*; A. RAJAN; N. HATSOPOULOS; S. BENSMAIA. *Univ. of Chicago, Univ. of Chicago.*

10:00 HH15 **339.07** Integration of cutaneous submodalities in primate somatosensory cortex. H. P. SAAL*; M. A. HARVEY; S. J. BENSMAIA. *Univ. of Chicago.*

11:00 HH16 **339.08** Dynamic changes in receptive field properties in primate primary somatosensory (area 3b). N. TRZCINSKI*; S. S. HSIAO. *The Zanvyl Krieger Mind/Brain Institute, Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 HH17 **339.09** A chronic neural interface to the macaque dorsal column nuclei. A. G. RICHARDSON*; P. K. WEIGAND; S. SRITHARAN; T. H. LUCAS. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

9:00 HH18 **339.10** Acute somatosensory recording in rhesus macaque dorsal root ganglion. D. ZHANG; T. W. SIMPSON; L. E. FISHER; D. M. RAGER; B. D. BOLINGER; A. S. KANTER; R. A. GAUNT*; D. J. WEBER. *Univ. of Pittsburgh, Univ. of Pittsburgh, Carnegie Mellow Univ., Univ. of Pittsburgh, Univ. of Pittsburgh.*

10:00 HH19 **339.11** Modulating receptive fields and stimulus intensity in lower limb stimulation can improve the somatotopic map of the cortical sensory representation, an fMRI study. E. PASAYE; Y. RAMIREZ-GARZON; F. A. BARRIOS*. *Univ. Nacional Autonoma De Mexico.*

11:00 HH20 **339.12** Preliminary model of electrically-driven neural activation in a sensory regenerative peripheral nerve interface. X. ZHENG*; C. A. CHESTEK; S. L. WOO; M. G. URBANCHEK; P. S. CEDERNA; N. B. LANGHALS. *Univ. of Michigan- Ann Arbor.*

8:00 HH21 **339.13** Each transient receptor potential channel has characteristic patterns within its action potential firing. K. CHO; J. JANG; J. CHOI; S. JUNG*; D. JANG. *Dept. of Biomed. engineering, Hanyang Univ., Seoul national university, Hanyang Univ. Med. Sch.*

9:00 HH22 **339.14** Perceived pleasantness of social touch reflects the anatomical distribution and velocity tuning of C-tactile afferents: An affective homunculus. S. C. WALKER*; F. P. MCGLONE. *Liverpool John Moores Univ.*

10:00 HH23 **339.15** Evans blue dots have similar characteristics as traditional acupoints: Using a rat model of immobilization stress-induced hypertension. D. KIM; S. CHANG; S. BANG; Y. RYU; Y. GWAK; B. LEE; H. CHO; C. YANG; H. KIM*. *Daegu Haany Univ., Korea Inst. of Oriental Med., Husson Univ.*

11:00 HH24 **339.16** Mediation of dorsal column pathway in acupuncture inhibition of cocaine-induced locomotor activity. C. YANG*; S. CHANG; J. LEE; S. KIM; N. KIM; H. HAN; Y. GWAK; S. KIM; H. KIM. *Daegu Haany Univ.*

POSTER

340. Somatosensory: Functional Studies

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 HH25 **340.01** Selection of active sensing strategies by mice during tactile search. J. B. SCHROEDER*; J. T. RITT. *Boston Univ.*

9:00 HH26 **340.02** An investigation into the relationship between autistic traits and affective touch. F. P. MCGLONE*; S. WALKER; R. PAWLING. *Liverpool John Moores Univ.*

10:00 HH27 **340.03** Affective touch processing in infancy: A fNIRS study. E. JÖNSSON*; I. NISSILÄ; K. KOTILAHTI; I. CROY; H. KARLSSON; L. KARLSSON; H. OLAUSSON; H. BACKLUND WASLING. *Univ. of Gotheburg, Aalto Univ., Univ. of Turku, Linköping Univ.*

11:00 HH28 **340.04** Effects of postural configuration on tactile perception tasks in older adults. H. HIBINO*; S. H. BROWN; M. H. HUANG. *Sch. of Kinesiology, Univ. of Michigan, Physical Therapy Department, Univ. of Michigan - Flint.*

8:00 HH29 **340.05** A novel object-floor recognition task for testing tactile memory with somatomotor integration in mice. D. MIYAMOTO*; A. INUTSUKA; A. KAMOSHIDA; N. MATSUKI; A. YAMANAKA; M. MURAYAMA. *Behav. Neurophysiol. Lab., RIKEN Brain Sci. Inst.,, Nagoya Univ., the Univ. of Tokyo, Japan Society for the Promotion of Sci.*

9:00 HH30 **340.06** Sildenafil ameliorates advanced peripheral neuropathy in type II diabetic mice. A. SZALAD*; Z. ZHANG; M. CHOPP; L. JIA; X. LU; L. WANG. *Henry Ford Hosp.*

10:00 HH31 **340.07** Motor learning is enhanced by augmenting proprioception through vibro-tactile feedback during robot-assisted proprioceptive training. A. CUPPONE*; V. SQUERI; M. SEMPRINI; J. KONCZAK. *Inst. Italiano Di Tecnologia, Univ. of Minnesota.*

11:00 HH32 **340.08** Maturation of tactile acuity in typically developing children. M. A. EIDY; P. M. MARKEN; P. ALBERT; W. S. SCHERMER; M. A. BURATOVICH; S. H. BROWN*. *Univ. of Michigan, Spring Arbor Univ.*

8:00 II1 **340.09** Perceiving the total shock: Somatosensory summing of two discrepant stimuli. L. D. WALSH*; J. CRITCHLOW; P. HAGGARD. *Neurosci. Res. Australia, Univ. of New South Wales, Univ. Col. London, Inst. of Cognitive Neurosci.*

9:00 II2 **340.10** The role of interoception triggered by bodily attention in acupuncture stimulation. W. JUNG*; I. LEE; C. WALLRAVEN; Y. CHAE. *AMSRC / Kyunghee Univ., Dept. of Brain and Cognitive Engin.*

10:00 II3 **340.11** Proprioceptive input of hand conformation is a constraint of multi-digit motion processing. Y. YANG*; T. CHANG; H. LAI; Y. PEI. *Chang Gung Mem. Hosp. At Linkou, Chang Gung Univ.*

11:00 II4 **340.12** MRI-compatible multi-channel microelectrode array for deep brain stimulation. Y. KAO*; H. LAI; Y. CHEN; D. ALBAUGH; Y. SHIH. *Univ. of North Carolina At Chapel Hill, Natl. Yang-Ming Univ.*

8:00 II5 **340.13** Assessing proprioceptive acuity of the wrist joint using a haptic robotic device. N. ELANGOVAN*; L. CAPPELLO; S. CONTU; S. KHOSRAVANI; L. MASIA; J. KONCZAK. *Univ. of Minnesota, Italian Inst. of Technol., Nanyang Technological Univ., Nanyang Technological Univ.*

9:00 II6 **340.14** Downshift of peak frequency in sensorimotor system under the optogenetic stimulation of primary somatosensory cortex evidenced by EEG and behavioral responses. D. LEE*; B. KWON; E. HWANG; B. KIM; S. LEE; J. CHOI. *Korea Inst. of Sci. and Technol., Pohang Univ. of Sci. and Technol., Univ. of Sci. and Technol.*

10:00 II7 **340.15** Comparative study of intrinsic functional connectivity within the spinal cords of monkeys and humans assessed by rsfMRI. J. C. GORE*; A. MISHRA; R. L. BARRY; F. WANG; S. A. SMITH; A. N. DULA; L. CHEN. *Vanderbilt Univ., Vanderbilt Univ. Inst. of Imaging Sci.*

11:00 II8 **340.16** Effects of age and expertise on tactile learning in humans. E. REUTER*; C. VOELCKER-REHAGE; S. VIELUF; B. GODDE. *Univ. of Rostock, Jacobs Univ. Bremen, Aix-Marseille Univ.*

8:00 II9 **340.17** The development of proprioceptive acuity and its susceptibility to muscle vibration in children. I. YEH*; J. M. HOLST-WOLF; J. KONCZAK. *Univ. of Minnesota.*

9:00 II10 **340.18** Pupil dynamics during a perceptual decision making task in mice. C. R. LEE*; D. J. MARGOLIS. *Rutgers, The State Univ. of New Jersey.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

341. Cerebellum: Plasticity and Climbing Fibers

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 II11 **341.01** ▲ Modulation of complex spike waveform by synchrony levels in the olivocerebellar system. T. TANG*; C. Y. SUH; J. XIAO; Y. KOTSUROVSKYY; T. A. BLENKINSOP; S. P. MARSHALL; I. SUGIHARA; E. J. LANG. *New York University, Sch. of Med., Tokyo Med. and Dent. Univ.*

9:00 II12 **341.02** Distinct patterns of Purkinje cell spontaneous activity in positive and negative zebrin bands. J. XIAO; N. L. CERMINARA; H. AOKI; A. BURROUGHS; Y. KOTSUROVSKYY; A. K. WISE; S. P. MARSHALL; I. SUGIHARA; R. APPS; E. J. LANG*. *New York Univ. Sch. of Med., Univ. of Bristol, Tokyo Med. and Dent. Univ., The Bionics Inst.*

10:00 II13 **341.03** Intracellular recordings from cerebellar neurons in larval zebrafish during fictive swimming and associative learning. T. C. HARMON*; U. MAGARAM; D. L. MCLEAN; I. M. RAMAN. *Northwestern Univ., Northwestern Univ., Northwestern Univ.*

11:00 II14 **341.04** Overlapping representations of sensory events and locomotion in cerebellar granule cell populations from awake mice. A. M. BADURA*; A. GIOVANNUCCI; B. DEVERETT; S. S. WANG. *Princeton Univ., Rutgers Robert Wood Johnson Med. Sch.*

8:00 II15 **341.05** Trial-by-trial shifts in the state of the mossy fiber pathway during cerebellar learning. A. GIOVANNUCCI*; F. NAJAFI; I. OZDEN; A. BADURA; B. DEVERETT; J. F. MEDINA; S. S. WANG. *Princeton Univ., Princeton Univ., Univ. of Pennsylvania, Brown Univ., Princeton Univ., Rutgers Univ., Univ. of Pennsylvania.*

9:00 II16 **341.06** Coactivation of presynaptic GABAA and GABAB receptors on cerebellar parallel fibers has a biphasic effect on synaptic transmission. J. R. PUGH*. *UTHSCSA.*

10:00 II17 **341.07** A step-wise Bayes to estimate the gap-junctional and inhibitory conductance of Inferior olive neurons from spike trains. H. T. HOANG*; I. TOKUDA; O. YAMASHITA; M. SATO; M. KAWATO; K. TOYAMA. *Ritsumeikan Univ., Advanced Telecommunications Res.*

11:00 II18 **341.08** Inferior olivary neurons drive golgi cell-to-golgi cell inhibition. P. J. MATHEWS*; K. LEE; T. OTIS. *UCLA.*

8:00 II19 **341.09** A simulation of cerebellar function with learning at parallel fiber - molecular layer interneurons. W. C. LENNON*, JR; R. HECHT-NIELSEN; T. YAMAZAKI. *Univ. of California, Univ. of Electro-communications.*

9:00 II20 **341.10** Predictive eye movements acquired by repetitive periodic optokinetic visual stimulation in goldfish. S. MIKI; R. G. BAKER; Y. HIRATA*. *Chubu Univ. Grad. Sch. of Engin., New York Langone Med. Ctr., Chubu Univ. Col. of Engin.*

10:00 II21 **341.11** Induction of sensory-evoked forelimb movements by optogenetic manipulation in cerebellum. T. S. OTIS*; K. LEE; P. J. MATHEWS; A. M. REEVES; K. Y. CHOE; R. SERRANO. *UCLA Dept. of Neurobio., UCLA, UCLA.*

11:00 II22 **341.12** Searching for ER receptor for myosin Va in cerebellar Purkinje neurons. C. J. ALEXANDER*; W. WAGNER; J. CHEN; J. A. HAMMER, III. *NHLBI, NIH, Ctr. for Mol. Neurobio., Univ. of California, San Diego.*

8:00 II23 **341.13** Synchrony of learning-related activity in Purkinje cells is facilitated by basket cells during delay eyelid conditioning. H. E. HALVERSON*; A. KHILKEVICH; M. D. MAUK. *Univ. of Texas At Austin, The Univ. of Texas at Austin.*

POSTER

342. Basal Ganglia: Cellular Physiology

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 II24 **342.01** Neural responses in striatum related to cost and outcome can drive unsupervised learning in the macaque. T. M. DESROCHERS*; K. AMEMORI; A. M. GRAYBIEL. *Brown Univ., MIT.*

9:00 II25 **342.02** Regulation of NMDA receptor activation and kinetics by glycine underlies burst production in midbrain dopaminergic neurons. G. M. BEAUDOIN*, III; J. A. GOMEZ; A. K. PETKO; C. A. PALADINI. *Univ. of Texas San Antonio.*

10:00 II26 **342.03** The RGK protein, Rem2, is enriched in nuclei of the basal ganglia. D. J. LIPUT*; M. I. DAVIS; S. R. IKEDA. *NIH/NIAAA, NIH/NIAAA.*

11:00 II27 **342.04** Background firing rate controls dendritic excitability through tight electrotonic coupling of the soma and dendrites in substantia nigra dopamine neurons. T. HAGE*; Z. M. KHALIQ. *NINDS/NIH.*

8:00 II28 **342.05** ▲ Optogenetic stimulation of specific excitatory afferents to dopaminergic neurons induces conditioned place preference. M. AUMANN*; A. K. PETKO; A. L. SHARPE; M. J. BECKSTEAD; C. A. PALADINI. *The Univ. of Texas At San Antonio, The Univ. of Texas At San Antonio, The Univ. of the Incarnate Word, The Univ. of Texas Hlth. Sci. Ctr. San Antonio, Univ. of Texas at San Antonio.*

9:00 II29 **342.06** Near-threshold resonance and oscillation properties of the striatal LTS interneuron. S. C. SONG*; J. A. BEATTY; C. J. WILSON. *Univ. of Texas At San Antonio, Michigan State Univ.*

10:00 II30 **342.07** Pre- and post-synaptic function of two excitatory inputs to dopaminergic neurons express selective modulation by cocaine. C. A. PALADINI*; G. M. BEAUDOIN, III; J. BLAND; J. A. GOMEZ; A. K. PETKO. *UTSA, Univ. of Texas at San Antonio.*

11:00 JJ1 **342.08** Neostriatal GABAergic interneurons targeted in Htr3a-Cre transgenic mice contribute to disynaptic inhibition of spiny projection neurons by cholinergic interneurons. T. W. FAUST*; M. ASSOUS; H. XENIAS; J. M. TEPPER; T. KOÓS. *Rutgers the State Univ. of New Jersey, Newark Campus.*

8:00 JJ2 **342.09** Electrophysiological properties and cholinergic inputs to 5-Htr3a expressing interneurons in the mouse striatum. M. ASSOUS*; T. W. FAUST; T. KOOS; J. M. TEPPER. *CMBN, Rutgers Univ.*

9:00 JJ3 **342.10** Activation of AMPA/Kainate receptors regulates NMDA receptor dependent burst firing of dopaminergic neurons via activation of glycine release from astrocytes. J. A. GOMEZ*; G. M. BEAUDOIN, III; A. K. PETKO; C. A. PALADINI. *The Univ. of Texas At San Antonio.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 JJ4 **342.11** Heterosynaptic LTP of GABAergic inputs enhances pausing in dopamine neurons. D. SIMMONS*; A. K. PETKO; C. PALADINI. *Univ. of Texas At San Antonio, Univ. of Texas at San Antonio, Univ. of Texas At San Antonio.*

11:00 JJ5 **342.12** Distinct properties of mouse pallidal neuron classes. V. M. HERNANDEZ*; D. J. HEGEMAN; D. A. KELVER; M. P. FISKE; Q. CUI; K. E. GLAJCH; T. Y. HUANG; N. J. JUSTICE; C. CHAN. *Northwestern Univ., The Univ. of Texas.*

8:00 JJ6 **342.13** Oscillation in ATP drives one type of bursting in a model of a midbrain dopamine neuron. C. C. CANAVIER*; N. YU. *Louisiana State Univ. Hlth. Sci. Ctr.*

9:00 JJ7 **342.14** Synchronised excitatory inputs may entrain the pause response of tonically active neurons in the striatum. Y. ZHANG; S. J. CRAGG*; M. J. OSWALD; J. N. J. REYNOLDS. *Univ. of Oxford, Univ. of Otago.*

10:00 JJ8 **342.15** Burst clamp: Modulation of dopamine cell burst firing by afferent control using rtxi and optogenetics *in vivo.* A. K. PETKO*; G. M. BEAUDOIN, III; C. A. PALADINI. *Univ. of Texas San Antonio, Univ. of Texas at San Antonio.*

11:00 JJ9 **342.16** Metabotropic glutamate receptor dependent slow calcium oscillations were observed in the medium spiny projection neurons of striatum. A. TAMURA*; S. KIKUTA; N. HOMMA; K. KOBAYASHI; M. OSANAI. *Tohoku Univ. Grad. Sch. of Med., Inst. of Biomed. Sciences, Fukushima Med. Univ. Sch. of Med.*

8:00 JJ10 **342.17** Basal ganglia output signaling via distinct classes of substantia nigra neurons. L. E. MCELVAIN*; R. M. COSTA. *Champalimaud Ctr. For the Unknown.*

POSTER

343. Finger and Grasp Control: Normal Human Behavior

Theme D: Sensory and Motor Systems

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 JJ11 **343.01** Performance-stabilizing synergies in motor tasks involving two actors. S. SOLNIK*; S. AMBIKE; Y. WU; S. RESCHECHTKO; M. L. LATASH. *Pennsylvania State Univ.*

9:00 JJ12 **343.02** Digit speed during grasping is modulated by prior digit contacts. L. F. SCHETTINO*; L. SANCHEZ. *Lafayette Col., Lafayette Col.*

10:00 JJ13 **343.03** A study of natural hand movement sequences. M. FLANDERS*. *Univ. Minnesota.*

11:00 JJ14 **343.04** Kinematic similarity in writing movements affects the occurrence of slips of the pen. C. YAMADA*; Y. ITAGUCHI; K. FUKUZAWA. *Waseda Univ.*

8:00 JJ15 **343.05** Influence of musical training on neuromuscular coarticulation during sequential finger movements. S. A. WINGES*. *Louisiana State Univ.*

9:00 JJ16 **343.06** Finger individuation at the motor learning level. M. I. FALCON*; J. B. ROWE; E. WOLBRECHT; A. SOLODKIN; D. J. REINKENSMEYER. *Univ. of California Irvine, Univ. of Idaho.*

10:00 JJ17 **343.07** Dragged into the future: Frictional information obtained by sliding an object increases weight prediction abilities in a novel lifting task. K. FERCHO*; L. A. BAUGH. *Univ. of South Dakota.*

11:00 JJ18 **343.08** Subcortical control of human precision grip. K. L. BUNDAY; T. TAZOE; J. C. ROTHWELL; J. LONG*; M. A. PEREZ. *Univ. of Pittsburgh, Univ. Col. London.*

8:00 JJ19 **343.09** Reconstruction of hand and grip referent trajectories during vertical oscillation of a hand-held object. S. AMBIKE; T. ZHOU; M. L. LATASH*. *Pennsylvania State Univ.*

9:00 JJ20 **343.10** Motor equivalence in actions by redundant motor systems. D. J. MATTOS*; S. RESCHECHTKO; T. ZHOU; V. M. ZATSIORSKY; M. L. LATASH. *Biomechanics and Movement Sci., Pennsylvania State Univ.*

10:00 JJ21 **343.11** Haptic-motor integration for control of digit position in grasping and manipulation. D. SHIBATA*; M. SANTELLO. *Arizona State Univ.*

11:00 JJ22 **343.12** Human operator characteristics in microgravity: Influence of stress, mood and motivation in a realistic working scenario. F. STEINBERG*; M. DALECKI; M. KALICINSKI; O. BOCK. *Inst. of Sport Science, Johannes Gutenberg Uni, York Univ., German Sport Univ. Cologne.*

8:00 JJ23 **343.13** Violations of equifinality under transient perturbations: The back-coupling hypothesis. S. RESCHECHTKO; A. SATYAJIT; M. QIAO*; S. SOLNIK; T. ZHOU; M. L. LATASH. *Pennsylvania State Univ.*

9:00 JJ24 **343.14** Evaluation of fine motor performance in elite musicians. S. L. GORNIAK*; F. BROOKS; K. GOLDIE-STAINES; E. COLLINS. *Univ. of Houston, Houston Methodist.*

10:00 JJ25 **343.15** Cognitive attribution of the source of an error in object lifting results in differences in motor generalization. L. A. BAUGH*; K. FERCHO. *Univ. of South Dakota.*

11:00 JJ26 **343.16** Grip configuration- and aperture-dependent modulation of corticospinal drive in human. M. A. PEREZ*; T. TAZOE. *Univ. of Pittsburgh.*

8:00 JJ27 **343.17** Training effects of tool-use grasping. Y. ITAGUCHI*; K. FUKUZAWA. *Waseda University, Psychology Dept.*

9:00 JJ28 **343.18** Sustained torque exertion interferes with subsequent object manipulation performed by the same hand. Q. FU*; M. SANTELLO. *Arizona State Univ., Arizona State Univ.*

10:00 JJ29 **343.19** Mirror motor activity and its relation to white matter structure in the posterior midbody of the corpus callosum. B. S. SEHM*; C. STEELE; A. VILLRINGER; P. RAGERT. *Max Planck Inst. For Human Cognitive and Brain Sci.*

11:00 JJ30 **343.20** Hand dominance affects on the control of digit forces for dexterous manipulation. S. REZVANIAN*; K. MOJTAHEDI; M. SANTELLO. *Arizona State Univ.*

POSTER

344. Parental Behavior

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 JJ31 **344.01** Neural correlates of feeding and reproduction in the African cichlid, Astatotilapia burtoni. D. T. PORTER*; K. P. MARUSKA. *Lousiana State Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 JJ32 **344.02** Central monoaminergic distinction between male behavioral modes in a paternal frog. G. R. TEN EYCK*; E. M. REGEN; W. J. KORZAN; M. J. CALIBUSO-SALAZAR; J. D. VONNAHME; C. H. SUMMERS. *Univ. of Hawaii, Univ. of Michigan, Boston Univ., Univ. of Hawaii at Hilo, Univ. of South Dakota.*

10:00 JJ33 **344.03** Nest building in zebra finches: A role for nonapeptides. S. L. MEDDLE*; Z. J. HALL; S. D. HEALY. *The Roslin Institute, The Univ. of Edinburgh, The Univ. of St Andrews, The Univ. of St Andrews.*

11:00 JJ34 **344.04** The role of CRF-R2 in alloparental care in Mongolian gerbils. M. C. HUFFMAN*; A. K. BIRNIE; J. A. FRENCH. *Univ. of Nebraska At Omaha.*

8:00 JJ35 **344.05** Neuropeptide Y signaling in the dorsal raphe nucleus mediates fasting-induced inhibition of maternal behavior. Y. MUROI*; T. ISHII. *Obihiro Univ. of Agri and Vet Medinine.*

9:00 JJ36 **344.06** Evaluation between hunting and maternal behavior in the high-yawning rats are good hunters and the low-yawning display an adequate maternal care due to genetic characteristics. M. CORTES*; A. COYOTL; A. UGARTE; J. R. EGUIBAR. *Benemérita Univ. Autónoma De Puebla, Inst. of Physiol.*

10:00 KK1 **344.07** Cross-fostering reveals offspring influence on maternal behavior in high-yawning (HY) subline of Sprague-Dawley rats. C. URIBE*; M. CORTES; A. UGARTE; J. EGUIBAR. *Inst. De Fisiología BUAP.*

11:00 KK2 **344.08** Peripartum neurogenesis in forebrain oxytocin receptor knockout mice. T. V. MILLER*; H. K. CALDWELL. *Sch. of Biomed. Sci. Kent State Universit, Dept. of Biol. Sciences, Kent State Universit.*

8:00 KK3 **344.09** Vasopressin V1b receptors are differentially expressed in brain regions mediating maternal behavior - influence on maternal behavior in lactating rats. D. S. BAYERL; S. M. KLAMPFL; O. J. BOSCH*. *Univ. of Regensburg, Univ. of Regensburg.*

9:00 KK4 **344.10** Distal exposure to pups reduces startle response without altering prepulse inhibition in postpartum rats. M. ZHANG*; M. LI. *Univ. of Nebraska, Lincoln, Univ. of Nebraska, Lincoln.*

10:00 KK5 **344.11** ▲ Estrogen- and maternal experience-dependent Fos expression in the locus coeruleus in adult female mice following playback of pup calls. A. A. GUMASTE; K. N. SHEPARD; A. WHYTE; R. C. LIU*. *Emory Univ., Emory Univ.*

11:00 KK6 **344.12** Association between brain delta FosB protein expression and maternal experience in female rats. C. M. RAGAN*; M. A. HOLSCHBACH; J. S. LONSTEIN. *Michigan State Univ.*

8:00 KK7 **344.13** Maternal and litter factors interact to influence postpartum caregiving, anxiety, and midbrain tryptophan hydroxylase 2 expression. J. S. LONSTEIN*; M. A. HOLSCHBACH; Z. A. GRIEB. *Michigan State Univ., Michigan State Univ.*

9:00 KK8 **344.14** What the mother does at night tells us about her self-stress regulation. J. F. L. PINNER; S. M. DINCES; R. D. ROMEO; B. S. MCEWEN; A. C. TANG*. *Univ. of New Mexico, Barnard Col., Rockefeller Univ., Natl. Sci. Fndn., Univ. of New Mexico.*

10:00 KK9 **344.15** ▲ Early life environmental enrichment affects maternal care and offspring social behavior following neonatal inflammation. M. MACRAE; S. PILLSBURY; E. J. CONNORS; T. MACRINA; S. SOVALSKA; M. M. MIGLIORE; A. C. KENTNER*. *Massachusetts Col. of Pharm. & Hlth. Sci., Massachusetts Col. of Pharm. & Hlth. Sci.*

11:00 KK10 **344.16** Paternal retrievals increase testosterone levels in both male and female offspring. E. A. BECKER*; M. C. CHARY; J. P. CRUZ; M. BARDI. *St. Joseph's Univ., Randolph Macon Col.*

8:00 KK11 **344.17** Paternal deprivation differentially alters hippocampus-dependent behaviors of California mouse (Peromyscus californicus) offspring in a sex-dependent manner. E. R. GLASPER*; M. M. HYER. *Univ. of Maryland.*

9:00 KK12 **344.18** Reduced offspring interaction contributes to deficits in hippocampal neuroplasticity in paternal California mice (Peromyscus californicus). M. M. HYER*; J. KATAKAM; E. R. GLASPER. *Univ. of Maryland.*

10:00 KK13 **344.19** The electrophysiological analysis of the posterior division of the bed nucleus of stria terminalis in father mice. T. AMANO*; Y. TSUNEOKA; S. SHINDO; C. YOSHIHARA; K. O. KURODA. *RIKEN Brain Sci. Inst. - Wako, Toho Univ. Sch. of Med.*

11:00 KK14 **344.20** Neuropeptide manipulation modulates responses to infant stimuli in marmosets (Callithrix jacchus). J. H. TAYLOR*; J. A. FRENCH. *Univ. of Nebraska - Omaha, Univ. of Nebraska - Omaha.*

8:00 KK15 **344.21** High quality parental care during childhood reduces drugs consumption risk in the adulthood. J. I. LÓPEZ*; M. MÉNDEZ-DÍAZ; O. PROSPÉRO-GARCÍA; A. RUIZ-CONTRERAS. *UNAM, UNAM.*

POSTER

345. Stress: Neuroimmune Aspects

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 KK16 **345.01** Interleukin-1β level in brain structures regulating HPA axis response to stress is affected by subdiaphragmatic vagotomy. P. RACHWALSKA*; A. GADEK-MICHALSKA; J. TADEUSZ; A. J. BUGAJSKI. *Inst. of Pharmacol. PAS, Jagiellonian Univ. Med. Col.*

9:00 KK17 **345.02** The endogenous danger signal high mobility group box-1 (HMGB1) sensitizes microglia to pro-inflammatory stimuli: *In vitro* characterization of the disulfide and fully reduced forms. M. G. FRANK*; S. A. HERSHMAN; M. D. WEBER; L. R. WATKINS; S. F. MAIER. *Univ. of Colorado, Univ. of Colorado.*

10:00 KK18 **345.03** HMGB-1 mediates stress-induced sensitization of neuroinflammatory responses to subsequent immune challenge. M. D. WEBER*; M. G. FRANK; L. R. WATKINS; S. F. MAIER. *Univ. of Colorado Boulder.*

11:00 KK19 **345.04** Interactions of pro-oxidants and extracellular high mobility group box 1 (HMGB1) protein through Toll-like receptor 4-Nuclear factor kappa B coupled activation pathway. O. J. IGWE*; R. KARKI; Y. ZHANG. *Univ. Missouri- KC, Univ. of Missouri-KansasCity.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 KK20 **345.05** Habituation of pro-inflammatory and anti-inflammatory gene expression responses to repeated acute stress. C. MCINNIS*; M. THOMA; D. GIANFERANTE; L. HANLIN; X. CHEN; D. WANG; B. GROSS; N. ROHLEDER. *Brandeis Univ., USC.*

9:00 KK21 **345.06** ● Acute psychological stress-induced circulating and central cytokine production. H. A. VECCHIARELLI*; J. M. GRAY; K. I. HASSAN; C. P. GANDHI; M. MORENA; M. N. HILL. *Univ. of Calgary, Univ. of Calgary, Univ. of Calgary, Univ. of Calgary, Univ. of Calgary.*

10:00 KK22 **345.07** ● The impact of P2x7 antagonism on stress-induced alterations in social interaction. T. DEAK*; E. VARLINSKAYA; E. TRUXELL; D. LOVELOCK; A. GANO; A. BHATTACHARYA. *Binghamton University-Suny, Janssen Pharmaceuticals.*

11:00 KK23 **345.08** Parabrachial nucleus (PBn) PACAP projections to the lateral capsular division of the amygdala: Modulatory roles in the sensory and behavioral aspects of pain. G. MISSIG*; C. W. ROMAN; M. A. VIZZARD; K. M. BRAAS; S. E. HAMMACK; V. MAY. *Univ. of Vermont, Univ. of Washington, Univ. of Vermont.*

8:00 KK24 **345.09** Habituation of plasma corticosterone and neuroimmune alterations in response to repeated daily exposure to several distinct stress challenges in Sprague Dawley rats. D. LOVELOCK*; T. DOMERUS-FITZWATER; A. GANO; M. SAMMAKIA; T. DEAK. *Binghamton Univ.*

9:00 KK25 **345.10** Brain-immune-gut interactions in the development and symptomology of depression. I. MARIN*; A. GAULTIER; J. KIPNIS. *Univ. of Virginia.*

10:00 KK26 **345.11** ▲ The effects of ketanserin on chronic neuroinflammation, spatial memory and anxiety. A. CROCKETT*; H. M. D'ANGELO; S. C. HOPP; S. ROYER; L. ADZOVIC; G. L. WENK. *The Ohio State Univ.*

11:00 KK27 **345.12** The neuroinflammation changes in repeated stress-induced ovariectomized female rats. H. PARK*; H. SHIM; K. KIM; H. JOUNG; H. LEE; I. SHIM. *Kyung Hee Univ., Kyung Hee Univ., The Catholic Univ. of Korea.*

8:00 KK28 **345.13** Stress responsiveness after traumatic stress exposure is dependent upon CD4+ T cells. S. M. CLARK*; X. LI; C. SONG; L. H. TONELLI. *Univ. of Maryland Sch. of Med., Res. and Develop. Service, VA Maryland Hlth. Care Syst.*

9:00 KK29 **345.14** An investigation into the impact of pregnancy and stress on neuroimmune function: Are there potential links to postpartum depression? C. K. POSILLICO*; J. M. SCHWARZ. *Univ. of Delaware.*

10:00 KK30 **345.15** Minocycline attenuates stress-induced changes in anxiety-like behavior and monocyte trafficking to the brain, but not peripheral myelopoiesis or leukocyte redistribution. B. L. JARRETT*; J. GODBOUT; D. MCKIM; J. SHERIDAN. *Ohio State Univ., Ohio State Univ.*

11:00 KK31 **345.16** Cohabitation with a sick cage-mate induces changes in anxiety-like behavior in the Elevated Plus Maze. E. K. HAMASATO*; A. NASCIMENTO DE LIMA; J. PALERMO-NETO; T. DEAK. *Psychology Dept. Binghamton Univ., Univ. of Sao Paulo.*

8:00 KK32 **345.17** The inflammatory, metabolic, and behavioral profiles induced by a combined high-fat diet/predatory stress paradigm. M. BEKHBAT*; M. E. S. RODRIGUES; J. CHANG; C. J. BARNUM; M. G. TANSEY. *Emory Univ.*

9:00 LL1 **345.18** Antidepressant drugs as antibiotic agents. G. TORRES*; S. L. WIDMER; J. R. LEHESTE. *NYIT COM, NYIT COM.*

POSTER

346. Sex Differences in Stress Responses

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 LL2 **346.01** Glucocorticoid and mineralocorticoid receptor activation in response to acute and repeated restraint stress exposure in male and female rats. L. INNALA*; V. VIAU. *Univ. of British Columbia.*

9:00 LL3 **346.02** Orexins may contribute to sex differences in adaptation to stress. L. GRAFE*; S. LUZ; S. BHATNAGAR. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania Sch. of Med.*

10:00 LL4 **346.03** Acute stress selectively and rapidly induces per1 expression in the medial prefrontal cortex, suprachiasmatic nucleus, and paraventricular nucleus of male and female rats. L. E. CHUN*; S. MORTON; L. WOODRUFF; L. R. HINDS; R. L. SPENCER. *Univ. of Colorado Boulder.*

11:00 LL5 **346.04** Sex differences of intrinsic cellular properties in neuroendocrine CRH neurons. L. SENST; D. V. BAIMOUKHAMETOVA*; J. S. BAINS. *Univ. Calgary.*

8:00 LL6 **346.05** Sex differences in corticotropin-releasing factor modulated anxiety-related behaviors. D. A. BANGASSER*; H. SIMKO; B. WICKS; K. WIERSIELIS; S. KHANTSIS. *Temple Univ.*

9:00 LL7 **346.06** Role of crf in sexually dimorphic hypothalamic-pituitary-adrenal responses to alcohol. G. E. JOHNSON; K. BERNARD; D. SELVAGE*. *Univ. of New England.*

10:00 LL8 **346.07** Dynamic regulation of cytokines in the brain after acute inflammation. N. NEVÁREZ*; I. C. SPEIRS; I. OSBORN; P. GUISON; A. A. SCHMELING; E. J. DONZIS; N. C. TRONSON. *The Univ. of Michigan.*

11:00 LL9 **346.08** Sex-specific electrophysiological properties of basolateral amygdala neurons in cycling females and the impact of repeated restraint stress. S. R. BLUME*; J. A. ROSENKRANZ. *Rosalind Franklin Univ. of Med. and Sci.*

8:00 LL10 **346.09** Limbic neuropeptide y-1 receptors modulate vulnerability to social and metabolic challenges depending upon gender and maternal care. P. PALANZA*; R. PANELLI; L. GIOIOSA; S. PATERLINI; S. PARMIGIANI; P. MELE; A. LONGO; C. EVA. *Univ. of Parma, Univ. of Parma, Univ. of Parma, Univ. of Torino.*

9:00 LL11 **346.10** Longitudinal cognitive trajectories of older individuals varies by sex. A. C. MCCARREY; Y. AN; M. KITNER-TRIOLO; S. M. RESNICK*. *Natl. Inst. On Aging.*

10:00 LL12 **346.11** Influence of gonadal hormones on behavioral sensitivity to low-dose ketamine. S. K. SALAND*; K. J. SCHOEPFER; M. KABBAJ. *Florida State Univ.*

11:00 LL13 **346.12** Cortisol response to cold pressor stress varies during the follicular phase of the menstrual cycle depending on progesterone levels. A. E. YCAZA*; S. E. NIELSEN; M. MATHER. *USC, USC.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

347. Stress and Anxiety: Modulation

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 LL14 **347.01** Maternal antidepressant use alters hippocampal neurogenesis throughout development in male and female offspring. A. R. GOBINATH*; J. L. WORKMAN; C. CHOW; S. E. LIEBLICH; L. A. M. GALEA. *Univ. of British Columbia, The Univ. of British Columbia.*

9:00 LL15 **347.02** Effects of OCD treatments on RU24969-induced reductions of vertical rearing, digging, and grooming behaviors in C57BL/6J mice. E. V. HO*; S. L. THOMPSON; S. C. DULAWA. *Univ. of Chicago - Dulawa Lab.*

10:00 LL16 **347.03** Distinct effects of NMDAR and GSK3 inhibition on a 5-HT1B-induced mouse model of OCD-like behavior. S. THOMPSON*; S. DULAWA. *Univ. of Chicago.*

11:00 LL17 **347.04** Social enrichment affects and reverses changes of emotional state and HPA sensitivity induced by early postweaning social isolation. F. BIGGIO*; M. G. PISU; A. GARAU; G. BOERO; V. LOCCI; V. PIBIRI; M. C. MOSTALLINO; M. SERRA. *Univ. of Cagliari, Inst. of Neuroscience, Natl. Res. Council, Univ. of Sassari.*

8:00 LL18 **347.05** Anxiolytic effect of carvacrol in rats: Brain areas involved. F. S. POLLI*; J. N. GOMES; H. S. FERREIRA; J. B. *FREGONEZE. *Federal Univ. of Bahia, State Univ. of Bahia.*

9:00 LL19 **347.06** Paradoxical effects of glucocorticoids on fear memory in the single-prolonged stress model. S. M. KELLER*; W. SCHREIBER; D. KNOX. *The Univ. of Delaware.*

10:00 LL20 **347.07** Rescue of impaired fear extinction: Role of histone acetylation and dopaminergic signalling. V. MAURER*; N. WHITTLE; J. RAINER; T. VALOVKA; N. SINGEWALD. *Univ. of Innsbruck, Med. Univ. of Innsbruck, Med. Univ. of Innsbruck.*

11:00 LL21 **347.08** Tianeptine attenuated prenatal stress-induced changes in the brain mitochondria of adult male rats: A link to depression. K. GLOMBIK*; A. STACHOWICZ; R. OLSZANECKI; E. TROJAN; J. SLUSARCZYK; E. BATOR; A. BASTA-KAIM. *Inst. of Pharmacol. Polish Acad. of Scienc, Jagiellonian Univ. Med. Col.*

8:00 LL22 **347.09** Metergoline microinjection into the basolateral amygdala is sufficient to model panic disorder as evidenced by sodium lactate-induced tachycardia. D. R. SCHUWEILER*; J. L. BUTLER; B. A. HEIDENREICH. *Illinois State Univ., Illinois State Univ., Illinois State Univ.*

9:00 LL23 **347.10** Anxiogenic-like behavior conditioned by β-catenin expression in hippocampal progenitor cells. R. VIDAL; F. PILAR-CUÉLLAR; R. LINGE; A. MARTÍN; Á. DÍAZ; E. CASTRO; M. GÒTZ; Á. PAZOS; E. M. VALDIZAN*. *Inst. de Biomedicina y Biotecnología (IBBTEC) (UC-CSIC-IDICAN), Dept. de Fisiología y Farmacología, Univ. de Cantabria, CIBERSAM, Ciber de Salud Mental, Inst. Carlos III, Inst. of Stem Cell Research, German Res. Ctr. for Envrn. Health, Helmholtz Ctr. Munich, Physiological Genomics, Ludwig Maximilians Univ., Inst. De Biomedicina Y Biotecnologia IBBTEC (UC,CSIC,SODERCAN), CIBERSAM.*

10:00 LL24 **347.11** Sertraline (an SSRI antidepressant) during pregnancy in an animal model of maternal stress and depression: Effects on forced swim test behavior, maternal care, and neurogenesis levels in female dams. J. M. KOTT*; S. M. MOONEY-LEBER; F. A. SHOUBAH; J. M. YOUNG; S. BRUMMELTE. *Wayne State Univ.*

11:00 LL25 **347.12** Antidepressant-like effect of cocaine is associated with increased reward in male and female prenatally stressed rats. S. MACCARI*, Prof; M. REYNAERT; E. GATTA; J. MARROCCO; J. MAIRESSE; G. VAN CAMP; F. NICOLETTI; S. MORLEY-FLETCHER. *Univ. of Lille 1/ CNRS, LIA (International Associated Laboratory: Univ. of Lille1/CNRS, France; IRCCS Neuromed and Sapienza Univ. of Rome, Italy), IRCCS Ctr. Neurolesi "Bonino-Pulejo", Sapienza Univ. of Rome, IRCCS Neuromed.*

8:00 LL26 **347.13** Early carbetocin treatment prevents metabolic aging induced by early stress. E. GATTA*; J. MARROCCO; M. REYNAERT; L. DERUYTER; C. GUINEZ; T. LEFÈBVRE; S. MACCARI; F. NICOLETTI; J. MAIRESSE. *Univ. of Lille 1/CNRS, LIA (International Associated Laboratory: Univ. of Lille1/CNRS, France; IRCCS Neuromed and Sapienza Univ. of Rome, Italy), IRCCS Ctr. Neurolesi "Bonino-Pulejo", Sapienza Univ. of Rome, IRCCS Neuromed.*

9:00 LL27 **347.14** Effects of *in utero* antidepressant (sertraline) exposure on offspring outcome in an animal model of maternal stress and depression. S. M. MOONEY-LEBER; J. M. KOTT; F. A. SHOUBAH; S. BRUMMELTE*. *Wayne State Univ.*

10:00 LL28 **347.15** The effect of histone deacetylase inhibitors on the behavioral responses to social defeat in Syrian hamsters. K. E. MCCANN*; K. L. HUHMAN. *Georgia State Univ., Georgia State Univ.*

11:00 MM1 **347.16** Dopamine in the nucleus accumbens modulates the memory of social defeat in Syrian hamsters (Mesocricetus auratus). C. L. GRAY*; A. NORVELLE; T. LARKIN; K. L. HUHMAN. *Georgia State Univ.*

8:00 MM2 **347.17** ● Endocannabinoid modulation of predator stress-induced long term anxiety. J. LIM*; D. PIOMELLI. *Univ. of California, Irvine.*

9:00 MM3 **347.18** Interacting effects of maternal care and allopregnanolone on anxious behavior in the female rat. A. BORROW*; N. M. CAMERON. *Binghamton Univ.*

10:00 MM4 **347.19** ▲ Exposure to malnutrition in early pregnancy leads to hyperactivity in rat offspring. S. KANEKO*; T. HARASAWA; T. KONO; K. TOMOKO; K. HINO; Y. KUBO; A. TAKANO; Y. DAIGO; H. KOJIMA; H. SHIMADA; Y. ISHIGAKI; T. HATTA; S. TAKEUCHI; H. KANAI; I. TOOYAMA; N. YAMADA; J. UDAGAWA. *Shiga Univ. of Med. Sci., Shiga Univ. of Med. Sci., Shiga Univ. of Med. Sci., Kanazawa Med. Univ., Kanazawa Med. Univ., Shiga Univ. of Med. Sci., Shiga Univ. of Med. Sci.*

11:00 MM5 **347.20** Effect of enriched environment on experimental anxiety induced by progesterone withdrawal and the response of hypothalamic-pituitary-adrenal axis in female wistar kyoto rats. D. M. ISLAS*; P. DE GORTARI GALLARDO; C. LÓPEZ RUBALCAVA; E. ESTRADA CAMARENA. *Inst. Nacional De Psiquiatria, Ctr. de Investigación y Estudios Avanzados del Inst. Politécnico Nacional.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

348. Stress and Aversive States

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 MM6 **348.01** Free access to highly palatable food during adolescence improves the psycho-emotional disorders of female rats that experienced neonatal maternal separation. J. JAHNG*; J. KIM; J. KOO; J. LEE. *Seoul Natl. Univ. Sch. Dent., Dept. of Brain Science, DGIST.*

9:00 MM7 **348.02** A role for essential micronutrients in programming the lasting effects of chronic early-life stress? E. NANINCK*; K. YAM; L. HOEIJMAKERS; P. J. LUCASSEN; A. KOROSI. *Univ. of Amsterdam.*

10:00 MM8 **348.03** The role of fat metabolism and dietary long-chain polyunsaturated fatty acids in early-life stress induced cognitive impairments. A. KOROSI*; K. YAM; L. SCHIPPER; E. F. G. NANINCK; S. E. LA FLEUR; A. OOSTING; E. VAN DER BEEK; P. J. LUCASSEN. *Univ. of Amsterdam, Danone Nutritial Res., Academic Med. Ctr., Danone Nutritial Res.*

11:00 MM9 **348.04** Stress during the stress hyporesponsive period causes long-term emotional alterations in adolescent Wistar rats. C. E. GIRARDI*; N. C. ZANTA; D. SUCHECKI. *Univ. Fed. Sao Paulo.*

8:00 MM10 **348.05** The role of visceral insular cortex endocannabinoids in acute nausea-induced conditioned gaping in rats. M. A. STICHT*; C. L. LIMEBEER; R. A. ABDULLAH; J. L. POKLIS; A. H. LICHTMAN; L. A. PARKER. *Univ. of Guelph, Virgina Commonwealth Univ.*

9:00 MM11 **348.06** The 5-Htt genotype modulates effects of prenatal stress in female mice - towards molecular mechanism of resilience. K. SCHRAUT; N. LEIBOLD; M. T. WEIDNER; K. FÖRSTNER; N. EL HAJJ; G. ORTEGA; A. G. SCHMITT; D. L. VAN DEN HOVE*; K. LESCH. *Univ. Hosp. of Wuerzburg, Maastricht Univ., Univ. of Wuerzburg.*

10:00 MM12 **348.07** Memory molecules: The role of calcineurin in infantile amnesia. B. L. CALLAGHAN*; B. M. GRAHAM; R. RICHARDSON. *Univ. of New South Wales.*

11:00 MM13 **348.08** Variation in the oxytocin receptor gene moderates the protective effects of a family-based prevention program on telomere length. E. L. SMEARMAN*; G. H. BRODY. *Emory Univ., Univ. of Georgia.*

8:00 MM14 **348.09** ● Paradoxical sleep deprivation at the end pregnancy in rats: Effects on mother and fetuses. A. B. LUCION*; G. E. PARDO; J. G. FERRAZ; T. H. HENRIQUES; A. HOEFEL; L. R. KUCHARSKI; A. L. DE CASTRO. *Univ. Federal do Rio Grande Sul UFRGS.*

9:00 MM15 **348.10** Magnesium deficiency and anxiety related behavior in two substrains of C57BL/6 mice exposed to a conventional or reversed light-dark schedule. M. LABOTS*; X. ZHENG; G. MOATTARI; J. LOZEMAN-VAN 'T KLOOSTER; J. M. BAARS; P. HESSELING; M. LAVRIJSEN; S. KIRCHHOFF; F. OHL; H. A. VAN LITH. *Utrecht Univ., Brain Ctr. Rudolf Magnus.*

10:00 MM16 **348.11** Effect of maternal care and chronic stress of maternal separation on neuronal plasticity in the rat hippocampus. M. C. MOSTALLINO*; P. P. SECCI; M. V. MELIS; F. BIGGIO; M. SERRA. *Natl. Res. Council, CNR, Univ. of cagliari.*

11:00 MM17 **348.12** Rearing in overcrowded conditions in the night-time induces anxiolytic-like effects in adolescent mice. T. TANAKA*; Y. AGO; Y. OTA; E. IMOTO; M. KITAMOTO; K. TAKUMA; T. MATSUDA. *Osaka Univ., Unit-Grad. Sch. of Child Dev., Osaka Univ.*

8:00 MM18 **348.13** Characterizing histone acetylation at the BDNF gene in the mPFC of adult rats exposed to aversive or nurturing care during infancy. J. BLAZE*; T. L. ROTH. *Univ. of Delaware.*

9:00 MM19 **348.14** Inhibition of anandamide hydrolysis dampens stress-induced neuroendocrine responses in neonatal pups exposed to fragmented maternal care. R. J. MCLAUGHLIN*; C. D. WALKER. *McGill Univ.*

10:00 MM20 **348.15** Changes in function of gabaergic transmission and synaptic plasticity in the hippocampus c57bl/6j mice exposed to repeated maternal separation. G. TALANI*; V. LICHERI; J. DI LUCENTE; L. FIRINO; L. COCCO; A. A. GORULE; G. BIGGIO; E. SANNA. *of Neuroscience, Natl. Res. Council, Univ. of Cagliari.*

11:00 MM21 **348.16** Restraint stress during pregnancy raises kynurenic acid levels in placenta and fetal brain. F. M. NOTARANGELO*; R. SCHWARCZ. *Univ. of Maryland Sch. of Med.*

8:00 MM22 **348.17** Differential effects of repeated traumatic stress exposure on adolescent and adult male rats. N. L. MOORE*; D. E. ALTMAN; C. V. VUONG; J. C. SOUSA; S. R. MARCSISIN; V. E. ZOTTIG; R. F. GENOVESE. *Walter Reed Army Inst. of Res., Walter Reed Army Inst. of Res.*

9:00 MM23 **348.18** Corticosterone induces DNA methyltransferases expression in rat cortical cells. K. ANIER*; T. MATSALU; A. AONURM-HELM; I. KOPPEL; T. TIMMUSK; A. KALDA. *Univ. of Tartu, Tallinn Univ. of Technol.*

10:00 MM24 **348.19** Feasibility and outcome of measuring attentional set shifting behavior following the development of activity-based anorexia in rats. P. J. ALLEN*; R. B. KANAREK; D. C. JIMERSON; B. KOCSIS. *Harvard Med. Sch., Tufts Univ.*

11:00 MM25 **348.20** Prenatally stressed offspring demonstrate behaviours similar to rats with hippocampal dysfunction in a cue-place water task and discriminative fear conditioning to context. J. TROW*; R. J. BALOG; G. A. S. METZ; R. J. MCDONALD. *Canadian Ctr. For Behavioural Neurosci., Univ. of Lethbridge.*

8:00 MM26 **348.21** Rapid emergence of an altered 5HT2A responsivity and perturbed IEG pattern following early adverse experience. A. SOOD*; S. PATI; A. BHATTACHARYA; V. A. VAIDYA. *Tata Inst. of Fundamental Res.*

9:00 MM27 **348.22** Persistent effects of differential early rearing experience on rhesus monkey brain morphology. A. J. BENNETT*; W. D. HOPKINS; S. SKIBA; P. J. PIERRE. *Univ. of Wisconsin-Madison, Georgia State Univ., Univ. of Wisconsin-Madison.*

10:00 MM28 **348.23** Pathway and biomarker discovery in posttraumatic stress disorder mouse model. C. KAO; J. DINE*; K. HENES; C. T. WOTJAK; C. W. TURCK. *Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

349. Stress and the Hippocampus

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 MM29 **349.01** Associations between morning plasma cortisol and hippocampal subdivisions. A. KIM*; B. A. GORDON; N. DIPROSPERO; T. L. S. BENZINGER; A. M. FAGAN; J. C. MORRIS; D. HEAD. *Washington Univ. In St. Louis, Washington Univ. In St. Louis.*

9:00 MM30 **349.02** Chronic stress and ablation of neurogenesis independently reduce hippocampal volume. T. J. SCHOENFELD*; H. CAMERON. *NIMH/NIH.*

10:00 MM31 **349.03** Effects of chronic stress and chronic food restriction on avian adult hippocampal neurogenesis. T. V. SMULDERS*; B. ROBERTSON; L. RATHBONE; G. CIRILLO; R. B. D'EATH; M. BATESON; M. MAIDIN; P. W. WILSON; I. C. DUNN; T. BOSWELL. *Newcastle Univ., Durham Univ., Newcastle Univ., Scotland's Rural Col., Univ. of Edinburgh, Newcastle Univ.*

11:00 MM32 **349.04** Glucocorticoid receptor interactions with the hippocampal transposome. R. G. HUNTER*; B. B. GRIFFITHS. *Univ. of Massachusetts, Boston, The Rockefeller Univ.*

8:00 MM33 **349.05** The neuronal amino acid transporter SLC6A15 as new candidate gene for stress vulnerability and glutamatergic regulation. S. SANTARELLI*; B. BEDENK; C. NAMENDORF; E. ANDERZHANOVA; T. GERLACH; S. CUBONI; A. KIRSCHNER; S. KALTWASSER; K. WAGNER; C. LABERMAIER; M. MASANA; P. SÄMANN; F. HAUSCH; M. UHR; M. CZISCH; M. V. SCHMIDT. *Max Planck Inst. Für Psychiatrie.*

9:00 MM34 **349.06** Developmental patterns of gene expression in the fibroblast growth factor and stress systems: Comparisons between rats that differ in spontaneous anxiety. P. M. MARAS*; P. BLANDINO; S. WATSON; H. AKIL. *Univ. of Michigan, Univ. of Michigan.*

10:00 MM35 **349.07** Generalized fear of novelty predicts glucocorticoid receptor mRNA expression in adult male sprague-dawley rats. M. J. CARUSO*; R. A. CROUSE; S. A. CAVIGELLI. *Pennsylvania State Univ.*

11:00 MM36 **349.08** Melatonin prevents alcohol abstinence-induced persistent increases in rat hippocampal gene expression for CRF receptor and glucocorticoid receptor. D. D. RASMUSSEN*; C. L. KINCAID. *VAPSHCS and Univ. of Washington, VA Puget Sound Hlth. Care Syst. (VAPSHCS).*

8:00 NN1 **349.09** Possible protective role of cyclooxygenase-2-related signaling in adult neurogenesis under acute stress conditions. Y. MA*; T. MATSUWAKI; K. YAMANOUCHI; M. NISHIHARA. *The Univ. of Tokyo.*

9:00 NN2 **349.10** Repeated social stress affects DNA methylation of genes associated with CRH/UCN3, arginine-vasopressin and renin-angiotensin systems in adult mouse hippocampus. P. LISOWSKI; A. ARONOWICZ; G. R. JUSZCZAK; A. PIOTROWSKI; A. M. STANKIEWICZ; A. H. SWIERGIEL*. *Polish Acad. Sci., Med. Univ. of Gdansk, Dept. Animal & Human Physiology, Univ. of Gdansk.*

10:00 NN3 **349.11** Sex differences in hippocampal delta opioid receptor trafficking in response to acute and chronic stress. B. HALL*; A. D. GONZALEZ; S. MAZID; T. A. VAN KEMPEN; J. SELEGAN; B. S. MCEWEN; E. M. WATERS; T. A. MILNER. *Weill Cornell Med. Col., Weill Cornell Med. Col., The Rockefeller Univ.*

11:00 NN4 **349.12** Neurobehavioral effects of stress are similar but central neurochemical effects of stress differ in female and male rats. A. M. YARNELL*; N. E. GRUNBERG. *Walter Reed Army Inst. of Res., Uniformed Services Univ.*

8:00 NN5 **349.13** Differential BAG1 and BAG3 expression in the hippocampus of acute and chronically stressed mice. N. P. BOWLES*; T. G. RUBIN; J. D. GRAY; B. S. MCEWEN. *Rockefeller Univ.*

9:00 NN6 **349.14** Perinatal high fat diet exposure alters the transcriptional response to glucocorticoid challenge in the brains of adult rats. C. M. LUM*; W. C. DE VEGA; S. ABUAISH; A. SASAKI; P. O. MCGOWAN. *Univ. of Toronto.*

POSTER

350. Stress and Anxiety: Mechanisms

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 NN7 **350.01** Central amygdala PACAP in the behavioral stress response. V. SABINO*; A. IEMOLO; A. BLASIO; F. VARODAYAN; M. ROBERTO; P. COTTONE. *Boston Univ. Sch. of Med., The Scripps Res. Inst.*

9:00 NN8 **350.02** PACAP promotes a PTSD-like phenotype in fear conditioned rats. E. G. MELONI*; A. VENKATARAMAN; R. J. DONAHUE; W. A. CARLEZON, Jr. *McLean Hosp.*

10:00 NN9 **350.03** Early life stress in male rats leads to altered insulin/IGF1 signalling and impaired mitochondrial function. S. GHOSH*; K. K. BANERJEE; U. KOLTHUR-SEETHARAM; V. A. VAIDYA. *Tata Inst. of Fundamental Res.*

11:00 NN10 **350.04** D1 receptors modulate active threat responding. G. F. ANTUNES*; C. C. DE OLIVEIRA; M. C. DE CASTRO; F. V. GOUVEIA; M. D. J. SENO; L. T. DOS SANTOS; E. T. FONOFF; M. J. TEIXEIRA; J. P. OTOCH; R. C. R. MARTINEZ. *Inst. Sirio Libanês De Ensino E Pesquisa, Univ. de Sao Paulo.*

8:00 NN11 **350.05** Altered circadian locomotor activity in male and female rats in the prenatally restraint stressed model of depression. G. VAN CAMP*; M. REYNAERT; E. GATTA; A. TRAMUTOLA; P. NAVARRA; R. T. NGOMBA; S. MACCARI; F. NICOLETTI; J. MAIRESSE. *Univ. of Lille 1/ CNRS, LIA (International Associated Laboratory: Univ. of Lille1/CNRS, France; IRCCS Neuromed and Sapienza Univ. of Rome, Italy), Univ. Cattolica del Sacro Cuore, IRCCS Neuromed, Sapienza Univ. of Rome.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 NN12 **350.06** Prenatal restraint stress and sex hormones affect hedonic sensitivity to chocolate. M. REYNAERT*; J. MARROCCO; L. LIONETTO; L. DERUYTER; D. ALLORGE; A. MOLES; S. MACCARI; S. MORLEY-FLETCHER; G. VAN CAMP; F. NICOLETTI. *Univ. of Lille 1/CNRS, LIA (International Associated Laboratory: Univ. of Lille1/CNRS, France; IRCCS Neuromed and Sapienza Univ. of Rome, Italy), IRCCS Ctr. Neurolesi "Bonino-Pulejo", Sant'Andrea Hosp., Univ. of Lille 2, Natl. Res. Council (C.N.R.), Genomnia, Sapienza Univ. of Rome, IRCCS Neuromed.*

10:00 NN13 **350.07** Early-life stress influences hypothalamic-pituitary-adrenal axis activity and corticosterone receptors mRNA expression in hippocampus in the hyperthermia-induced febrile seizure model. E. H. UMEOKA*; E. ROBINSON; J. VAN CAMPEN; N. GARCIA-CAIRASCO; P. DE GRAAN; M. JOËLS. *Ribeirão Preto Sch. of Med. - Univ. of São Paulo, Brain Ctr. Rudolf Magnus, Univ. of Amsterdam, Ribeirão Preto Sch. of Med. - Univ. of São Paulo.*

11:00 NN14 **350.08** Fetal antecedent dexamethasone treatment has long-term consequences on vascular, glial, and functional aspects of the paraventricular nucleus of the hypothalamus. K. A. FRAHM*; S. A. TOBET. *Colorado State Univ., Univ. of Pittsburgh, Colorado State Univ.*

8:00 NN15 **350.09** Early adverse experience induces physiological and functional changes in Nucleus Accumbens of adult mice. A. VALZANIA*; C. LA TAGLIATA; D. ANDOLINA; L. LO IACONO; A. ACCOTO; D. CONVERSI; S. CABIB; S. PUGLISI-ALLEGRA; V. CAROLA. *IRCSS Fondazione Santa Lucia, Univ. of "L'Aquila", Univ. "La Sapienza", IRCSS Fondazione Santa Lucia.*

9:00 NN16 **350.10** Long term effects of interaction gene x early environment on response to salient stimuli. M. DI SEGNI; D. ANDOLINA; T. PASCUCCI; F. D'AMATO; L. BABICOLA; L. D'APOLITO; A. LUCHETTI; D. CONVERSI; S. PUGLISI-ALLEGRA; R. VENTURA*. *Sapienza Univ. of Rome, Santa Lucia Foundation, European Ctr. for Brain Res. CERC, L'Aquila Univ., Inst. of Cell Biol. and Neurobio. (IBCN), Natl. Res. Council (CNR), Univerity la Sapienza Rome.*

10:00 NN17 **350.11** ▲ Sex-specific effects of chronic paternal stress on offspring development in Balb/C mice. I. B. HABRYLO*; R. MASHOODH; S. ARMAND; K. GUDSNUK; F. A. CHAMPAGNE. *Columbia Univ., The Univ. of Southern Denmark.*

11:00 NN18 **350.12** MicroRNA in sperm: A causal link between paternal experience and offspring stress regulation. A. B. RODGERS; C. P. MORGAN; J. C. CHAN; T. L. BALE*. *Univ. Pennsylvania.*

8:00 NN19 **350.13** Disruption of placental metabolic genes dysregulates neurodevelopmental programming in males. S. L. BRONSON*; T. L. BALE. *Univ. of Pennsylvania.*

9:00 NN20 **350.14** Age-associated changes in anxiety-like behavior are regulated by alpha4 nAChRs and septum ERK signaling. C. I. DIXON*; S. M. ANDERSON; A. M. STAFFORD; P. SCHOLZE; D. H. BRUNZELL. *Virginia Commonwealth Univ., Medizinische Univ. Wien.*

10:00 NN21 **350.15** FGF2 is a target and a trigger of histone modification in association with differences in vulnerability to affective behavior. S. CHAUDHURY*; E. L. AURBACH; V. SHARMA; P. BLANDINO, Jr; C. A. TURNER; H. AKIL; S. J. WATSON, Jr. *MBNI Univ. of Michigan.*

11:00 NN22 **350.16** Prior maternal stress leads to atypical fear behaviour in infant offspring: A rodent model for examining maternal transmission of past experiences. J. M. KAN*; B. L. CALLAGHAN; R. RICHARDSON. *Univ. of New South Wales.*

8:00 NN23 **350.17** Investigating the role of altered EAAT3 expression in OCD-relevant circuits and behaviors. I. ZIKE*; J. KOPELMAN; D. FLICKER; K. NAUTIYAL; K. F. TANAKA; S. AHMARI; J. VEENSTRA-VANDERWEELE. *Vanderbilt Univ., Univ. of Pittsburgh, Harvard Univ., Columbia Univ., Keio Univ., Univ. of Pittsburgh, Vanderbilt Univ.*

9:00 NN24 **350.18** The immediate-early gene early growth response 1 (Egr-1) and sex differences in social anxiety: A whole-genome approach. F. DUCLOT*; M. KABBAJ. *Florida State Univ., Florida State Univ.*

10:00 NN25 **350.19** Infusion of sodium lactate in obese rats leads to panic-like responses. A. R. ABREU*; R. F. F. VIEIRA; A. R. R. DE ABREU; L. G. B. T. SANTOS; D. A. CHIANCA JR; R. C. A. MENEZES. *Federal Univ. of Ouro Preto.*

11:00 NN26 **350.20** Aggressive behavior during an escapable social encounter is altered by adolescent social isolation and is dependent upon the social history of the stimulus rat. S. T. BLAND*; D. J. GOODELL; M. AHERN; J. BAYNARD; S. ORCUTT. *Univ. of Colorado, Denver.*

8:00 NN27 **350.21** Variation in early maternal rejection produces differences in the biology of free-ranging infant rhesus macaques (Macaca mulatta). J. E. MADRID*; T. MANDALAYWALA; S. P. COYNE; S. HYDE; J. GARNER; D. MAESTRIPIERI; K. J. PARKER. *Stanford Univ., The Univ. of Chicago, Stanford Univ.*

9:00 NN28 **350.22** Impaired avoidance learning and altered prefrontal STDP following repeated acute stress. W. YE*; K. ZHANG; F. LI; Y. LI; W. YAO; P. LAU; G. BI. *Univ. of Sci. and Technol. of China, Zhejiang Univ., Harvard Med. Sch.*

10:00 NN29 **350.23** Chronic mild stress enhances fear memory processing, but also increases impulsivity. R. M. CAMP*; J. D. JOHNSON. *Kent State Univ.*

11:00 NN30 **350.24** Dopamine modulates high-order motor control. P. SABANDAL*; Y. KIM; K. HAN. *Univ. of Texas At El Paso.*

8:00 NN31 **350.25** Network-specific changes in correlated population activity in a quinpirole model of obsessive-compulsive disorder. S. SHIN*; I. VAN GEELEN; I. WILLUHN; M. FEENSTRA; D. DENYS. *Netherlands Inst. for Neurosci. (NIN), Academic Med. Ctr. (AMC).*

9:00 NN32 **350.26** ▲ Winning repeated aggression stimulates protracted AVP and NPS gene expression as well as anxious behavior. M. A. PRINCE*; J. P. SMITH; J. ROBERTSON; J. K. ACHUA; R. T. ANDERSON; C. DONOHOE; T. SUMMERS; P. J. RONAN; C. H. SUMMERS. *Univ. of South Dakota, VA Affairs Res. Service, Avera McKennan Hosp. & Univ. Ctr.*

10:00 NN33 **350.27** Role of estradiol on brain white matter development during puberty: Interactions with social stress in female macaques. J. GODFREY*; B. R. HOWELL; Y. SHI; M. STYNER; M. WILSON; M. M. SANCHEZ. *Emory Univ., Emory Univ., Emory Univ. Sch. Med., Univ. of North Carolina.*

11:00 NN34 **350.28** Decision-making across a gradient of anxiety differentially influences central amygdala NPS and BDNF gene expression. J. ROBERTSON*; J. P. SMITH; J. K. ACHUA; M. A. PRINCE; T. R. SUMMERS; P. J. RONAN; C. H. SUMMERS. *Univ. of South Dakota, VA Affairs Res. Service, Avera McKennan Hosp. & Univ. Ctr.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 NN35 **350.29** Striatal expression of constitutively active CaMKII promotes resistance to anxiety-provoking stimuli via enhanced Kv4.2 channel function. R. A. FISCHER; M. A. BENNEYWORTH; T. MACHEDA; M. THOMAS*. *Univ. of Minnesota.*

9:00 NN36 **350.30** ▲ Oxytocin and social bonding as treatments in a rodent model of posttraumatic stress disorder. E. JANEZIC; S. NAGL; S. UPPALAPATI; E. D. FRENCH; J. FELLOUS*. *Univ. of Arizona, Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

POSTER

351. Psychosocial Stress

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 OO1 **351.01** Role of locus coeruleus norepinephrine neurons in mediating resilience to social defeat stress. H. ZHANG*; D. CHAUDHURY; M. CRUMILLER; B. JUAREZ; A. FRIEDMAN; S. KU; J. CAO; M. HAN. *Icahn Sch. of Med. At Mount Sinai, Xuzhou Med. Col., Rockefeller Univ.*

9:00 OO2 **351.02** Vascular endothelial growth factor (VEGF) and vascular density in hippocampus of rats vulnerable or resilient to the effects of chronic stress. J. PEARSON-LEARY*; B. NICHOLAS; S. BHATNAGAR. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania.*

10:00 OO3 **351.03** Acupuncture increases dendritic arborization and dendritic spine density in the CA1 region of the hippocampus in social isolated rats. A. DAVILA HERNANDEZ*; S. R. ZAMUDIO; R. GONZALEZ-GONZALEZ; L. A. PICHARDO; E. RAMIREZ-SAN JUAN. *Inst. Politecnico Nacional, Inst. Politecnico Nacional, Inst. Politecnico Nacional.*

11:00 OO4 **351.04** Activation of the basomedial amygdala suppresses the cardiovascular response to an emotional stress in rats. A. R. DE ABREU*; L. G. B. T. SANTOS; A. R. R. ABREU; A. M. A. DE SOUZA; D. A. CHIANCA JUNIOR; R. C. A. MENEZES. *Federal Univ. Ouro Preto.*

8:00 OO5 **351.05** Repeated social defeat activates corticotropin-releasing hormone neurons in the extended amygdala: Implications for behavioral coping strategies. E. D. PAUL*; L. M. DAWUD; B. K. K. FIELDS; J. D. HEINZE; M. W. HALE; J. L. LUKKES; C. A. LOWRY. *Univ. of Colorado, La Trobe Univ., Harvard Med. Sch.*

9:00 OO6 **351.06** Mature BDNF in the basolateral amygdala is critical for the consolidation of defeat-related memories. B. N. DULKA*; E. C. FORD; M. A. LEE; N. J. DONNELL; M. A. COOPER. *Univ. of Tennessee, Univ. of Tennessee.*

10:00 OO7 **351.07** Mu-opioid receptor regulation of ferret odor-elicited glutamate release in the central amygdala. J. PARRILLA-CARRERO*; J. R. FADEL; M. A. WILSON. *Univ. of South Carolina, Sch. of Med.*

11:00 OO8 **351.08** Chronic social isolation stress alters the excitability and the modulation of dorsal raphe serotonin (5-HT) neurons. D. SARGIN*; E. K. LAMBE. *Univ. of Toronto, Univ. of Toronto.*

8:00 OO9 **351.09** Encounter stimulation-induced hyperactivity of social isolation-reared mice is attenuated by antidepressants. S. HASEBE*; Y. AGO; S. NISHIYAMA; S. OKA; D. NAKAMORI; K. TAKUMA; T. MATSUDA. *Osaka Univ., Unit-Grad. Sch. of Child Dev., Osaka Univ.*

9:00 OO10 **351.10** Repeated threats without harm increase basal metabolic activity in areas critical for coordinating behavioral defense responses. D. J. KIM*; A. YTTREDAHL; C. SHAH; A. S. LEE; B. J. ANDERSON. *Stony Brook Univ.*

10:00 OO11 **351.11** Role of stathmin-dependent microtubule stability in depression and social behavior. I. CHEVERE*; S. UCHIDA; C. HEVI; V. SAHU; G. P. SHUMYATSKY. *Rutgers Univ. / HGINJ, Yamaguchi Univ. Grad. Sch. of Med.*

11:00 OO12 **351.12** Effects of dominant status on plasma testosterone and androgen receptor expression in Syrian hamsters. C. T. CLINARD*; A. K. BARNES; M. A. COOPER. *Univ. of Tennessee.*

8:00 OO13 **351.13** The effect of hurtful words by peer group on brain activity in adolescence. S. LEE*; J. CHOI; J. LEE; J. YOO; K. KIM; D. KIM; H. PARK; B. JEONG. *Korea Advanced Inst. of Sci. and Technol., Daejeon St. Mary's Hospital, The Catholic Univ. of Korea, Col. of Med., Korea Advanced Inst. of Sci. and Technol.*

9:00 OO14 **351.14** Looking at the self in front of others; neural correlates of attentional bias in social anxiety. S. CHOI*; J. KIM. *Seoul Natl. Univ. Hosp., Yonsei Univ.*

POSTER

352. Brain Blood Flow

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

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 OO15 **352.01** Moderate neuronal stimulation induces arteriolar dilation independent of astrocyte endfeet. A. INSTITORIS*; D. ROSENEGGER; G. GORDON. *Univ. Of Calgary, Univ. of Calgary, Univ. of Calgary.*

9:00 OO16 **352.02** Astrocytic modulation of basal cerebral blood vessel diameter. D. G. ROSENEGGER*; G. R. J. GORDON. *Univ. of Calgary, Univ. of Calgary.*

10:00 OO17 **352.03** Correlation between hemodynamics and neuronal activity during altered brain states. C. LECRUX*; C. SANDOE; S. NEUPANE; P. KROPF; X. TOUSSAY; X. TONG; A. SHMUEL; E. HAMEL. *McGill Univ., McGill Univ.*

11:00 OO18 **352.04** Assessing cortical neurovascular coupling in the presence and absence of stimulation. Y. MA*; M. G. KOZBERG; S. H. KIM; E. M. C. HILLMAN. *Columbia Univ., Columbia Univ.*

8:00 OO19 **352.05** Mapping oxygen partial pressure in the awake mouse brain. D. LYONS*; A. PARPALEIX; S. CHARPAK. *INSERM U1128.*

9:00 OO20 **352.06** ● Comparison of neuronal and hemodynamic resting state functional connectivity mapping in awake mouse brain. S. H. KIM*; Y. MA; M. A. SHAIK; M. G. KOZBERG; V. VOLETI; K. YANG; E. M. C. HILLMAN. *Columbia Univ. Lab. For Functional Optical Imaging, Columbia Univ.*

10:00 OO21 **352.07** Assessing the contribution of endothelial mechanisms in functional neurovascular coupling. M. A. SHAIK*; D. Y. CHUNG; M. G. KOZBERG; E. M. C. HILLMAN. *Columbia Univ., Columbia Univ. Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 OO22 **352.08** Microanatomy of brain capillary pericytes and their responses to vasoactive mediators and ischaemia. F. M. O'FARRELL*; C. REYNELL; A. MISHRA; R. NORTLEY; M. PAPOULIA; B. A. SUTHERLAND; A. M. BUCHAN; C. N. HALL; D. ATTWELL. *Univ. Col. London, Univ. of Oxford.*

8:00 OO23 **352.09** Cortical depth dependent hemodynamics to locomotion. Y. GAO*; S. E. GREENE; P. J. DREW. *Pennsylvania State Univ.*

9:00 OO24 **352.10** Cortical inhibitory interneurons shape functional hyperemia. H. UHLIROVA; K. KILIC; P. TIAN; P. A. SAISAN; Q. CHENG; F. RAZOUX; K. L. WELDY; E. MASLIAH; D. A. BOAS; A. M. DALE; A. DEVOR*. *UCSD, UCSD, John Carroll Univ., MGH/Harvard Med. Sch., UCSD.*

10:00 OO25 **352.11** The role of nNOS for hyperemia induced by sensory and optogenetic stimulation *in vivo.* P. TIAN; H. UHLIROVA; K. KILIÇ*; P. A. SAISAN; Q. CHENG; K. L. WELDY; E. MASLIAH; D. A. BOAS; A. M. DALE; A. DEVOR. *UCSD, John Carroll Univ., UCSD, MGH/Harvard Med. Sch., UCSD.*

11:00 OO26 **352.12** Brain endothelial cells express NMDA receptors functionally linked to nitric oxide generation. A. D. HOGAN-CANN*; L. LU; C. M. ANDERSON. *Univ. of Manitoba, Neurosci. Res. Program, Kleysen Inst. for Advanced Medicine, Hlth. Sci. Ctr.*

8:00 OO27 **352.13** Morphoquantitative evaluation of fibroelastic components in basilar and middle cerebral arteries of rats exposed to passive smoking. C. A. FABREGA-CARVALHO*, SR; E. ROBELLO; N. LIMA-FROIO; R. N. ISAYAMA. *Faculdade de Medicina de Jundiai (FMJ), UNASP-SP.*

9:00 OO28 **352.14** ATP-dependent potassium channels are inactivated in early vascular injury after SAH on rat cerebral penetrating arterioles. T. MURATA*; T. HORIUCHI; K. HONGO. *Shinshu Univ. Sch. of Med.*

10:00 OO29 **352.15** Neurovascular and cognitive dysfunction in a mouse model of life-long hypertension. G. FARACO*; Y. SUGIYAMA; K. KOIZUMI; J. ANRATHER; C. IADECOLA. *Weill Med. Col. of Cornell Univ.*

11:00 OO30 **352.16** 20-hydroxyeicosatetraenoic acid synthesis explains reduced cerebral blood flow after cortical spreading depression. J. C. FORDSMANN*; R. KO; H. B. CHOI; K. J. THOMSEN; B. M. WITGEN; C. MATHIESEN; M. LØNSTRUP; H. PIILGAARD; B. MACVICAR; M. LAURITZEN. *Univ. of Copenhagen/DNP, Brain Res. Ctr.*

8:00 OO31 **352.17** Changes of cortical perfusion during early phase of subarachnoid bleeding in a rat model. M. KOLAR; K. NOHEJLOVA*; J. MARES; J. PACHL. *Charles Univ. in Prague/ Third Fac. of Med., Charles Univ. in Prague/ Third Fac. of Med.*

9:00 OO32 **352.18** Blood flow measurement using Diffuse Correlation Spectroscopy (DCS): A comparison study with laser Doppler fluximetry in post-occlusive reactive hyperemia test. K. NAGONO*; S. TSUJIMOTO; T. TAGUCHI; R. OUCHI; Y. ONO. *Meiji Univ.*

10:00 PP1 **352.19** Reduced tissue plasminogen activator contributes to the alteration of neurovascular coupling induced by amyloid-β peptide. L. PARK*; P. ZHOU; J. ANRATHER; C. IADECOLA. *Weill Cornell Med. Col.*

11:00 PP2 **352.20** ● Examination of Aβ in the brain and lymph nodes provides evidence for impaired perivascular degradation and clearance in Tg2576 mice. R. C. GENTZEL*; S. LIN; T. CASH-MASON; I. PETRESCU; N. HATCHER; J. J. RENGER; J. C. HERSHEY. *Merck & Co.*

POSTER

353. Perception and Imagery

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 PP3 **353.01** Spatial and temporal parameters in human perception of visual similarity under ambiguity. S. AN*; W. CHOI; S. PAIK. *KAIST.*

9:00 PP4 **353.02** Expectation does not affect fMRI adaptation in metric face space. M. OLKKONEN*; G. K. AGUIRRE; R. A. EPSTEIN. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

10:00 PP5 **353.03** Effects of physical size on visual contour integration and global-local judgments of hierarchical forms. J. M. BROWN*; A. CATE. *Virginia Tech.*

11:00 PP6 **353.04** ● ▲ Analysis of processing mechanism of the human brain with multiple sensory information using fNIRS. K. TAKI*; U. YAMAMOTO; T. HIROYASU. *Doshisha Univ.*

8:00 PP7 **353.05** Neural representations of human interactions. A. A. HAFRI*; J. C. TRUESWELL; R. A. EPSTEIN. *Univ. of Pennsylvania.*

9:00 PP8 **353.06** Brain activity and perception of sense of ownership while viewing a video of hand manipulation: A functional infrared spectroscopy study. S. WAKATA*; M. OSUMI; A. MATSUO; S. MORIOKA. *Kamigyo Clin., Neuro Rehabil. Res. Center, Kio Univ., Dept. of Neurorehabilitation, Grad. Sch. of Hlth. Sciences, Kio Univ., Neurocognitive Rehabil. Center, Setsunan Gen. Hosp.*

10:00 PP9 **353.07** Dissociation between amplitude and synchrony of brain activity in a human model of loss of coherence. J. M. CASTELHANO*; I. S. BERNARDINO; J. REBOLA; M. CASTELO-BRANCO. *IBILI - Fac. of Medicine, Univ. of Coimbra, ICNAS, Univ. of Coimbra.*

11:00 PP10 **353.08** Switch-related activity and phase synchronization during mental hand rotation task. H. YOKOYAMA*; I. NAMBU; J. IZAWA; Y. WADA. *Nagaoka Univ. of Technol., NTT Communication Sci. Labs.*

8:00 PP11 **353.09** A study of the interaction between the visual hierarchy and the content of visual consciousness: Implications for the existence of subjective visual experience. I. REBOLLO*; F. CAMPANA; V. WYART; C. TALLON-BAUDRY. *Lab. De Neurociencies Cognitives, Cognitive Neurosci. Laboratory, Inst. Natl. de la Sante et de la Recherche Medicale (INSERM) - Ecole Normale Superieure (ENS), Dept. of Neuroscience, Georgetown Univ. Med. Ctr.*

9:00 PP12 **353.10** Preparatory neural activity in posterior temporal cortex is causally involved in real-world visual search. R. REEDER*; M. V. PEELEN. *Ctr. For Mind/Brain Sci.*

10:00 PP13 **353.11** Reducing distinctive features of a visual stimulus in a detection task reveals ERP components specifically related to conscious perception. G. BONCOMPTE; D. COSMELLI*. *Pontificia Univ. Católica de Chile, Pontificia Univ. Católica de Chile.*

11:00 PP14 **353.12** Critical role of the right inferior frontoparietal network in illusory movement awareness. F. CIGNETTI*; M. VAUGOYEAU; B. NAZARIAN; M. ROTH; J. ANTON; C. ASSAIANTE. *CNRS & Aix-Marseille Univ., CNRS & Aix-Marseille Univ.*

8:00 PP15 **353.13** Neural correlates of holistic and configural visual object processing. S. M. ROLDAN*; A. D. CATE. *Virginia Tech., Virginia Tech.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 PP16 **353.14** ▲ Noninvasive electrical stimulation of the prefrontal cortex induced the change of brain oscillations during visuospatial memory task. M. SONG*; K. YUN. *KAIST, Ybrain Res. Inst., Caltech.*

10:00 PP17 **353.15** Gestalt perception is accompanied by reduction of parietal beta oscillations. N. ZARETSKAYA*; A. BARTELS. *Ctr. for Integrative Neuroscience, Univ. of Tübingen.*

11:00 PP18 **353.16** The possibility of objective tinnitus detection method in humans. B. KIM*; I. PARK. *Dankook Univ., Dankook Univ.*

8:00 PP19 **353.17** Selective modulation of interhemispheric functional connectivity by transcranial alternating current stimulation. R. F. HELFRICH*; H. KNEPPER; G. NOLTE; D. STRÜBER; S. RACH; C. S. HERRMANN; T. R. SCHNEIDER; A. K. ENGEL. *Univ. Med. Ctr. Hamburg, Univ. of Oldenburg.*

9:00 PP20 **353.18** Human intracranial recordings identify category specific neural representations. A. WATROUS*; L. DEUKER; J. FELL; N. AXMACHER. *Univ. of Bonn, Donders Inst. for Brain, Cognition and Behaviour, Radboud Univ.*

10:00 PP21 **353.19** Age-related differences in object discrimination: The effects of familiarity on perirhinal cortex, hippocampus and temporal pole fmri activation. J. CARDOZA*; W. T. ARNOLD; J. WALLENTIN-FLORES; L. RYAN. *Univ. of Arizona, Univ. of Arizona.*

11:00 PP22 **353.20** Quantifying subjective conscious experience using fMRI: A complex network analysis of multisensory integration tasks. J. DELL' HALIA*; M. M. MONTI. *UCLA.*

8:00 PP23 **353.21** Colour constancy without colour experience. L. J. NORMAN*; K. AKINS; C. A. HEYWOOD; R. W. KENTRIDGE. *Durham Univ., Durham Univ., Simon Fraser Univ.*

9:00 PP24 **353.22** The mental representation of space for perception versus for motor control. O. L. BOCK*; N. BURY. *German Sport Univ., German Sport Univ.*

10:00 QQ1 **353.23** Prestimulus phase, power, and connectivity patterns predict phosphene perception and cortical information flow. J. SAMAHA*; O. GOSSERIES; B. R. POSTLE. *UW Madison, UW Madison, UW Madison.*

11:00 QQ2 **353.24** ● Exploring speed discrimination of visual stimuli at a high frame rate. S. KIME*; F. GALLUPPI; J. LORENCEAU; R. BENOSMAN. *Vision Institute, UPMC, UMR S968 Inserm, Univ. Pierre et Marie Curie, CNRS LSP-DEC Ecole Normale Supérieure.*

8:00 QQ3 **353.25** Single unit activity in the human medial temporal lobe during conscious and unconscious perception at comparable physical stimulus intensities. T. P. REBER*; A. RACZ; J. BOSTROEM; V. A. COENEN; F. MORMANN. *Univ. of Bonn, Univ. of Bonn, Germany, Freiburg Univ. Med. Ctr.*

9:00 QQ4 **353.26** Pain behavior and autonomic responses among individuals with intellectual disability. T. BENROMANO*; C. G. PICK; R. DEFRIN. *Tel Aviv Univ., Tel Aviv Univ.*

10:00 QQ5 **353.27** Imagery influences neuronal responses in human early visual cortex (V1/V2): A case study. J. POSSEL*; M. W. SELF; J. C. PETERS; S. CLAUS; J. C. BAAYEN; P. R. ROELFSEMA. *Netherlands Inst. For Neurosci., Fac. of Psychology and Neuroscience, Maastricht Univ., SEIN, VU Univ. Med. Ctr., AMC.*

11:00 QQ6 **353.28** Dissociating visual short-term memory and visual imagery in the early visual cortex. E. SAAD*. *Aalto Univ. Sch. of Sci.*

8:00 QQ7 **353.29** Anatomical connectivity pattern of parahippocampal gyrus predicts its object selectivity across sighted and congenitally blind participants. C. HE*; S. ZHONG; G. GONG; Z. HAN; Y. BI. *State Key Lab. of Cognitive Neurosci. and, State Key Lab. of Cognitive Neurosci. and Learning.*

POSTER

354. Human Long-Term Memory: Medial Temporal Lobe II

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 QQ8 **354.01** Creating memories of the affective future: Ventromedial prefrontal cortex and the facilitation of prior knowledge. R. G. BENOIT*; K. K. SZPUNAR; D. L. SCHACTER. *Harvard Univ.*

9:00 QQ9 **354.02** Emotional learning selectively enhances declarative memory for past events. J. E. DUNSMOOR*; V. P. MURTY; L. DAVACHI; E. A. PHELPS. *New York Univ.*

10:00 QQ10 **354.03** Reward motivation benefits memory via offline post-learning dynamics. M. GRUBER*; M. RITCHEY; S. WANG; M. DOSS; E. DÜZEL; C. RANGANATH. *UC Davis, Inst. of Cognitive Neurol. and Dementia Res., Ctr. for Neurodegenerative Dis., Univ. Col. London, UC Davis.*

11:00 QQ11 **354.04** Value memory for aversive episodic experiences. G. WIMMER*; L. KAMPERMANN; C. BÜCHEL. *Univ. Med. Ctr. Hamburg-Eppendorf.*

8:00 QQ12 **354.05** Medial temporal lobe responses during encoding predict the influence of post-encoding stress on memory. M. RITCHEY*; A. M. MCCULLOUGH; C. RANGANATH; A. P. YONELINAS. *UC Davis, UC Davis.*

9:00 QQ13 **354.06** Reward rescues navigation performance from the impairing effects of stress. S. M. HOSCHEIDT*; A. ADCOCK; K. LABAR. *Duke Univ.*

10:00 QQ14 **354.07** Effects of a nap on memory for stimuli that are future-relevant due to emotional content, intentional encoding, or reward. K. A. BENNION*; J. D. PAYNE; E. A. KENSINGER. *Boston Col., The Univ. of Notre Dame.*

11:00 QQ15 **354.08** Retroactive modulation of memory by rewards. E. K. BRAUN*; E. BRAUN*; G. WIMMER; A. PATIL; B. VAIL; D. SHOHAMY. *Columbia Univ., Univ. Med. Ctr. Hamburg-Eppendorf, New York Univ., Columbia Univ.*

8:00 QQ16 **354.09** Human brain activity during other and self perspective taking. K. HOYANO*; S. MORIOKA. *Komoro Kosei Gen. Hosp., Grad. Sch. of Hlth. Sci. The Univ. of Kio.*

9:00 QQ17 **354.10** A nap rich in slow wave sleep selectively preserves emotional scene components. S. E. ALGER*; A. CHAMBERS; J. D. PAYNE. *Univ. of Notre Dame.*

10:00 QQ18 **354.11** Interoceptive signals for encoding. C. RAINEY*; K. C. DICKERSON; R. A. ADCOCK. *Duke Univ.*

11:00 QQ19 **354.12** Post-encoding connectivity during rest is associated with reward-motivated memory. V. P. MURTY*; I. BARAKAT; A. TOMPARY; R. ADCOCK; L. DAVACHI. *NYU, New York Univ., New York Univ., Duke Univ.*

8:00 QQ20 **354.13** WITHDRAWN.

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 QQ21 **354.14** Ventral striatum tracks incentive during declarative memory retrieval. K. C. DICKERSON*; M. R. DELGADO. *Duke Univ., Rutgers Univ.*

10:00 QQ22 **354.15** Validity of cues predicting reward delivery influences recognition memory for associated novel objects. N. J. CLEMENT*; J. K. STANEK; R. A. ADCOCK. *Duke Univ.*

11:00 QQ23 **354.16** Short-term volumetric changes of contralateral hippocampus after medial temporal lobe resection. A. PAJKERT; T. LEHMANN; F. OLTMANNS; V. WITTE; W. SOMMER; H. R. HEEKEREN; E. DÜZEL; M. HOLTKAMP; C. J. PLONER*; C. FINKE. *Charité, Helios-Klinikum, Krankenhaus Königin Elisabeth Herzberge, MPI for Human Cognitive and Brain Sci., Humboldt-Universität, Freie Univ., DZNE, UCL.*

8:00 QQ24 **354.17** Low-frequency phase-locking of stimulus-selective human medial temporal lobe neurons to the local field potential of contralateral lateral prefrontal cortex during visual stimulation. C. BOSMAN*; T. SIKKENS; J. POSSEL; M. SELF; H. BAAYEN; S. CLAUS; P. R. ROELFSEMA; C. PENNARTZ. *Univ. of Amsterdam, Netherlands Inst. for Neurosci., VU Med. Ctr., Dutch epilepsy Clinics Fndn.*

9:00 QQ25 **354.18** Behavioral pattern separation correlates with performance in a virtual water maze task. G. D. CLEMENSON*; C. STARK. *UC Irvine.*

10:00 QQ26 **354.19** Contributions of human dentate gyrus and CA3 to recognition memory differ along the hippocampal longitudinal axis. Z. REAGH*; J. WATABE; M. LY; E. MURRAY; M. A. YASSA. *The Univ. of California, Irvine, Ctr. for the Neurobio. of Learning and Memory, Inst. for Memory Impairments and Neurolog. Disorders, Univ. of Iowa.*

11:00 QQ27 **354.20** Acute typtophan depletion modulates kynurenine production: Implications for treatment of cognitive impairment in brain-gut axis disorders. P. J. KENNEDY*; A. P. ALLEN; A. O'NEILL; E. M. M. QUIGLEY; J. F. CRYAN; T. G. DINAN; G. CLARKE. *Univ. Col. Cork, Univ. Col. Cork, Univ. Col. Cork, Univ. Col. Cork, Univ. Col. Cork.*

8:00 QQ28 **354.21** Intracranial electrophysiological correlates of episodic encoding and retrieval of single items and multi-item conjunctions in human medial temporal lobe. K. F. LAROCQUE*; J. CHEN; A. GONZALEZ; B. FOSTER; V. RANGARAJAN; J. PARVIZI; A. D. WAGNER. *Stanford Univ., Stanford Univ., Princeton Univ., Stanford Univ., Stanford Univ.*

9:00 QQ29 **354.22** Invariance of single unit responses in the human medial temporal lobe to image transformations in a visual object presentation task. A. RACZ*; M. NAVRATIL; J. NIEDIEK; T. REBER; H. KARNATH; J. BOSTRÖM; V. COENEN; C. ELGER; F. MORMANN. *Klinik Für Epileptologie, Ctr. of Neurol., Dept. of Neurosurg., Dept. of Stereotactic and Functional Neurosurg.*

10:00 QQ30 **354.23** Dissociable roles of human hippocampal subfields CA3/DG and CA1 during processing of spatial context. J. STOKES*; C. KYLE; A. EKSTROM. *UC Davis, UC Davis.*

11:00 QQ31 **354.24** Cortisol regulation and cognitive functioning across the adult lifespan. G. E. ENNIS*; S. D. MOFFAT; C. K. HERTZOG. *Georgia Inst. of Technol.*

8:00 QQ32 **354.25** Human neuronal correlates for encoding novel images in a visual recognition memory task. M. T. KUCEWICZ*; B. M. BERRY; M. R. BOWER; V. SVEHLIK; J. MATSUMOTO; W. R. MARSH; F. B. MEYER; S. M. STEAD; G. A. WORRELL. *Mayo Clin., Intl. Clin. Res. Ctr., Mayo Clin.*

9:00 QQ33 **354.26** Behavioral confidence during recognition memory is correlated with single unit and multi-unit activity across multiple brain regions. J. KUHN; J. T. WIXTED*; L. R. SQUIRE; Y. JANG; M. H. PAPESH; S. D. GOLDINGER; P. N. STEINMETZ. *UC San Diego, UC San Diego, Univ. of Montana, Louisiana State Univ., Arizona State Univ., Barrow Neurolog. Inst.*

10:00 QQ34 **354.27** Posterior parahippocampal cortex suppoprts the representation of current location and anterior parahippocampal cortex and anterior hipppocampus an abstract overview of the environment. H. R. EVENSMOEN*; A. HÅBERG. *NTNU.*

11:00 QQ35 **354.28** Behavioral pattern separation/completion: A signal detection theory analysis. R. E. LOIOTILE*; C. A. CUNNINGHAM; H. E. EGETH; S. M. COURTNEY. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med., Kennedy Krieger Inst.*

8:00 QQ36 **354.29** MEG and iEEG simultaneous measurement of medial temporal lobe during memory task. Y. INOUE*; T. YANAGISAWA; H. KISHIMA; M. HIRATA; S. OSHINO; T. YOSHIMINE. *Osaka Univ.*

9:00 RR1 **354.30** Impairment in recollection and familiarity in amnestic mild cognitive impairment. L. ULLRICH*; R. S. TURNER; R. B. FRIEDMAN. *Georgetown Univ., Georgetown Univ.*

10:00 RR2 **354.31** Intact boundary extension in memory-impaired patients with hippocampal lesions. S. KIM*; A. J. O. DEDE; R. O. HOPKINS; L. R. SQUIRE. *Univ. of California San Diego, Veterans Affairs San Diego Healthcare Syst., Brigham Young Univ., Intermountain Med. Ctr.*

11:00 RR3 **354.32** The impact of anterograde amnesia on narrative construction of past and future episodes. A. DEDE*; R. O. HOPKINS; L. R. SQUIRE. *Univ. of California San Diego, Veterans Affairs San Diego Healthcare Syst., brigham young university, Intermountain Med. Ctr., Univ. of California San Diego.*

8:00 RR4 **354.33** Hippocampal volume reduction in developmental amnesia underlies spatial recall impairments in virtual-reality based navigation. S. GUDERIAN*; A. DZIECIOL; D. G. GADIAN; S. JENTSCHKE; C. F. DOELLER; N. BURGESS; M. MISHKIN; F. VARGHA-KHADEM. *NIH/NIMH, Univ. Col. London, Freie Univ. Berlin, Radboud Univ., Univ. Col. London.*

9:00 RR5 **354.34** Binding across long-term memory and short-term memory in amnesia. E. RACE*; K. BURKE; M. VERFAELLIE. *VA Boston Healthcare Syst. and Boston Univ. Sch. of Med.*

POSTER

355. Disorders of Attention

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 RR6 **355.01** Alterations in neural synchronies in theta-band in patients with restless legs syndrome during a working memory task. K. CHA*; J. CHOI; B. LEE; K. JUNG; K. KIM. *Yonsei Univ., Seoul Natl. Univ.*

9:00 RR7 **355.02** ● Accessible online cognitive training for children with ADHD in a global mental health setting. J. MISHRA*; A. JOSEPH; M. MERZENICH; R. SAGAR. *Univ. of California San Francisco, All India Inst. of Med. Sci., PositScience.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 RR8 **355.03** Cognitive failure in sellar-suprasellar lesion patients. W. K. TING*; T. A. SCHWEIZER; G. ILIE; M. D. CUSIMANO. *St. Michael's Hosp., Keenan Res. Ctr. for Biomed. Science, the Li Ka Shing Knowledge Inst., Inst. of Med. Sciences, Univ. of Toronto, Inst. of Biomaterials and Biomed. Engineering, Univ. of Toronto, Fac. of Medicine, Univ. of Toronto.*

11:00 RR9 **355.04** ● A randomized controlled trial investigating the effects of an oil extract of the new zealand green lipped mussel (perna canaliculus), on the behaviour, mood, cognition & neurophysiology of children and adolescents (aged 6-14 years) experiencing clinical and sub-clinical levels of hyperactivity and inattention. J. D. KEAN*; C. STOUGH; D. CAMFIELD; L. DOWNEY; J. SARRIS; A. SCHOLEY; R. SILBERSTEIN. *Swinburne Univ. of Technol., Swinburne Univ. of Technol., Univ. of Wollongong, Swinburne Univ. of Technol., Univ. of Melbourne.*

8:00 RR10 **355.05** Frequency of a serotonin transporter gene (slc6a4) 5-httlpr polymorphism in children with attention deficit hyperactivity disorder from mexico. V. PERALTA-LEAL*; E. LEAL-UGARTE; J. F. AHUMADA-PÉREZ; J. P. MEZA-ESPINOZA; L. E. CRUZ-ALCALÁ; M. GUTIÉRREZ-ANGULO; P. L. PADILLA-MACÍAS; E. E. CRUZ-MARTÍN-DEL-CAMPO; I. P. DÁVALOS-RODRÍGUEZ; M. P. GALLEGOS-ARREOLA; N. SARASWATHY; J. DURÁN-GONZÁLEZ. *Univ. Autonoma De Tamaulipas, Facultad de Medicina e Ingeniería en Sistemas Computacionales (FMeISC), de la Univ. Autónoma de Tamaulipas (UAT),, 2Centro Universitario de los Altos, Univ. de Guadalajara (UdeG), Guadalajara Jalisco, México, Ctr. de Investigación Biomédica de Occidente (CIBO), Inst. Mexicano del Seguro Social (IMSS), Guadalajara Jalisco, México, Univ. of Texas at Brownsville, Ctr. for Biomed. Studies.*

9:00 RR11 **355.06** Neurofeedback effects on attention in polysubstance users in recovery. M. COWEN*; L. RAPGAY; D. THEODORE; J. M. SCHWARTZ; J. L. ROSS; J. R. KEITH. *Univ. of North Carolina Wilmington, Univ. of California Los Angeles, CRI-Help, Inc., Alliant Intl. Univ. Los Angeles.*

10:00 RR12 **355.07** Temporal order judgments as a sensitive measure of the attentional imbalance in patients with hemispatial neglect. S. VAN DER STIGCHEL*; T. C. W. NIJBOER. *Utrecht Univ.*

11:00 RR13 **355.08** A dimensional approach to ADHD symptomatology: Evidence from structural brain imaging. A. S. POTTER*; R. WHELAN; H. GARAVAN. *Dept. of Psychiatry, Univ. Col. Dublin, Univ. of Vermont.*

8:00 RR14 **355.09** Unique and shared abnormalities in auditory processing in schizophrenia and bipolar disorder: The impact of psychosis on attentional processes. E. I. STAHURA*; S. KANG; S. R. SPONHEIM. *VA Med. Ctr., Univ. of Minnesota, Twin Cities.*

9:00 RR15 **355.10** ● Signal processing delays disrupt covert orientation in Alzheimer's disease. C. LOCKWOOD*; H. RAFI; C. J. DUFFY. *Univ. of Rochester.*

10:00 RR16 **355.11** ● Leftward gaze shift as a compensatory strategy during recovery process after unilateral spatial neglect. Y. TAKAMURA*; T. TOMINAGA; M. IMANISHI; M. OSAKA; S. OHMATSU; S. MORIOKA; N. KAWASHIMA. *Grad. Sch. of Hlth. Science, Kio Univ., Murata Hosp., Res. Inst. of Natl. Rehabil. Ctr. for Persons with Disability.*

11:00 RR17 **355.12** Spatiotemporal distribution of the reaction time in patients with unilateral spatial neglect. N. KAWASHIMA*. *Nat'l Rehab Ctr. Japan.*

8:00 RR18 **355.13** Aberrant fronto-striatal system in adolescents with ADHD: Neural substrate of aggression. J. CHA*; J. POSNER. *Columbia University-NY State Psychiatric Inst.*

POSTER

356. Language and Brain Dynamics

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 RR19 **356.01** Brain's deactivation state and dynamical complexity predict the engaging quality of creative language production. Y. XU; K. E. SWETT; N. Y. ABDULSABUR; M. G. ERKKINEN; R. A. MAR; S. LIU; S. MARENCO*; A. R. BRAUN. *Natl. Inst. on Deafness and Other Communication Disorders, Natl. Inst. of Hlth., Vanderbilt Univ., Massachusetts Gen. Hosp., York Univ., NIMH/CBDB.*

9:00 RR20 **356.02** Brain dynamics predict immersion into stories: A simultaneous fMRI-EEG study of narrative engagement. S. B. DEMIRAL*; S. LIU; Y. XU; H. CHOW; M. PUERTOLAS LOPEZ; R. MAR; A. BRAUN. *NIH, York Univ.*

10:00 RR21 **356.03** Changes in event-related electrocorticographic effective connectivity with behavioral priming during picture naming. H. BENZ*; A. KORZENIEWSKA; S. J. GOTTS; M. S. FIFER; N. V. THAKOR; A. MARTIN; N. E. CRONE. *Johns Hopkins Univ. Sch. of Med., NIH.*

11:00 RR22 **356.04** Classification of place of articulation from human sensorimotor cortex using electrocorticographic microelectrodes. G. W. MILSAP*; M. GUO; A. SOARES; D. BOATMAN; N. E. CRONE; N. THAKOR. *Johns Hopkins Univ., Hebei Univ. of Technol., Federal Univ. of Uberlandia, Johns Hopkins Univ., Singapore Inst. for Neurotechnology (SINAPSE).*

8:00 RR23 **356.05** Repetition suppression and repetition enhancement of electrocorticographic high gamma activity during repeated picture naming. M. S. FIFER*; S. J. GOTTS; H. L. BENZ; A. KORZENIEWSKA; N. V. THAKOR; A. MARTIN; N. E. CRONE. *Johns Hopkins Univ., NIH, Johns Hopkins Univ., Natl. Univ. of Singapore.*

9:00 RR24 **356.06** The impact of lexical retrieval on high-gamma effective connectivity in human language networks. A. KORZENIEWSKA*; S. DALVIN; G. MILSAP; A. FLINKER; N. E. CRONE. *Johns Hopkins Univ., New York Univ.*

10:00 RR25 **356.07** ▲ Identifying functional subnetworks in human language tasks using electrocorticography. M. J. COLLARD*; M. S. FIFER; Y. WANG; H. L. BENZ; G. W. MILSAP; A. KORZENIEWSKA; N. V. THAKOR; N. E. CRONE. *Johns Hopkins Univ., Univ. of Maryland, Singapore Inst. for Neurotechnology (SINAPSE).*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 RR26 **356.08** Atypically rightward cortical asymmetry and language deficits in male adults with autism. D. L. FLORIS*; M. LAI; M. V. LOMBARDO; C. ECKER; F. KURTH; B. CHAKRABARTI; S. J. WHEELWRIGHT; A. N. V. RUIGROK; E. T. BULLMORE; M. RC AUTISM IMAGING MULTICENTRE STUDY CONSORTIUM; D. G. M. MURPHY; S. BARON-COHEN; J. SUCKLING. *Autism Res. Centre, Univ. of Cambridge, Dept. of Psychiatry, Natl. Taiwan Univ. Hosp. and Col. of Med., Univ. of Cyprus, Sackler Inst. for Translational Neurodevelopment, Inst. of Psychiatry, King's Col. London, Univ. of California Los Angeles, Sch. of Psychology and Clin. Language Sciences, Ctr. for Integrative Neurosci. and Neurodynamics, Univ. of Reading,, Brain Mapping Unit, Dept. of Psychiatry, Univ. of Cambridge, Cambridgeshire and Peterborough NHS Fndn. Trust, Inst. of Psychiatry (IoP) at King's College, London, the Autism Res. Centre, Univ. of Cambridge, and the Autism Res. Group, Univ. of Oxford.*

8:00 RR27 **356.09** Oscillatory mechanisms of ambiguous speech parsing. A. KÖSEM*; A. BASIRAT; L. AZIZI; V. VAN WASSENHOVE. *INSERM-CEA Cognitive Neuroimaging Unit, CEA, DSV/I2BM, NeuroSpin Ctr., Univ. Paris-Sud, Cognitive Neuroimaging Unit, Univ. Lille 2, Inst. d'orthophonie Gabriel Decroix.*

9:00 RR28 **356.10** Concreteness effect in semantic processing of spanish words: An ERP study. V. PATIÑO-TORREALVA; A. LEHMANN; J. FERRER-ARAGÓN; B. TELLEZ-ALANIS*. *CITPSI-UAEM, McGill Univ., Fac Psy, UAEM.*

10:00 RR29 **356.11** Investigations on eeg coherence in foreign language learning. P. SUBBARAJ*; K. ANANDAN; N. BALAJI; A. ANJOOM. *SSN Col. of Engin.*

11:00 RR30 **356.12** ▲ Transcranial direct current stimulation of left frontopolar cortex augments creativity in a verb generation task. K. A. SPIEGEL*; E. J. GIANGRANDE; A. E. GREEN; P. E. TURKELTAUB. *Georgetown Univ. Med. Ctr., Georgetown Univ., Georgetown Univ., MedStar Natl. Rehabil. Hosp.*

8:00 RR31 **356.13** Task-induced deactivations associated to intelligible speech. D. RODRIGUEZ MORENO*; N. D. SCHIFF; J. HIRSCH. *Yale Sch. of Medicine, Brain Function Lab., Weill Med. College, Cornell Univ., Yale Sch. of Medicine, Brain Function Lab.*

9:00 RR32 **356.14** Constituent structure representations revealed with intracranial data. M. J. NELSON*; I. EL KAROUI; V. RANGARAJAN; C. PALLIER; J. PARVIZI; L. COHEN; L. NACCACHE; S. DEHAENE. *INSERM-CEA Cognitive Neuroimaging Unit, NeuroSpin Center, Inst. of BioImaging Commissariat à l'Energie Atomique, Stanford Human Intracranial Cognitive Electrophysiology Program (SHICEP), Inst. du Cerveau et de la Moelle épinière, INSERM U1127, CNRS UMR7725, UPMC, INSERM-CEA Cognitive Neuroimaging Unit, Univ. Paris 11, Inst. du Cerveau et de la Moelle épinière, INSERM U1127, CNRQS UMR7725, UPMC, AP-HP Groupe hospitalier Pitié-Salpêtrière, Univ. Paris 6, Univ. of Cambridge, Collège de France.*

10:00 RR33 **356.15** Mediated priming is driven by semantic matching in Spanish speakers. F. A. ROBLES*; E. SÁNCHEZ; N. ARIAS-TREJO; R. CARRILLO; O. MARRUFO; M. RODRÍGUEZ; J. SILVA-PEREYRA. *CENTRO UNIVERSITARIO DEL NORTE, Univ. Nacional Autónoma de México, Inst. Nacional de Neurología, Univ. Nacional Autónoma de México.*

11:00 RR34 **356.16** Regional differences in dendritic morphology of medium spiny striatal neurons in Foxp2 mice are influenced by the T302N substitution. I. BICANIC; U. BORNSCHEIN; C. WINTER; J. RUMMEL; W. HEVERS*; W. ENARD; S. PAABO; Z. PETANJEK. *Univ. of Zagreb, Sch. of Med., Max Planck Inst. For Evolutionary Anthrop., Tech. Univ. Dresden, Ludwig-Maximilian Univ.*

8:00 RR35 **356.17** Multidimensional imaging of affective prosodic perception. D. I. LEITMAN*; C. J. EDGAR; L. BLOY; S. LIU; T. P. K. ROBERTS. *Univ. Pennsylvania, Children's Hosp. / Univ. of Pennsylvania.*

9:00 RR36 **356.18** Cross-Modal reorganization of degenerated occipital white matter in late-blind humans - A diffusion imaging study. S. DIETRICH; I. HERTRICH; H. ACKERMANN*. *Univ. of Tuebingen.*

10:00 RR37 **356.19** Applying event-related causality to human electrocorticogram recordings to infer functional connectivity during a word stem completion task. M. WHALEY*; C. KADIPASAOGLU; C. CONNER; N. TANDON; S. COX. *Rice Univ., UT Hlth. Sci. Ctr.*

11:00 RR38 **356.20** Functional significance of the electrocorticographic auditory responses in the precentral gyrus. K. TANJI*; K. SAKURADA; H. FUNIU; K. MATSUDA; T. KAYAMA; K. SUZUKI. *Yamagata Univ., Yamagata Univ., Yamagata Univ.*

8:00 RR39 **356.21** Structural properties of the arcuate and uncinate fasciculus modulate functional language lateralization. S. OCKLENBURG*; L. SCHLAFFKE; K. HUGDAHL; R. WESTERHAUSEN. *Ruhr-University of Bochum, Ruhr-University Bochum, Univ. of Bergen.*

9:00 RR40 **356.22** Accuracy of high gamma activity and transcranial magnetic stimulation in language mapping. A. BABAJANI-FEREMI*; S. NARAYANA; R. REZAIE; A. F. CHOUDHRI; S. P. FULTON; F. A. BOOP; J. W. WHELESS; A. C. PAPANICOLAOU. *The Univ. of Tennessee Hlth. Sci. Ctr., The Univ. of Tennessee Hlth. Sci. Ctr., The Univ. of Tennessee Hlth. Sci. Ctr., The Univ. of Tennessee Hlth. Sci. Ctr.*

10:00 RR41 **356.23** A neural network method for simulating the time-course of simple context-sensitive word recognition simultaneously in the time and frequency domains. B. C. ARMSTRONG*; M. RUIZ-BLONDET; S. LASZLO. *Basque Ctr. On Cognition, Brain, and Language, State Univ. of New York, Binghamton.*

11:00 RR42 **356.24** An fMRI study of visual motion processing in area V5/MT in typical readers. C. TAYLOR*; O. OLULADE; M. LUETJE; G. EDEN. *Georgetown Univ., Georgetown Univ.*

8:00 RR43 **356.25** Orthographic and phonological selectivity in dyslexia: An fMRI study. L. S. GLEZER*; X. JIANG; G. F. EDEN; M. M. LUETJE; E. M. NAPOLIELLO; J. KIM; M. RIESENHUBER. *Georgetown Univ. Med. Ctr., Georgetown Univ. Med. Ctr.*

9:00 RR44 **356.26** Overlap of music and language processing areas: fMRI study of anatomical and functional characteristics of absolute pitch possessor. K. USUI*; K. TERADA; N. USUI; Y. ARAKI; K. MATSUDA; H. HOSOYAMA; Y. KASHIDA; T. TOTTORI; K. BABA; Y. INOUE. *Natl. Epilepsy Center, Shizuoka Inst. of Ep.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 RR45 **356.27** Concept encoding in individual neurons of human motor cortex. Y. YANG*; M. W. DICKEY; J. FIEZ; B. MURPHY; T. MITCHELL; J. COLLINGER; E. TYLER-KABARA; M. BONINGER; W. WANG. *Univ. of Pittsburgh, Dept. of Veterans Affairs Healthcare Syst., Queen's Univ., Carnegie Mellon Univ.*

11:00 RR46 **356.28** The organization of words and environmental sounds in memory. K. HENDRICKSON*; M. WALENSKI; M. FRIEND; T. LOVE. *SDSU / UCSD.*

8:00 RR47 **356.29** Neural correlates of narrative versus expository comprehension in children: an fMRI study of text genre and comprehension modality. K. SWETT*; A. SEFCIK; S. BURNS; S. A. PETRILL; L. CUTTING. *Vanderbilt Univ., Ohio State Univ.*

POSTER

357. Human Social Cognition: Neural Mechanisms

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 RR48 **357.01** The activity of the mirror neuron system during being imitated by others. A. SATO*; S. SHIMADA. *Meiji Univ.*

9:00 RR49 **357.02** Functional connectivity between player-observer motor areas during a competitive game. S. YOKOYAMA*; M. MATSUMOTO; S. SHIMADA. *Meiji Univ.*

10:00 RR50 **357.03** Listener's positive responses recruit reward-related neural circuitry of the speaker: An fMRI study. M. SUMIYA*. *Natl. Inst. For Physiological Sci.*

11:00 SS1 **357.04** Natural motion enhances neural activity in the amygdala in response to videos of natural social scenes. K. M. GOTHARD*; P. PUTNAM; C. MOSHER; P. ZIMMERMAN. *Univ. Arizona, Col. Med., Univ. of Arizona.*

8:00 SS2 **357.05** Modulation of EEG mu and beta rhythm in the mirror neuron system to action-related sounds in a three-dimensional sound reproduction system. T. KOICHIRO*; K. UENO; S. SHIMADA. *Meiji Univ., CREST.*

9:00 SS3 **357.06** Breaking apart the social network: Distinct subregions within temporoparietal junction and posterior cingulate cortex track social behavior. A. UTEVSKY*; D. V. SMITH; V. VENKATRAMAN; S. A. HUETTEL. *Duke Univ., Rutgers Univ., Temple Univ., Duke Univ.*

10:00 SS4 **357.07** Self/other vs. how/why: Common and distinct brain activation underlying action construals. H. KIM; J. PARK; Y. LEE; D. YI*. *Yonsei Univ., Johns Hopkins Univ.*

11:00 SS5 **357.08** The neuroscience of laughter. S. K. SCOTT*; S. EVANS; C. MCGETTIGAN. *Univ. Col. London, Univ. Col. London, Royal Holloway Univ. of London.*

8:00 SS6 **357.09** Neural basis for Interpersonal reconnection: An fMRI study. K. SAKAKI*; T. NOZAWA; R. YOKOYAMA; Y. SASAKI; R. KAWASHIMA. *Tohoku Univ. (IDAC).*

9:00 SS7 **357.10** Distinct neural populations are engaged in perception of same-race and other-race individuals' pain. S. HAN*; F. SHENG; X. HAN. *Dept. of Psychology, Peking Univ., Peking Univ.*

10:00 SS8 **357.11** The Interaction Rating Scale Advanced (IRSA) as an index of social competence development. T. ANME*; E. TANAKA; K. TOKUTAKE; T. WATANABE; Y. MOCHIZUKI; S. OKAZAKI; N. SADATO. *Univ. of Tsukuba, Natl. Inst. for Physiological Sci.*

11:00 SS9 **357.12** Lateralized and opposing effects of vasopressin on the anterior insula response to positive and negative social interactions among human males. X. CHEN*; P. HACKETT; A. DEMARCO; C. FENG; J. RILLING. *Emory Univ., Emory Univ., Univ. of Kansas, Emory Univ.*

8:00 SS10 **357.13** Personality and neural correlates of skilled empathizers. B. W. HAAS*; M. BROOK; L. REMILLARD; A. ISHAK; I. W. ANDERSON; M. M. FILKOWSKI. *Univ. of Georgia, Northwestern Univ., Univ. of Georgia.*

9:00 SS11 **357.14** What does the amygdala contribute to salient social stimuli? O. DAL MONTE*; D. R. LUCAS, III; P. L. NOBLE; E. A. MURRAY; B. B. AVERBECK. *Natl. Inst. of Mental Hlth.*

10:00 SS12 **357.15** Early specialised processing of infant vocalisations in the adult brain. K. S. YOUNG*; C. E. PARSONS; E. JEGINDO; M. W. WOOLRICH; T. J. VAN HARTEVELT; A. STEVNER; A. STEIN; M. L. KRINGELBACH. *UCLA, Univ. of Oxford, Aarhus Univ.*

11:00 SS13 **357.16** Joint attention modulates posterior superior temporal sulcus (pSTS) activity and subsequent recognition memory for cued objects. K. VELNOSKEY*; S. KANWAL; R. LUDLUM; E. REDCAY. *Univ. of Maryland, Georgetown Univ.*

POSTER

358. Prefrontal Cortex I

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 SS14 **358.01** ● Role of prefrontal cortex in the cognitive-enhancing effects of modafinil in a rodent self-ordered sequencing task. B. GAMALLO; J. LEI; L. M. SAKSIDA; T. J. BUSSEY; A. C. MAR*; T. W. ROBBINS. *Univ. of Cambridge.*

9:00 SS15 **358.02** ● Cognitive enhancement in the neonatal methylazoxymethanol acetate (MAM-E17) rat model on a rodent touchscreen continuous performance test. M. LEI; L. M. SAKSIDA; T. J. BUSSEY; A. C. MAR; T. W. ROBBINS*. *Peking Univ., Univ. Cambridge.*

10:00 SS16 **358.03** Scaling of expectancy-linked ramping activity by outcome probability in the anterior cingulate cortex. J. M. HYMAN*; C. B. HOLROYD; J. K. SEAMANS. *Univ. British Columbia, Univ. of Victoria, Univ. of British Columbia.*

11:00 SS17 **358.04** Evaluation of the adjustments of the neural representations of serial ordered items in prefrontal cortex during short practice in a ranks comparison task. E. BRUNAMONTI*; V. MIONE; F. DI BELLO; A. GENOVESIO; P. PANI; S. FERRAINA. *Sapienza Univ.*

8:00 SS18 **358.05** Evaluating reward value using consummatory and instrumental licking procedures in rats. L. M. AMARANTE*; A. L. KALAFATELI; P. OUTHENSACKDA; M. A. PARENT; M. LAUBACH. *John B Pierce Lab., Yale Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 SS19 **358.06** Three-dimensional modeling of light and heat propagation during fiber optic illumination of the brain. J. M. STUJENSKE*; T. SPELLMAN; J. A. GORDON. *Neurobio. and Behavior, Columbia Univ., Columbia Univ., Columbia Univ.*

10:00 SS20 **358.07** Optical activation of dorsal raphe serotonin neurons is sufficient to facilitate waiting for delayed rewards. M. S. FONSECA*; M. MURAKAMI; Z. F. MAINEN. *Champalimaud Ctr. for the Unknown.*

11:00 SS21 **358.08** Neuronal representation in the orbitofrontal cortex across choice contexts: Stability and remapping. J. XIE*; C. PADOA-SCHIOPPA. *Washington Univ. In St. Louis.*

8:00 SS22 **358.09** Temporal integration in a human and rat vibrotactile discrimination task: A simple model unifies psychometric functions and neuronal codes. A. FASSIHI; A. AKRAMI; V. H. SCHÖNFELDER; M. E. DIAMOND*. *Intl. Sch. for Advanced Studies, Princeton Univ., Intl. Sch. For Advanced Studies.*

9:00 SS23 **358.10** Time investment in a decision as a measure of confidence in humans and rats. P. MASSET*; J. SANDERS; A. KEPECS. *Cold Spring Harbor Lab.*

10:00 SS24 **358.11** Direct hippocampal-prefrontal input supports the encoding of spatial information during a working memory task. T. SPELLMAN*; M. RIGOTTI; S. FUSI; J. GOGOS; J. GORDON. *Columbia Univ.*

11:00 SS25 **358.12** ● Haploinsufficiency of ZDHHC8, a gene within the 22q11 microdeletion, results in impairments in spatial working memory and hippocampal-prefrontal connectivity. M. TAMURA*; A. M. ROSEN; T. J. SPELLMAN; J. A. GOGOS; J. A. GORDON. *Columbia Univ., New York State Psychiatry Inst., Columbia Univ., Columbia Univ.*

8:00 SS26 **358.13** Auditory parametric working memory in rats - Casual role of prefrontal and posterior parietal cortices. A. AKRAMI*; C. D. BRODY. *Princeton Neurosci. Inst. (PNI), Princeton Univ., Howard Hughes Med. Inst.*

9:00 SS27 **358.14** Rhythms and reward: Theta rhythms in the medial prefrontal cortex encode subjective value. M. LAUBACH*; M. S. CAETANO; N. K. HORST; M. A. PARENT; L. M. AMARANTE; L. HARENBERG; B. LIU; P. OUTHENSACKDA; D. WEIKUM. *Yale Univ., John B. Pierce Lab.*

10:00 SS28 **358.15** Cellular resolution functional imaging of layer 2/3 cortical neurons in the rat during a visual accumulation of evidence task. B. B. SCOTT*; C. M. CONSTANTINOPLE; J. C. ERLICH; C. D. BRODY; D. W. TANK. *Princeton Univ., Princeton Univ., HHMI.*

11:00 SS29 **358.16** ▲ Anatomical mapping and optogenetic single opsin projection-targeted inhibition and excitation in the rat decision-making circuit. D. LONDON*; C. KOPEC; C. BRODY. *Princeton Univ.*

8:00 SS30 **358.17** Task-dependent speed accuracy-tradeoffs in olfaction. M. I. VICENTE*; A. G. MENDONCA; Z. F. MAINEN. *Champalimaud Ctr. for the Unknown.*

9:00 SS31 **358.18** ● A novel touchscreen task to study the neuropharmacology of visual reversal learning in rats: Effects of lateral orbitofrontal cortex manipulations and of systemic treatment with the dopamine D2/D3 receptor agonist, quinpirole. J. ALSIO*; R. A. WANG; S. RAHMAN; S. A. DAM; L. M. SAKSIDA; T. J. BUSSEY; A. C. MAR; T. W. ROBBINS. *Univ. of Cambridge.*

10:00 SS32 **358.19** ● Reciprocal thalamo-prefrontal and prefronto-thalmic projections support spatial working memory. S. S. BOLKAN*; S. Z. PARNAUDEAU; T. J. SPELLMAN; A. CLARK; J. A. GORDON; C. KELLENDONK. *Columbia Univ., Columbia Univ., Columbia Univ., Columbia Univ.*

11:00 SS33 **358.20** Ventral hippocampal input to medial prefrontal cortex is necessary for anxiety behavior and anxiety-induced theta synchrony. N. PADILLA*; G. M. PIERCE; D. BLACKMAN; T. SPELLMAN; J. A. GORDON. *Columbia Univ., Barnard Col., Columbia Univ., Columbia Univ.*

8:00 SS34 **358.21** Disrupting inhibition in posterior parietal cortex reduces decision accuracy. K. ODOEMENE*; A. M. BROWN; M. T. KAUFMAN; A. K. CHURCHLAND. *Cold Spring Harbor Lab., Watson Sch. of Biol. Sci.*

9:00 SS35 **358.22** Automated behavioral training of rats on a visual accumulation of evidence task during voluntary head restraint. C. M. CONSTANTINOPLE*; B. B. SCOTT; J. C. ERLICH; D. W. TANK; C. D. BRODY. *Princeton Univ., HHMI.*

10:00 SS36 **358.23** 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 Seattle, Princeton Univ., Howard Hughes Med. Inst., Stanford Univ., Howard Hughes Med. Inst.*

11:00 SS37 **358.24** Inhibiting prefrontal inputs to the amygdala leads to fear generalization. E. LIKHTIK*; J. M. STUJENSKE; M. A. TOPIWALA; T. SPELLMAN; J. A. GORDON. *Columbia Univ., Columbia Univ., Res. for Mental Hyg. Fndn., Columbia Univ.*

8:00 SS38 **358.25** Dorsal premotor cortex neurons of non-human primates are modulated by inferential reasoning. V. MIONE*; E. BRUNAMONTI; P. PANI; A. GENOVESIO; F. DI BELLO; S. FERRAINA. *Sapienza Rome Univ.*

9:00 SS39 **358.26** Low noise correlations in orbitofrontal cortex during economic choice. K. CONEN*; C. PADOA-SCHIOPPA. *Washington Univ. In St Louis.*

10:00 SS40 **358.27** The representational content of rat orbitofrontal cortex during outcome anticipation. J. HIROKAWA*; A. VAUGHAN; A. KEPECS. *Cold Spring Harbor Lab.*

11:00 SS41 **358.28** ▲ Molecular rescue of ventral hippocampal-medial prefrontal cortical synchrony deficit in Dgcr8 haploinsufficient mice. S. SCHAMILOGLU; A. ROSEN*; T. A. ATKIN; T. J. SPELLMAN; M. KARAYIORGOU; J. A. GOGOS; J. A. GORDON. *Columbia Univ., Columbia Univ.*

8:00 SS42 **358.29** Human specific goal activity in the monkey prefrontal cortex. R. FALCONE; E. BRUNAMONTI; S. FERRAINA; A. GENOVESIO*. *Sapienza Univ., Natl. Inst. of Mental Hlth.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

359. Rodent Learning and Memory

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 SS43 **359.01** ● Influences of aging, reduced mastication and environmental impoverishment on the spatial learning and memory and on the open field exploratory activity in murine model. M. C. SOSTHENES*; F. C. C. S. MENDES; M. N. ALMEIDA; A. P. G. FELÍCIO; A. C. FADEL; D. J. SILVA; T. G. BORRALHO; R. P. SILVA; J. M. AMORIM; A. C. CEZNE; J. BENTO-TORRES; P. F. VASCONCELOS; V. H. PERRY; C. W. P. DINIZ. *Univ. Federal Do Pará, Ctr. Universitário do Pará, Univ. Federal do Pará, Inst. Evandro Chagas, Univ. of Southampton.*

9:00 SS44 **359.02** ● Effects of a bioactive nutrient on memory and cognitive flexibility in a rodent model of aging. J. M. GULLEY*; E. R. HANKOSKY; L. A. RUVOLA; L. K. SHERRILL; C. J. KEELEY; R. A. PATEL; M. A. GHANE; L. R. HAMMERSLAG; T. KIM; D. G. KOUGIAS; J. M. JURASKA. *Univ. Illinois, Urbana-Champaign, Univ. Illinois, Urbana-Champaign.*

10:00 SS45 **359.03** ● The effects of daily supplementation with a bioactive nutrient on age-related declines in working memory in male and female rats. J. M. JURASKA*; L. K. SHERRILL; L. A. RUVOLA; N. M. KOFSKY; C. J. KEELEY; M. A. GHANE; E. R. HANKOSKY; L. R. HAMMERSLAG; T. KIM; D. G. KOUGIAS; J. M. GULLEY. *Univ. of Illinois, Univ. of Illinois, Urbana-Champaign.*

11:00 SS46 **359.04** The role of ΔFosB in hippocampal function and synaptic structural plasticity. A. L. EAGLE*; J. BRÜCKNER; P. A. GAJEWSKI; K. C. MOON; H. WANG; A. J. ROBISON. *Michigan State Univ., Michigan State Univ., Michigan State Univ.*

8:00 SS47 **359.05** The effects of post-acquisition blockade of GluN2B-containing NMDA receptors on “forgetting” and subsequent reversal learning in the Morris water maze. K. SHINOHARA*; T. HATA. *Doshisha Univ.*

9:00 SS48 **359.06** Diet containing the ether phospholipids, plasmalogens, increases hippocampal BDNF expression and the memory in adult mice. M. HOSSAIN*; K. MIAKE; T. KATAFUCHI. *Kyushu University, Dept of Integrative Physiol., Ctr. Res. Institute, Marudai Food Co. Limited.*

10:00 SS49 **359.07** The effect of attenuating neurotransmitter release in hippocampal newborn neurons on memory tasks. H. ASAI*; T. J. MCHUGH; T. HISATSUNE. *Tokyo Univ., RIKEN BSI.*

11:00 SS50 **359.08** The roles of endogenous Calcium/ Calmodulin-dependent kinase 2 inhibitors in learning and memory. F. VIGIL; K. MIZUNO; W. LUCCHESI; V. VALLS COMAMALA; K. P. GIESE*. *King’s Col. London, King’s Col. London, King’s Col. London.*

8:00 SS51 **359.09** Heightened noradrenergic signalling recruits the nitric oxide pathway in the hippocampus to induce generalized fear expression in rats. L. GAZARINI*; C. A. J. STERN; A. C. VANVOSSEN; L. J. BERTOGLIO. *Univ. Federal De Santa Catarina.*

9:00 SS52 **359.10** The long non-coding rna malat-1 is involved in learning and memory formation. S. T. MOTLEY*; M. C. GUZMAN-KARLSSON; I. B. ZOVKIC; B. E. POWERS; J. J. MINICH; H. L. SMITH; A. J. KENNEDY; E. E. SWAYZE; S. A. HOFSTADLER; J. J. DAY; D. J. ECKER; J. D. SWEATT; T. P. MICHAEL. *Ibis Biosciences, Abbott Labs., Univ. of Alabama at Birmingham, Isis Pharmaceuticals.*

10:00 SS53 **359.11** Glur2 mediated amelioration of synaptic plasticity changes in fear associated memories. S. BHATTACHARYA; M. BUABEID; D. BHATTACHARYA; J. BLOEMER; D. KATZ; A. ALHOWAIL; M. DHANASEKARAN; M. ESCOBAR; V. D. SUPPIRAMANIAM*. *Auburn Univ., Auburn Univ.*

11:00 SS54 **359.12** Hippocampal dendritic morphology and spatial memory in a model of vesicular acetylcholine transporter overexpression. P. M. NAGY*; K. MARKHAM-COULTES; I. AUBERT. *Sunnybrook Res. Inst., Univ. of Toronto.*

8:00 SS55 **359.13** CREB SUMOylation by the E3 ligase PIAS1 enhances spatial memory. Y. CHEN*; W. HSU; Y. MA; D. J. TAI; E. H. LEE. *Academia Sinica, Natl. Def. Med. Ctr.*

9:00 SS56 **359.14** The transcription activator CAMTA1 regulates long-term memory in mice. C. BAS-ORTH; Y. TAN; A. M. M. OLIVEIRA; H. BADING*. *IZN At the Univ. of Heidelberg.*

10:00 SS57 **359.15** Histone methylation and ubiquitination are critical epigenetic regulators of memory reconsolidation. T. J. JAROME*; A. O’BEIRNE; L. M. HOLT; D. L. ROSS; F. D. LUBIN. *Univ. of Alabama At Birmingham.*

11:00 SS58 **359.16** High fat diets negatively impact rodent learning and memory early in development and is counteracted by enriched environments. I. C. SUMAYA*; T. HUNTER; S. HUSSAIN; A. SUTER; K. BARNES; M. CHAVEZ; K. BURFORD; P. ACOSTA. *California State Univ., Bakersfield.*

8:00 SS59 **359.17** The effect of hippocampal and/or striatal injection of α-synuclein fibrils on novel object and novel place recognition in rats. N. NOURAEI*; R. K. LEAK; D. A. JOHNSON. *Duquesne Univ., Duquesne Univ.*

POSTER

360. Cortical and Hippocampal Circuits: Spatial Navigation II

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 SS60 **360.01** Can head direction cells use self-motion cues or context to disambiguate identical environmental sub-compartments. P. JACOB; Y. LOZANO NAVARRO; D. OVERINGTON; K. J. JEFFERY*. *UCL.*

9:00 SS61 **360.02** Mouse behavior in a spatial navigation task: Exploration, alternation, and perseveration. C. R. FLYNN; K. T. MORIARTY; A. C. BASU*. *Col. of the Holy Cross.*

10:00 SS62 **360.03** Activity of identified presubiculum neurons in relation to head-direction and theta oscillations in freely moving rats. J. J. TUKKER*; Q. TANG; A. BURGALOSSI; M. BRECHT. *Charité Universitätsmedizin Berlin, Bernstein Ctr. for Computat. Neuroscience, Humboldt Univ., Werner Reichardt Ctr. for Integrative Neurosci. (CIN).*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 SS63 **360.04** Phase precession reduced by systemic blockade of muscarinic receptors in rats. E. L. NEWMAN*; E. A. PETTER; S. N. GILLET; J. R. CLIMER; M. E. HASSELMO. *Ctr. For Memory and Brain, Boston Univ., UCSD, Boston Univ.*

8:00 SS64 **360.05** The hexagonal grid code as a multi-dimensional clock for space. M. B. STEMMLER*; A. MATHIS; A. V. M. HERZ. *Ludwig-Maximilians-Universität Munich, Harvard Univ.*

9:00 SS65 **360.06** The acquisition and expression of remote spatial memories formed during the juvenile period are impaired by AMPAr blockade. M. R. HOLAHAN*; K. DIXON; M. MAHDI; N. TZAKIS. *Carleton Univ.*

10:00 SS66 **360.07** Behavioral response to combined exposure of simulated microgravity and radiation. K. SANDERS*; J. BELLONE; R. MONTANARI; P. GIFFORD; R. HARTMAN; X. WEN MAO. *Loma Linda Univ., Loma Linda.*

11:00 SS67 **360.08** ● Simultaneously recorded grid cells encode a rat's location on a grid-cell tile. J. L. KUBIE*; A. A. FENTON. *SUNY Downstate Med. Ctr., NYU, SUNY Downstate Med. Ctr.*

8:00 SS68 **360.09** Exposure of adult female guinea pigs to the nerve agent VX reduces their flexibility in using different navigation strategies in the Morris water maze. J. MAMCZARZ*; E. F. R. PEREIRA; E. COLE; L. MCCOWAN; Y. ARACAVA; E. X. ALBUQUERQUE. *Univ. of Maryland Sch. of Med. Sch. Med.*

9:00 TT1 **360.10** A comparison of automated approaches used to examine microbehaviors within the Morris Water Task. D. BARTO*; D. A. HAMILTON. *UNM.*

10:00 TT2 **360.11** Medial septal GABAergic projections selectively target interneurons in the medial entorhinal cortex. A. GONZALEZ-SULSER*; D. PARTHIER; A. CANDELA; C. MCCLURE; G. SÜRMELI; M. F. NOLAN. *Univ. of Edinburgh.*

11:00 TT3 **360.12** The effect of selective entorhinal cortex lesions on spatial memory and executive control. K. BOUAYAD-GERVAIS*; Y. CHUDASAMA. *McGill Univ.*

8:00 TT4 **360.13** Megamap representation of large spaces: Analysis of attractor states and incorporation of nonspatial memories. K. R. HEDRICK*; K. ZHANG. *Johns Hopkins Univ.*

9:00 TT5 **360.14** Predictive representations in place fields facilitate navigation and reinforcement learning. K. L. STACHENFELD*; S. J. GERSHMAN; M. M. BOTVINICK. *Princeton Neurosci. Inst., MIT, Princeton Univ.*

10:00 TT6 **360.15** Corticosterone treatment enhances acquisition of a spatial memory task and increases vesicular glutamate transporter 2 mRNA in the hippocampus of adult female zebra finches. D. J. BAILEY*; Y. V. MAKEYEVA; N. L. THERN. *St. Norbert Col., St. Norbert Col.*

11:00 TT7 **360.16** Comparative genomics and behavioral analysis of wild type vs. growth hormone modified (bGH and GHA) mice: Spatial learning, memory, and signaling crosstalk. A. BASU; J. J. KOPCHICK; H. G. MCFARLANE*. *Edison Biotech. Inst., Ohio Univ., Kenyon Col.*

8:00 TT8 **360.17** Effect of dorsal or ventral hippocampus inactivation on goal-directed spatial navigation in rats and computational models. M. CONTRERAS*; M. LLOFRIU; A. WEITZENFELD; J. FELLOUS. *Univ. of Arizona, Univ. of South Florida.*

9:00 TT9 **360.18** Male C57BL/6J mice rely on relative navigational search strategy for goal location in a novel land-based task. J. C. LORA*; R. W. STACKMAN JR. *Florida Atlantic Univ., Florida Atlantic Univ.*

10:00 TT10 **360.19** ● EEG in hippocampus of lesioned and control C57BL/6J mice exposed to different gravity conditions. S. MASNEUF; A. CHERNINSKYI; O. ULLRICH; H. LIPP; D. P. WOLFER; G. COLACICCO*. *Univ. of Zurich, Inst. of Anat.*

11:00 TT11 **360.20** Two-photon imaging of CA2 with cellular resolution in behaving mice. E. B. HAN*; D. A. DOMBECK. *Washington Univ. in St. Louis Sch. of Medic, Northwestern Univ.*

8:00 TT12 **360.21** HuD mediates the establishment, maturation and function of cortical circuits *in vivo*. E. DEBOER*; R. AZEVEDO; T. VEGA; J. BRODKIN; G. WAGNER; M. RASIN. *Children's Hosptial of Philadelphia, Rutgers Univ., U.C. Berkeley, Behavioral Instruments, Rutgers, Robert Wood Johnson Med. Sch.*

9:00 TT13 **360.22** Hippocampal preplay is modulated by the behavioural relevance of seen yet unvisited environments. F. OLAFSDOTTIR*; C. J. BARRY; A. B. SALEEM; D. HASSABIS; H. J. SPIERS. *Univ. Col. London, Univ. Col. London, Univ. Col. London, Univ. Col. London.*

10:00 TT14 **360.23** Formation of the grid fields under supervision of early hippocampal place cells in a model with self-organizing continuous attractors. A. V. SAMSONOVICH*; A. STEPANYUK. *George Mason Univ., Bogomoletz Inst. of Physiol.*

11:00 TT15 **360.24** Role of the dorsolateral striatum in the acquisition and expression of a response strategy in the rodent submerged T-maze. J. S. ASEM*; F. L. SCHIFFINO; P. C. HOLLAND. *Johns Hopkins Univ.*

8:00 TT16 **360.25** Maintained sense of direction between environments in the morris water task is dependent on vestibular cues. B. J. CLARK*; N. S. HONG; D. BETTENSON; R. J. MCDONALD. *Univ. of Lethbridge.*

POSTER

361. Prefrontal and Striatal Systems I

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 TT17 **361.01** Examination of neural encoding in Medial Dorsal Striatum during rule shifting. G. B. BISSONETTE*; D. A. BUTTS; M. R. ROESCH. *Univ. of Maryland, Univ. of Maryland, Univ. of Maryland.*

9:00 TT18 **361.02** Impact of response inhibition on activity in frontal cortex and dorsal striatum. D. BRYDEN*; A. BURTON; M. ROESCH. *Univ. of Maryland Col. Park.*

10:00 TT19 **361.03** The dopamine type 2 receptor in the dorsal striatum mediates integration of perceptual and memory information in decision making. E. LEE*; O. DAL MONTE; B. B. AVERBECK. *Unit on Learning and Decision Making, Lab. of Neuropsychology, NIMH, NIH.*

11:00 TT20 **361.04** Region-specific glutamatergic and cholinergic interactions in sub-compartments of the dorsal striatum. W. M. HOWE*; R. KOZAK. *Pfizer, INC.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 TT21 **361.05** ▲ L-DOPA administration induces nitrosative stress in nigro-striatal-cortical pathway of rats with a 6-OHDA lesion. G. RAMÍREZ GARCÍA*; V. PALAFOX SÁNCHEZ; I. LIMÓN PÉREZ DE LEÓN. *Lab. De Neurofarmacología.*

9:00 TT22 **361.06** The proteome of pyramidal cells: Application of proteomics to elucidating types of cortical neurons. M. J. M. MURPHY*; R. M. CAPRIOLI; A. Y. DEUTCH. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr.*

10:00 TT23 **361.07** Dendritic spine morphology of target-specific pyramidal cells in the dopamine-denervated prefrontal cortex. L. HERRERA; H. WANG; A. Y. DEUTCH*. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr.*

11:00 TT24 **361.08** Optimal decisions in an uncertain reward context: Behavioral analysis and neural correlates of target choices in the monkey striatum. K. MARCHE; A. BELMALIH; E. PROCYK; P. APICELLA*. *Inst. De Neurosciences De La Timone, CNRS Aix Marseille Univ., Inst. Cellules Souches et Cerveau, INSERM.*

8:00 TT25 **361.09** Corticostriatal disconnection and setting-dependent alterations of exploration / exploitation balance after neonatal dopamine depletion. B. Y. BRAZ*; G. L. GALIÑANES; I. R. E. TARAVINI; J. E. BELFORTE; M. G. MURER. *Neural Circuits Physiol. Lab, IFIBIO, FMED, UBA, ININFA, FFyB, UBA.*

9:00 TT26 **361.10** Investigating the neuronal mechanism of self-agency in rhesus monkeys. K. TODA*; G. K. ADAMS; J. GARIEPY; M. L. PLATT. *Duke Univ., Japan Society for the Promotion of Sci., Duke Univ., Duke Univ.*

10:00 TT27 **361.11** ▲ Optogenetic stimulation of striatonigral neurons during operant action timing. R. A. BARTHOLOMEW*; M. A. ROSSI; C. T. SHOEMAKER; T. SUKHARNIKOVA; H. H. YIN. *Duke Univ.*

11:00 TT28 **361.12** The role of striatal subregions in reinforcement learning process and reward prediction error using excitotoxic lesion in male C57/Bl6 mice. Y. LIU*; C. CHEN; W. LAI. *Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ.*

8:00 TT29 **361.13** Involvement of dopamine D2L receptor and its signaling in cognitive learning. M. MORITA*; T. SASAOKA; Y. WANG; A. SAWA; T. HIKIDA. *Kyoto Univ. Grad. Sch. of Med., Brain Res. Insititute, Niigata Univ., Univ. of Illinois, Johns Hopkins Univ. Sch. of Med.*

9:00 TT30 **361.14** A pathophysiological mechanism and treatment strategy for autism. L. J. DUFFNEY*; P. ZHONG; E. MATAS; J. WEI; J. CHENG; D. M. DIETZ; E. J. NESTLER; Z. YAN. *SUNY Buffalo, SUNY Buffalo, Icahn Sch. of Med. at Mount Sinai.*

10:00 TT31 **361.15** Comprehensive examination of corticostriatal projections in the mouse brain. H. HINTIRYAN*; N. N. FOSTER; M. BAY; I. BOWMAN; B. ZINGG; L. GOU; M. S. BIENKOWSKI; M. Y. SONG; S. YAMASHITA; A. W. TOGA; H. DONG. *Univ. of Southern California (USC), INI, Univ. of Southern California (USC), Inst. for Neuroimaging and Informatics (INI), Univ. of Southern California (USC), Zilkha Neurogenetic Inst. (ZNI).*

11:00 TT32 **361.16** Developmental origin and function of a mesocortical inhibitory circuit. S. BLAESS*; A. KABANOVA; M. PABST; M. LORKOWSKI; O. BRAGANZA; N. NIKBAKHT; R. MUSGROVE; D. A. DI MONTE; M. SAUVAGE; H. BECK. *Univ. of Bonn, Univ. of Bonn, Univ. of Bochum, German Ctr. for Neurodegenerative Dis.*

8:00 TT33 **361.17** Multiple memory systems: Medial caudate and higher-order habit formation. J. PISCOPELLO; B. D. DEVAN*. *Lab. of Comparative Neuropsychology.*

9:00 TT34 **361.18** Relationship between muscarinic cholinergic system and immediate early gene expression in place and response learning. J. C. SOARES*; B. B. ANTONIO; T. L. FERREIRA; M. G. M. OLIVEIRA. *Univ. Federal de São Paulo, Univ. Federal do ABC.*

10:00 TT35 **361.19** Optogenetic activation of the corticostriatal circuit inhibits chronic pain. *T. R. MANDERS, M. LEE, S. EBERLE, J. D'AMOUR, S. CHEN, R. FROEMKE, J. WANG; Anesthesiol., *New York Univ., New York, NY*

11:00 TT36 **361.20** Gender dependent effects of perinatal stress exposure on pyramidal neurons of the medial prefrontal cortex. E. ULUPINAR*; E. SOZTUTAR; E. COLAK. *Eskisehir Osmangazi Univ., Hlth. Sci. Inst., Eskisehir Osmangazi Univ.*

8:00 TT37 **361.21** Outcome anticipation, but not outcome feedback, activity in the prefrontal cortex guides behavioral adaptation. A. DEL ARCO*; Y. KIM; J. PARK; J. WOOD; B. MOGHADDAM. *Univ. of Pittsburgh, Univ. Complutense.*

9:00 TT38 **361.22** Expressing designer receptors exclusively activated by designer drags on the frontostriatal projection neurons in the primate brain using double viral vector transfection. M. OGUCHI*; M. OKAJIMA; S. TANAKA; M. KOIZUMI; T. KIKUSUI; N. ICHIHARA; S. KATO; K. KOBAYASHI; M. SAKAGAMI. *Tamagawa Univ., Grad. Sch. of Arts and Sciences, The Univ. of Tokyo, Sch. of Vet. Medicine, Azabu Univ., Dept. of Mol. Genetics, Inst. of Biomed. Sciences, Fukushima Med. Univ.*

10:00 TT39 **361.23** ▲ Impact of adolescent social defeat stress on enduring cognitive effects from early life stress: A preliminary study in rats. N. GOLAN; T. BACKUS; F. H. HOLLAND; H. C. BRENHOUSE*. *Northeastern Univ.*

11:00 TT40 **361.24** Susceptibility to distraction and falls while performing complex movements in rats with relatively poor cholinergic-attentional control as a trait. A. J. KUCINSKI*; M. HILDEN; T. ROBINSON; M. SARTER. *Univ. of Michigan.*

POSTER

362. Reward: Dopamine I

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 TT41 **362.01** The role of the mesolimbic dopamine system and the dopamine D2 autoreceptor in motivation for food and cocaine. H. W. DE JONG*; T. J. M. ROELOFS; F. M. U. MOL; A. E. J. HILLEN; A. J. BOENDER; L. BOEKHOUDT; M. C. M. LUIJENDIJK; G. VAN DER PLASSE; L. J. M. J. VANDERSCHUREN; R. A. H. ADAN. *Brain Ctr. Rudolf Magnus, Fac. of Vet. Med.*

9:00 TT42 **362.02** Contributions of tonic and phasic dopamine to adaptive decision-making. J. R. PETTIBONE*; O. S. MABROUK; A. HAMID; R. T. KENNEDY; J. D. BERKE. *Univ. of Michigan.*

10:00 TT43 **362.03** Cocaine delivery to the fourth ventricle reveals evidence for hindbrain modulation of phasic mesolimbic dopamine signaling. A. I. GERTH*; S. FORTIN; J. CONE; H. GRILL; M. ROITMAN. *Univ. of Illinois At Chicago Dept of Psych, Univ. of Pennsylvania.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 TT44 **362.04** The motivational drive to natural rewards is modulated by prenatal glucocorticoid exposure. C. SOARES-CUNHA; B. COIMBRA; S. BORGES; M. M. CARVALHO; A. J. RODRIGUES; N. SOUSA*. *Life and Hlth. Sci. Res. Inst. (ICVS), Univ. of Minho.*

8:00 TT45 **362.05** Neuronal circuitry underlying food choice and intake in rats. G. VAN DER PLASSE*; R. VAN ZESSEN; M. C. M. LUIJENDIJK; G. M. J. RAMAKERS; R. A. H. ADAN. *Rudolf Magnus Inst., Brain Ctr. Rudolf Magnus, Univ. Med. Ctr. Utrecht.*

9:00 TT46 **362.06** Unpredictable saccharin reinforcement enhances amphetamine-induced hyperactivity and dopamine overflow in the nucleus accumbens. N. M. NEUGEBAUER*; N. BUBULA; J. BEKENY; M. ANDERSEN; I. LEE; R. STEINBERG; P. VEZINA. *Univ. Of Chicago.*

10:00 TT47 **362.07** Differentiation of pH from dopamine using rectangular pulse voltammetry (RPV). K. YOSHIMI*; A. WEITEMIER. *Juntendo Univ. Sch. Med., RIKEN BSI.*

11:00 TT48 **362.08** The reward system at rest. J. F. HUCKINS*; B. ADEYEMO; F. M. MIEZIN; T. F. HEATHERTON; S. E. PETERSEN; W. M. KELLEY. *Dartmouth Col., Washington Univ. Sch. of Med.*

8:00 TT49 **362.09** Drinking sucrose enhances sensitivity of rats to quinpirole-elicited yawning. K. SERAFINE*; T. A. BENTLEY; D. J. KILBORN; A. H. NEWMAN; C. P. FRANCE. *Univ. of Texas Hlth. Sci. Ctr. At San Antonio, Natl. Inst. on Drug Abuse, Intramural Res. Program, Univ. of Texas Hlth. Sci. Ctr. at San Antonio.*

9:00 TT50 **362.10** Direct optogenetic modulation of ventral tegmental area dopaminergic neurons affects cue-reward seeking. R. VAN ZESSEN*; G. VAN DER PLASSE; G. M. J. RAMAKERS; G. D. STUBER; R. A. H. ADAN. *Brain Ctr. Rudolf Magnus, Univ. Med. Cen, Univ. of North Carolina.*

10:00 TT51 **362.11** Infusion of D2 dopamine receptor agonist in the dorsolateral striatum eliminates lose-switch responding in rats. R. THAPA*; A. J. GRUBER; R. J. SUTHERLAND. *Univ. of Lethbridge.*

11:00 TT52 **362.12** ▲ Maternal separation in rats induces long-lasting changes in dopamine receptors in the nucleus accumbens. A. ROMANO*; M. MÉNDEZ-DÍAZ; A. RUIZ-CONTRERAS; O. PROSPÉRO-GARCÍA. *Univ. Nacional Autonoma De Mexico, Grupo de Neurociencias UNAM. Lab. De Canabinoides, Neurogenomica Cognitiva UNAM.*

8:00 TT53 **362.13** Overconsumption of sweet rewards at adolescence induced protracted down regulation of dopaminergic and opioidergic receptors at adulthood in rats. M. CADOR*; F. NANEIX; F. DARLOT; J. PAPE; E. COUTUREAU. *INCIA UMR CNRS 5287.*

9:00 TT54 **362.14** Striatal dopamine receptor correlation patterns in human obesity suggest reduced food reward and motivation with enhanced habitual opportunistic eating. K. D. HALL*; J. GUO; W. SIMMONS; P. HERSCOVITCH; A. MARTIN. *NIDDK/NIH, Laureate Inst. for Brain Res., NIH Clin. Ctr., NIMH/NIH.*

10:00 TT55 **362.15** Electrical stimulation uses sodium channel-dependent depolarization to produce exocytotic-like dopamine release and turning behavior *in vivo.* A. E. HERNANDEZ*; J. RAMOS; M. TERMINEL; E. CASTAÑEDA. *Univ. of Texas At El Paso.*

11:00 TT56 **362.16** Prefrontal regulation of phasic dopamine release in the nucleus accumbens. D. HILL*; M. A. MILLER; C. W. ATCHERLY; M. L. HEIEN; K. L. PARENT; M. J. RAUSCHER; T. YE; S. L. COWEN. *Univ. of Arizona, Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

8:00 TT57 **362.17** Individual differences in attribution of incentive salience to food cues predict dopamine neurotransmission in response to opioid drug. V. LOVIC*; C. M. VANDER WEELE; E. O'DONNELL; B. J. ARAGONA; T. E. ROBINSON. *MIT, Univ. of Michigan, MIT, Univ. of Michigan.*

9:00 TT58 **362.18** ● The role of glutamatergic synaptic transmission onto midbrain dopamine neurons in reward-related behaviors. M. HUTCHISON*; M. R. LEE; W. LU. *NIH.*

10:00 TT59 **362.19** New insight into how ventral tegmental area neurons encode information about sequences of actions. J. WOOD*; N. W. SIMON; S. KOERNER; R. E. KASS; B. MOGHADDAM. *Univ. of Pittsburgh, Carnegie Mellon Univ., Carnegie Mellon Univ.*

11:00 TT60 **362.20** Difference in the effect of dopamine uptake inhibitor and dopamine receptor agonist on the motivational behavior using runway model of intracranial self-stimulation behavior of rats. S. ESUMI*; Y. KITAMURA; Y. KAWASAKI; Y. GOMITA; T. SENDO. *Okayama Univ. Hosp.*

8:00 TT61 **362.21** Differential dopamine signaling in sign-tracker and goal-tracker rats following amphetamine. B. F. SINGER*; C. J. AUSTIN; E. E. WRIGHT; I. WOHL; B. J. ARAGONA; T. E. ROBINSON. *Univ. of Michigan, Univ. of Michigan.*

9:00 TT62 **362.22** Dopamine neurons acquire chosen value representation in a reward probability learning task. A. LAK*; W. R. STAUFFER; W. SCHULTZ. *Univ. of Cambridge.*

POSTER

363. Decision Making: Neurocircuitry

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 TT63 **363.01** Inhibitory control is impaired in aged rats independent of memory decline. P. PARK; J. D. MAYSE; E. J. PEREZ; M. GALLAGHER; P. R. RAPP*; S. LIN. *NIH, Natl. Inst. on Aging, Johns Hopkins Univ., NIH, Natl. Inst. on Aging, NIH, Natl. Inst. on Aging.*

9:00 TT64 **363.02** The corticostriatal temporal difference (CS-TD) hypothesis: An alternative to the Go/No-Go learning hypothesis for the functions of the basal ganglia in value learning. K. MORITA*. *The Univ. of Tokyo.*

10:00 TT65 **363.03** Orbitofrontal cortex is necessary for choice behavior guided by learned, but not innate, taste preferences. L. RAMÍREZ-LUGO; S. ÁNGELES-DURÁN; J. ORTIZ-ALEGRÍA; F. SOTRES-BAYON*. *Univ. Nacional Autónoma de México.*

11:00 TT66 **363.04** A canonical cortical microcircuit for transducing rapid neuromodulatory signals. H. PI*; A. KEPECS. *Cold Spring Harbor Lab.*

8:00 TT67 **363.05** Role of the rostromedial tegmental nucleus and lateral habenula in aversion learning and inhibitory control. P. J. VENTO*; N. W. BURNHAM; T. C. JHOU. *Med. Univ. of South Carolina.*

9:00 TT68 **363.06** The time course of stimulus expectation and its influence on decision speed in rats. K. Y. VLASOV; S. LIN*. *Natl. Inst. On Aging (NIA), NIH.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 TT69 **363.07** High density EEG responses to different frequency stimuli on parvalbumin-positive projection neurons in basal forebrain. E. HWANG; R. E. BROWN; Y. SUREKHA; T. KIM; J. T. MCKENNA; R. W. MCCARLEY; J. CHOI*. *Korea Inst. of Sci. and Technol., VA Boston Healthcare System, Harvard Med. Sch., Seoul Natl. Univ. Bundang Hosp., Korea Inst. of Sci. and Tech. (KIST), Univ. of Sci. and Technol.*

11:00 TT70 **363.08** Optogenetic investigation of basal forebrain neuronal circuits in freely moving mice in operant chambers. A. SCAGLIONE*; R. GREENFIELD; S. LIN. *NIH.*

8:00 TT71 **363.09** Nucleus basalis cholinergic neurons broadcast rapid reinforcement signals. B. HANGYA*; S. P. RANADE; A. KEPECS. *Cold Spring Harbor Lab.*

9:00 TT72 **363.10** Basal forebrain dynamics provide a teaching signal for motor skill learning. D. A. NITZ*; Y. KOTTURI; A. GUPTA; A. CHIBA. *UCSD, UCSD.*

10:00 TT73 **363.11** Neural correlates of proactive control in the basal forebrain. J. D. MAYSE*; M. GALLAGHER; S. LIN. *Johns Hopkins Univ., NIH, Natl. Inst. on Aging.*

11:00 TT74 **363.12** Long-term modification of noradrenergic circuitry prolongs cortical synaptic receptive field plasticity. A. MARTINS*; R. C. FROEMKE. *NYU Sch. of Med., PhD Programme in Exptl. Biol. and Biomedicine (PDBEB), Skirball Instute of Biomolecular Medicine, NYU, Ctr. for Neural Science, Nyu, New York, NY.*

8:00 TT75 **363.13** Motivational salience signal in the basal forebrain tracks behavioral performance during learning. H. MANZUR*; K. Y. VLASOV; N. JAZEBI; S. LIN. *NIH, Natl. Inst. of Hlth. - Nationa Inst. on Aging.*

9:00 TT76 **363.14** Inactivation of the nucleus basalis magnocellularis increases delay discounting. W. FOBBS*; S. SHIBANO; S. J. Y. MIZUMORI. *UW Psychology Dept.*

10:00 TT77 **363.15** Lateral habenula contain movement-related correlates in freely navigating rats. S. OH*; V. A. REDILA; S. J. Y. MIZUMORI. *Univ. of Washington.*

11:00 TT78 **363.16** Perceived risk and agency impact hippocampal place field organization during performance of a probability discounting maze-based task. S. J. MIZUMORI*; M. R. PENNER; V. L. TRYON; J. LARKIN. *Univ. Washington, Univ. Washington.*

8:00 TT79 **363.17** Effects of cocaine on prefrontal - striatal neural activity during maze-based delay discounting. P. M. BAKER*; S. J. Y. MIZUMORI. *Univ. of Washington.*

9:00 TT80 **363.18** State-signaling in putative cholinergic interneurons in dorsomedial striatum depends on orbitofrontal cortex. T. A. STALNAKER*; B. A. BERG; N. AUJLA; G. SCHOENBAUM. *NIH/NIDA/IRP.*

10:00 TT81 **363.19** Neurons in the nucleus accumbens promote selection bias for nearer objects. S. E. MORRISON*; S. M. NICOLA. *Albert Einstein Col. of Med., Albert Einstein Col. of Med.*

11:00 TT82 **363.20** A neural basis for the modulation of spontaneous behavior in larval zebrafish. T. W. DUNN*; Y. MU; S. NARAYAN; E. NAUMANN; C. YANG; F. ENGERT; M. AHRENS. *Harvard Univ., Janelia Farm, HHMI.*

POSTER

364. Reward I

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 TT83 **364.01** Anti-anxiety self-medication: Ethanol and chlordiazepoxide oral consumption after reward devaluation. M. R. PAPINI*; L. MANZO; M. SABARIEGO; R. DONAIRE; B. GONZALEZ; C. TORRES. *Texas Christian Univ., Univ. of Jaen.*

9:00 TT84 **364.02** Muscarinic control of rostromedial tegmental nucleus (RMTg) GABA neurons and morphine-induced locomotion. D. I. WASSERMAN*; J. M. J. TAN; J. KIM; J. S. YEOMANS. *UNIVERSITY OF TORONTO.*

10:00 TT85 **364.03** A selective role for lmo4 in the basolateral complex of the amygdala in cue-reward learning. R. MAIYA*; U. HEBERLEIN; R. O. MESSING. *The Univ. of Texas at Austin, HHMI, Janelia Farm Res. Campus.*

11:00 TT86 **364.04** Conditioned sign tracking in rats is mediated by a representation of the goal. R. DERMAN; A. R. DELAMATER*. *Univ. of Michigan, Brooklyn Col. CUNY.*

8:00 TT87 **364.05** Optogenetic manipulation of serotonergic neurons in dorsal raphe nucleus alters impulsive behavior in tph2-cre rats. X. WANG*; D. KAPING; Å. KONRADSSON-GEUKEN; D. FÜRTH; O. TZORTZI; K. MELETIS; M. CARLÉN. *Karolinska Institutet.*

9:00 TT88 **364.06** Insensitivity to outcome devaluation in sign-tracking rats. Y. CHEN*; K. A. FISCELLA; A. B. KAWA; D. J. CALU. *Natl. Inst. on Drug Abuse.*

10:00 TT89 **364.07** The ability of chronic food restriction, stress and intermittent access to palatable food to induce binge eating behavior. J. O. SUAREZ-ORTIZ*; F. CORTES-SALAZAR; D. DIAZ-URBINA; V. E. LOPEZ-ALONSO; J. M. MANCILLA-DIAZ; D. N. VELAZQUEZ-MARTINEZ; R. E. ESCARTIN-PEREZ. *Univ. Nacional Autonoma de Mexico, Univ. Nacional Autónoma de México.*

11:00 TT90 **364.08** Sign- and goal-tracking rats learn differently in the face of changing reward value. S. Z. BACHARACH*; A. B. KAWA; M. F. CAROLL; D. J. CALU. *Natl. Inst. On Drug Abuse.*

8:00 TT91 **364.09** Social reward valuation in the macaque. II. Role for dorsomedial prefrontal cells. A. NORITAKE*; M. ISODA. *Kansai Med. Univ.*

9:00 TT92 **364.10** Social reward valuation in the macaque. I. Design of a behavioral paradigm. M. ISODA*; A. NORITAKE. *Kansai Med. Univ.*

10:00 UU1 **364.11** Disinhibition of the rostromedial tegmental nucleus blocks conditioned locomotion induced by amphetamine. H. LAVEZZI*; D. S. ZAHM. *St. Louis Univ. Sch. of Med.*

11:00 UU2 **364.12** Abstinence and environmental enrichment related changes in Fos expression in rats responding for a sucrose-paired cue. J. W. GRIMM*; J. BARNES; J. KOERBER; E. GLUECK; D. GINDER; J. HYDE; L. EATON. *Western Washington Univ.*

8:00 UU3 **364.13** The role of GLP-1 in motivation to emit a conditioned appetitive response for a highly palatable food reward. N. M. BALBA; L. MONTAGNE; K. C. SCHATZ; C. P. KING; T. DAS; M. J. PRESTREAU; L. M. STRAND; N. J. MCKAY; D. DANIELS; A. C. THOMPSON*. *Univ. at Buffalo, Univ. Buffalo.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 UU4 **364.14** Social reward versus food reward: Effect of reward type on reinforcement learning in the socially monogamous coppery titi monkey (Callicebus cupreus). S. M. FREEMAN*; N. REBOUT; K. L. BALES. *California Natl. Primate Res. Ctr., Agrocampus Ouest, Univ. of California, Davis.*

10:00 UU5 **364.15** Roles of NMDA and dopamine D1 and D2 receptors in the acquisition and expression of flavor preferences conditioned by oral glucose in rats. T. COKE*; J. A. DELA CRUZ; N. KHALIFA; D. ICAZA-CUKALI; C. SAMPSON; R. J. BODNAR. *Queens College, CUNY.*

11:00 UU6 **364.16** Cortical GluN2B NMDA receptor control of punished reward-seeking. A. K. RADKE*; N. J. JURY; M. MENDEZ; O. BUKALO; A. HOLMES. *Natl. Inst. of Alcohol Abuse and Alcoholism.*

8:00 UU7 **364.17** Optogenetic excitation of laterodorsal tegmental nucleus inputs to the ventral tegmental area results in dopamine-dependent reinforcement in rats. S. STEIDL*; K. VEVERKA; A. MARTIN. *Loyola Univ. Chicago.*

9:00 UU8 **364.18** Multiple behavioral metrics track learning of probabilistically reinforced visual cues in macaque monkeys. H. P. EATON; P. M. KASKAN; J. A. ZEMSKOVA; V. D. COSTA; A. R. MITZ*; L. G. UNGERLEIDER; E. A. MURRAY. *Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth., NIH.*

10:00 UU9 **364.19** Synaptic encoding of positive and negative associative memories. P. NAMBURI*; A. BEYELER; S. YOROZU; R. WICHMANN; S. S. HOLDEN; K. L. MERTENS; S. A. HALBERT; A. C. FELIX-ORTIZ; J. M. GRAY; I. R. WICKERSHAM; K. M. TYE. *Massacusetts Inst. of Technol., Picower Inst. for Learning and Memory, MIT, Harvard Med. Sch., Univ. of Amsterdam, Wellesley Col.*

11:00 UU10 **364.20** fMRI activation of cortical and subcortical regions in macaque monkeys associated with anticipation and receipt of reward. P. M. KASKAN*; H. P. EATON; J. A. ZEMSKOVA; V. D. COSTA; A. R. MITZ; D. A. LEOPOLD; L. G. UNGERLEIDER; E. A. MURRAY. *Natl. Inst. of Mental Hlth.*

8:00 UU11 **364.21** The major innervation from the dorsal raphe to the ventral tegmental area is from neurons that express VGluT3 mRNA. H. WANG*; J. QI; M. MORALES. *IRP/NIDA/NIH.*

9:00 UU12 **364.22** A glutamatergic pathway from dorsal raphe-VGluT3 neurons to the ventral tegmental area promotes reward. J. QI*; H. WANG; R. P. SEAL; M. MORALES. *Natl. Inst. On Drug Abuse, Univ. of Pittsburgh.*

10:00 UU13 **364.23** Within the ventral tegmental area, inputs from dorsal raphe VGluT3 neurons synapse preferentially on dopamine neurons. S. ZHANG*; J. QI; H. WANG; M. MORALES. *Natl. Inst. of Health, Natl. Inst. on Drug Abuse, IRP.*

11:00 UU14 **364.24** Neural firing in the bed nucleus of the stria terminalis (BNST): Cue and reward modulation during reversals. R. N. GENTRY*; M. R. ROESCH. *Univ. of Maryland, Col. Park.*

8:00 UU15 **364.25** Effects of neonatal handling and access to high palatable diet on feeding behavior task with different sweet foods. M. D. MARCOLIN*; A. N. D. BENITZ; R. BREUNIG; C. DALMAZ. *UFRGS.*

9:00 UU16 **364.26** The nucleus accumbens modulates the encoding of rewarding stimuli in the ventral pallidum. C. CHAN*; D. S. WHEELER; R. A. WHEELER. *Marquette Univ.*

10:00 UU17 **364.27** Effects of cross-fostering on play and anxiety in juvenile F344 and Lewis rats. S. M. SIVIY*; L. S. MCDOWELL; S. R. ECK; C. C. GARLISS; A. TURANO; M. C. PERKINS. *Gettysburg Col.*

11:00 UU18 **364.28** Cues predictive of rewards high in fat gain prominence over time. R. A. DARLING*; P. M. DINGESS; T. E. BROWN. *Univ. of Wyoming, Unversity of Wyoming, Unversity of Wyoming.*

8:00 UU19 **364.29** Accumbens mechanisms of reactivity and affective state in a rat model of of binge eating. J. STAMOS*; N. BELLO; S. MA; A. PAWLAK; K. COFFEY; D. QUINTIN; M. WEST. *Rutgers, Rutgers, Rutgers, Rutgers.*

9:00 UU20 **364.30** The role of nociceptin in responding for palatable rewards. I. A. MENDEZ*; N. T. MAIDMENT; N. P. MURPHY. *UCLA.*

POSTER

365. Vocal Communication in Songbirds: Learning and Social influences

Theme F: Cognition and Behavior

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 UU21 **365.01** Insights into the neural mechanisms of music from a cross-species perspective. C. PARENT*; E. D. JARVIS. *Duke Univ. Med. Ctr., Duke Univ. Med. Ctr.*

9:00 UU22 **365.02** Prior experience modifies vocal skill development. M. VELLEMA*; S. SZEBOK; S. BASCONES; A. VAN DER LINDEN; M. GAHR. *Max Planck Inst. for Ornithology, Univ. of Paris-South, CNRS, Bio-Imaging Lab, Univ. of Antwerp.*

10:00 UU23 **365.03** Tutor song recognition is not dependent on syllable order in zebra finches. C. MOL*; J. J. BOLHUIS; S. MOORMAN. *Utrecht Univ., Boston Univ.*

11:00 UU24 **365.04** Neural mechanisms of early auditory memory formation in juvenile songbirds. S. MOORMAN*; M. A. ZANDBERGEN; J. J. BOLHUIS. *Boston Univ., Utrecht Univ.*

8:00 UU25 **365.05** Aligning auditory and motor representations of syllable onsets in songbird vocal learning. E. MACKEVICIUS*; M. S. FEE. *MIT, MIT.*

9:00 UU26 **365.06** Emergence of neural selectivity for memorized birdsongs in the higher-level auditory cortex of juvenile songbird. S. YANAGIHARA*; Y. YAZAKI-SUGIYAMA. *Okinawa Inst. of Sci. and Technol.*

10:00 UU27 **365.07** Template-based song learning: How an internal sensory template guides motor development. D. LIPKIND*; A. HANUSCHKIN; O. TCHERNICHOVSKI; R. H. HAHNLOSER. *Hunter Col., Inst. of Neuroinformatics, Univ. of Zurich and ETH Zurich.*

11:00 UU28 **365.08** Zebra finch vocal coordination: Another outcome of song development? J. HYLAND BRUNO*; T. ROESKE; O. TCHERNICHOVSKI. *Hunter Col.*

8:00 UU29 **365.09** Cultural evolution of birdsong in the laboratory. S. DEREGNAUCOURT*; L. NAGLE; M. GAHR; T. AUBIN; N. GEBERZAHN. *LECD, Univ. Paris West, Inst. Universitaire de France, Max Planck Inst. for Ornithology, Ctr. of Neurosci. Paris South.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 UU30 **365.10** ● How social interactions affect song learning and cultural evolution in zebra finches. T. C. ROESKE*; J. HYLAND BRUNO; K. TOKAREV; I. LJUBICIC; O. TCHERNICHOVSKI. *Hunter Col.*

10:00 UU31 **365.11** Simulated social context presented in video clips can bias song imitation in juvenile zebra finches. I. LJUBICIC*; D. LIPKIND; O. TCHERNICHOVSKI. *Hunter College, CUNY, Grad. Center, CUNY.*

11:00 UU32 **365.12** Does having a single father affect song learning and the brain in zebra finches? L. S. PHILLMORE*; J. FISK; S. D. AITKEN; T. S. PERROT. *Dalhousie Univ.*

8:00 UU33 **365.13** Social context stimulates song imitation choice in the zebra finch via dopaminergic control. K. TOKAREV*; O. TCHERNICHOVSKI; J. HYLAND BRUNO; I. LJUBIČIĆ; S. A. HELEKAR; H. U. VOSS. *Hunter College, CUNY, City Univ. of New York, The Methodist Hosp. Res. Inst., Weill Cornell Med. Col.*

9:00 UU34 **365.14** Song-induced dopamine release in the reward pathway of a seasonally-breeding songbird. C. A. RODRÍGUEZ-SALTOS*; S. M. LYONS; K. W. SOCKMAN; D. L. MANEY. *Emory Univ., Univ. of North Carolina.*

10:00 UU35 **365.15** Sub-second monitoring of electrically, pharmacologically, and acoustically evoked phasic dopamine signals in the striatum of an anesthetized songbird. A. R. SMITH; P. A. GARRIS; J. M. CASTO*. *Illinois State Univ.*

11:00 UU36 **365.16** Dopamine physiology in the basal ganglia of male zebra finches during social stimulation. E. C. IHLE*; M. VAN DER HART; M. JONGSMA; L. H. TECOTT; A. J. DOUPE. *UCSF, BrainsOn-line, BrainsOn-line.*

8:00 UU37 **365.17** Neural responses to vocalizations in the songbird auditory forebrain differentially reflect social and instrumental reward prediction. B. A. BELL*; M. L. PHAN; D. S. VICARIO. *Rutger's Univ.*

9:00 UU38 **365.18** Selective neural responses in the zebra finch auditory cortex reflect the the time course of salient information. J. KNOWLES*; A. J. DOUPE. *UCSF, UCSF.*

10:00 UU39 **365.19** Lateralization of immediate early gene expression in response to dominance cues within male song. A. H. HAHN*; M. HOESCHELE; L. M. GUILLETTE; D. LEE; J. HOANG; N. MCMILLAN; K. A. OTTER; C. B. STURDY. *Univ. of Alberta, Univ. of Northern British Columbia.*

11:00 UU40 **365.20** Is vocal learning condition-dependent? S. LEITNER*; J. EVANS; K. L. BUCHANAN. *Max Planck Inst. Ornithology, Deakin Univ.*

8:00 UU41 **365.21** The impact of early nutritional stress on zenk expression in the forebrain of female zebra finches. S. A. CAMPBELL*; R. C. ANDERSON; S. PETERS; S. NOWICKI; K. B. SEWALL. *Virginia Tech., Duke Univ.*

POSTER

366. Techniques for Monitoring Proteins in Neurons

Theme G: Novel Methods and Technology Development

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 UU42 **366.01** Neurochemical detection of adenosine, adenosine tri-phosphate, adenosine di-phosphate and adenosine mono-phosphate in discrete brain regions of mice carrying the a53t and a30p mutations in alpha-synuclein during ageing. A. K. PANI*; K. J. SAMPLE; D. B. LESTER; Y. JIAO; R. J. SMEYNE. *St Jude Children's Res. Hosp.*

9:00 UU43 **366.02** Development and validation of electro-chemiluminescence immunoassays for determination of sAPPa and sAPPb in dog and human cerebrospinal fluid. K. DE WAEPENAERT*; L. GYS; D. VAN GLABBEEK; M. BORGERS; B. VAN BROECK; D. DHUYVETTER; D. MOECHARS; H. BORGHYS; M. MERCKEN. *Janssen Res. and Development, A Div. of Janssen Pharmaceutica NV, Janssen Res. and Development, A Div. of Janssen Pharmaceutica NV, Beerse, Belgium.*

10:00 UU44 **366.03** Design of optogenetic regulators of cell signaling to study neuronal pathophysiological mechanisms. R. M. MELERO*; M. TUITILA; L. LI; M. J. COURTNEY. *A.I. Virtanen Inst.*

11:00 UU45 **366.04** Transgenic tools to investigate aberrant hyperphosphorylated tau in the locus coeruleus. T. CHALERMPALANUPAP*; C. JEROME; T. X. CHEN; M. G. TANSEY; L. C. WALKER; A. I. LEVEY; D. WEINSHENKER. *Emory Univ., Emory Univ., Emory Univ., Emory Univ., Yerkes Natl. Primate Res. Ctr.*

8:00 UU46 **366.05** WITHDRAWN.

9:00 UU47 **366.06** Engineering inducible gene knockout human pluripotent stem cell lines for dissecting neural function. Y. CHEN*; J. CAO; M. XIONG; Z. DU; S. ZHANG. *Waisman Center, Univ. of Wisconsin-Madison, Waisman Ctr., Waisman Ctr.*

10:00 UU48 **366.07** Dynamic optical stereolithography: A platform for 3D neural patterning on hydrogel-MEA interfaces. P. CHUNG; M. L. KHRAICHE*; S. CHEN. *UCSD.*

11:00 UU49 **366.08** New characterization of mitochondrial transport in neurons. R. F. NIESCIER*; S. KWAK; S. JOO; K. CHANG; K. MIN. *Ulsan Natl. Inst. of Sci. and Technol., Ulsan Natl. Inst. of Sci. and Technol., USC.*

8:00 UU50 **366.09** An in-cell biotin transfer assay suggests that putative lipid raft targeting motifs are not compartmentalized in living cells. A. KOVOOR*; J. SCHRADER; J. C. OCTEAU. *Univ. of Rhode Island.*

9:00 UU51 **366.10** Directed differentiation of human induced pluripotent stem cells to sensory neurons by combined small molecule inhibitors. C. SA*; Y. S. CHAN; D. K. Y. SHUM. *The Univ. of Hong Kong, The Univ. of Hong Kong, The Univ. of Hong Kong.*

10:00 UU52 **366.11** ● Rns60, an electrokinetically modified saline as a potential therapeutic. T. L. MEGA*; S. R. GERMAN. *Revalesio.*

11:00 UU53 **366.12** ● Poly-Ubiquitin chains paradox: Development of novel and selective poly-ubiquitin binding domains. E. OLSON; M. MASON; C. LOCH; R. MURPHY*; J. STRICKLER. *LifeSensors, Inc., Epalex Inc.*

8:00 UU54 **366.13** ● Kinesin-microtubule molecular system in microchip format for detection of tau isoforms and mutants. S. P. SUBRAMANIYAN*; M. C. TARHAN; K. STANISLAV; H. FUJITA; H. SHINTAKU; H. KOTERA; R. YOKOKAWA. *Kyoto Univ., Tokyo Univ., Neuroindx.*

9:00 UU55 **366.14** Features of calf brain cytosol GlcNAc-, Gal-, Man-specific lectins. T. MACHARADZE*; L. KHARAZISHVILI; R. AKHALKATSI. *Tbilisi State Univ.*

10:00 UU56 **366.15** Eliminating western blot variability with simple western. P. PIATTI; A. W. TU; S. MUNDODI; J. M. PROCTOR*; A. BOGE. *Proteinsimple.*

11:00 UU57 **366.16** WITHDRAWN.

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 UU58 **366.17** Role for the propofol hydroxyl in on-pathway target site recognition. K. WOLL*; Q. LIANG; B. WEISER; A. MCKINSTRY; B. PINCH; W. DAILEY; M. COVARRUBIAS; R. ECKENHOFF. *Univ. of Pennsylvania Sch. of Med., Jefferson Med. Col. of Thomas Jefferson Univ., Univ. of Pennsylvania Sch. of Med., Univ. of Pennsylvania Sch. of Arts and Sci.*

9:00 UU59 **366.18** ● Improved western blot assays using blotcycler. A. M. ZAORSKI; D. P. CHIMENTO; R. YUKHANANOV*. *Rockland Immunochemicals, Inc., Precision Biosystems.*

10:00 UU60 **366.19** Investigation of astrocyte specific responses to MPTP-induced neurotoxicity in the ALDH1L1 BAC-TRAP mouse. K. A. KELLY*; D. B. MILLER; J. P. O'CALLAGHAN. *CDC-NIOSH.*

11:00 UU61 **366.20** ● Toolbox for studying epigenetic mechanisms in neurodevelopment and disease. T. K. KELLY*; L. RAJCHEL; J. DABROWSKI; K. NAUMANN; K. HONDORP; J. SAMUELSSON. *Active Motif.*

8:00 UU62 **366.21** ● Design of peptide-based vectors that target LDLR mediated transport processes for drug delivery to the brain and other organs. M. KHRESTCHATISKY*; P. LÉCORCHÉ; M. DAVID; M. LAURENCIN; Y. MOLINO; C. MALICET; R. SOUSSI; M. MASSE; F. GASSIOT; N. GAUDIN; A. FORTOUL; F. JABÈS; K. VARINI; M. SMIRNOVA; V. DIVE; S. CISTERNINO; G. JACQUOT. *UMR7259 CNRS-Aix Marseille Univ., Vect-Horus, CEA, INSERM - Universités Paris Descartes - Paris Diderot.*

9:00 UU63 **366.22** ▲ The concentration of ionized calcium in human cerebrospinal fluid and the effect on neuronal excitability. M. FORSBERG*; D. ANDTBACKA; A. BJOREFELDT; U. ANDREASSON; H. ZETTERBERG; E. L. HANSE. *Univ. of Gothenburg, Univ. of Gothenburg, Univ. of Gothenburg.*

10:00 UU64 **366.23** ● Quantitative analysis of dysferlin expression in peripheral mononuclear cells by flow cytometry as a screening tool for dysferlinopathies. L. SANCHEZ-CHAPUL*; C. M. DEL ANGEL MUÑOZ; L. A. RUANO-CALDERÓN; F. FERNÁNDEZ-VALVERDE; R. CORAL-VÁZQUEZ; N. WEIN; P. MONDRAGÓN-TERÁN; L. B. LÓPEZ-HERNÁNDEZ; B. GÓMEZ-DÍAZ; T. GÓMEZ-NERI; J. L. ANDRADE-CABRERA; O. HERNÁNDEZ-HERNÁNDEZ; V. PÉREZ-DE LA CRUZ; S. R. LEÓN-HERNÁNDEZ; R. PANIAGUA-PÉREZ; R. ESCOBAR-CEDILLO; S. VARGAS; C. J. MARTÍNEZ-CANSECO. *Inst. Nacional De Rehabilitacion, Hosp. Gen. de Durango, Inst. Nacional de Neurología y Neurocirugía, Inst. Politécnico Nacional, Nationwide Children's Hosp., CMN 20 de Noviembre, ISSSTE.*

11:00 UU65 **366.24** ● A new transfection reagent for improved CRISPR-based genomic editing in neural stem cells (NSCs) and induced pluripotent stem cells (iPSCs) for disease model generation. N. ANDRONIKOU*; X. YU; S. ESSEX; Y. GENG; N. ROARK; B. HAMMER; D. PIPER; N. RAVINDER; X. DE MOLLERAT DU JEU. *Thermo Fisher Scientific.*

POSTER

367. Imaging

Theme G: Novel Methods and Technology Development

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 UU66 **367.01** AutID: A neuroimaging reference resource for autism research. W. PEREANU*; B. STAN; I. DAS; S. BANERJEE-BASU. *Mindspec.*

9:00 UU67 **367.02** Collecting high-quality ECG data within the fMRI environment: Physiologic and neural reactions to a high-load respiratory task. J. F. BUCKMAN*; A. PUHALLA; S. RAY; S. HANSON; C. HANSON; P. DEO; L. BANU; P. BARNAS; S. HEISS; M. E. BATES. *Rutgers Univ., Rutgers Univ.*

10:00 UU68 **367.03** *In vivo* monitoring of sevoflurane-induced neuronal injury in neonatal nonhuman primates using small animal positron emission tomography. C. WANG*; X. ZHANG; G. D. NEWPORT; S. LIU; M. G. PAULE; M. BERRIDGE; S. APANA; W. SLIKKER, JR. *Natl. Ctr. For Toxicological Research/FDA, UAMS.*

11:00 UU69 **367.04** Using clinical images to study the evolution of mean ADC values and brain volume of healthy pediatric subjects. K. RETZEPIS; Y. OU; L. ZŐLLEI; N. REYNOLDS; V. CASTRO; S. PIEPER; S. N. MURPHY; P. E. GRANT; R. L. GOLLUB*. *Massachusetts Gen. Hosp., Partners HealthCare, Isomics, Massachusetts Gen. Hosp., Children's Hosp. Boston.*

8:00 UU70 **367.05** Ultra-early analysis of cerebral edema formation in the infarct marginal zone using 7T-MRI in mice. Y. NAKAJO*; Q. ZHAO; J. ENMI; H. IIDA; J. C. TAKAHASHI; H. YANAMOTO. *Natl. Cerebral and Cardiovasc. Res. Ctr., Rakuwa-kai Otowa Hosp, Dept. of Neurosurg., Natl. Cerebral and Cardiovasc. Res. Ctr., Dept. of bio-medical imaging, Natl. Cerebral and Cardiovasc. Ctr. Res. Inst., Dept. of Cardiovasc. Science, Div. of Surgical Med., Osaka Univ. Grad. Sch. of Med.*

9:00 UU71 **367.06** AutoImage: A user interface plugin for the open source Micro-Manager software package to enhance automated multi-sequence image acquisition with integrated post-acquisition processing. I. CHENG; K. GAMAGE; C. DEPPMANN; K. H. SILLER*. *Univ. of Virginia.*

10:00 UU72 **367.07** Stem cell graft differentiation towards the glial lineage - Insights from optical *in vivo* imaging. M. ASWENDT*; A. TENNSTÄDT; S. MICHALK; L. MEZZANOTTE; C. LÖWIK; M. HOEHN. *Max Planck Inst. For Neurolog. Res., Leiden Univ. Med. Ctr.*

11:00 UU73 **367.08** Functional myelin: Physiological, pathological and development significance. H. YE*; I. AHMAD; P. RADLOWSKI; J. SCHLUEP. *Dept. of Biol.*

8:00 UU74 **367.09** Influence of hypertension on neurobehavioral and pathological outcomes after chronic cerebral hypoperfusion in rats. Y. CUI*; J. Y. CHOI; B. G. KIM. *Ajou Univ. Sch. of Med., Ajou Univ. Sch. of Med., Ajou Univ. Sch. of Med.*

9:00 UU75 **367.10** Retinal microangiopathy in a mouse model of inducible mural cell loss. J. ARBOLEDA-VELASQUEZ*; C. N. VALDEZ; D. S. AMARNANI; L. A. KIM; P. A. D'AMORE. *Schepens Eye Res. Inst.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 UU76 **367.11** Long-term ovariectomy and estradiol affects estrogens receptors and morphometric of paravaginal ganglia in rabbit. L. G. HERNANDEZ ARAGON*; N. XELHUANTZI; E. CUEVAS-ROMERO; P. PACHECO-CABRERA; M. MARTINEZ-GOMEZ; F. CASTELAN. *Univ. Autonoma De Tlaxcala, Univ. Nacional Autónoma de México.*

11:00 UU77 **367.12** Investigating reorganization of the motor cortices following stem cell therapy in a non-human primate model of cortical ischemia. K. R. ARNDT*; F. MORTAZAVI; D. L. ROSENE; T. L. MOORE. *Boston Univ. Sch. of Med.*

8:00 UU78 **367.13** Knock-down of NGFI-B by siRNA or treatment with RXR ligand 9-cis retinoic acid reduces apoptosis induced by calcium ionophore in rat cerebellar granule neurons. L. AUSTDAL*; G. MATHISEN; K. DEBERNARD; R. PAULSEN. *Univ. of Oslo.*

POSTER

368. Imaging Advances: New Histology, Reagents, and Approaches

Theme G: Novel Methods and Technology Development

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 UU79 **368.01** Combining brain clearing and light-sheet fluorescence microscopy with tape-transfer assisted sectioning and histochemistry for whole mouse brain and spinal cord imaging. G. GIESE; A. SCHERBARTH; V. PINSKIY*; A. TOLPYGO; F. MECHLER; P. MITRA. *Max Planck Inst. for Med. Res., Cold Spring Harbor Lab.*

9:00 UU80 **368.02** LUMOS: Optical clearing for 3D fluorescent immunostaining and imaging. O. I. EFIMOVA*; K. V. ANOKHIN. *Natl. Res. Ctr. Kurchatov Inst., Moscow Inst. of Physics and Technol., Anokhin Inst. of Normal Physiol.*

10:00 UU81 **368.03** CLARITY-based exploration of the postnatal development of brainstem-hypothalamic circuits in rats. H. ZHENG*; L. RINAMAN. *Univ. Pittsburgh.*

11:00 UU82 **368.04** Clearing up CLARITY. B. K. YOUNG*; N. TIAN. *Univ. of Utah.*

8:00 UU83 **368.05** ● ▲ Deep brain imaging combined optical coherence tomography and tissue clearing. S. JUNG*; J. LEE; E. MIN; W. JUNG. *UNIST.*

9:00 UU84 **368.06** Optics for the imaging of cleared samples. H. DODT*; K. BECKER; C. HAHN; N. JÄHRLING; S. SAGHAFI. *Tech. Univ. Vienna, Ctr. for Brain Res.*

10:00 UU85 **368.07** Clearing of the mouse temporal bone using a modified SeeDB protocol. T. MAKISHIMA*; R. COOK. *Univ. of Texas Med. Br.*

11:00 UU86 **368.08** Estimating white matter tracts in *ex vivo* mouse brain using DTI and microscopy-based fluorescence tracing. E. H. CHANG*; M. ARGYELAN; T. S. CHANDON; M. AGGARWAL; S. MORI; A. K. MALHOTRA. *Zucker Hillside Hospital, The Feinstein Inst., Johns Hopkins Univ. Sch. of Med., Kennedy Krieger Inst.*

8:00 UU87 **368.09** Imaging silver-impregnated histological preparations with confocal microscopy. K. J. THOMPSON*; C. M. HARLEY; M. A. SANDERS; K. A. MESCE. *Agnes Scott Col., Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

9:00 UU88 **368.10** Correlative histochemistry: A quick and simple method for whole-mount immunohistochemistry and optical clearing of *in vivo*-imaged neurons. M. KE*; T. IMAI. *Riken Ctr. For Developmental Biol., PRESTO.*

10:00 UU89 **368.11** Microwave-assisted immunohistochemical protocols for free-floating brain tissue: An approach to save time, money and generate insights into antigen concentrations. O. YESSOUFOU; M. KOBAN*; S. RADOVICK; A. WOLFE; G. E. HOFFMAN. *Morgan State Univ., Morgan State Univ., Johns Hopkins Univ. Sch. of Med.*

11:00 UU90 **368.12** Twelve hour golgi-cox staining of planaria. B. LOVELL; J. AGNEW; A. STILLAR; A. C. W. WEEKS; M. J. SAARI*. *Nipissing Univ., Nipissing Univ.*

8:00 UU91 **368.13** Linker length between S4 and fluorescent affects size and voltage-sensitivity of the optical signal of a genetically-encoded fluorescent protein. A. JUNG*; J. GARCIA; B. KANG; H. PIAO; D. RAJAKUMA; E. KIM; B. BAKER. *Korea Inst. of Sci. and Technol., Korea Univ., Indiana Univ.*

9:00 UU92 **368.14** Minimal tags for super-resolution imaging: Clickable unnatural amino acids. I. VREJA*; I. NIKIC; F. GÖTTFERT; M. BATES; S. W. HELL; E. A. LEMKE; S. O. RIZZOLI. *Univ. Med. Ctr. Göttingen, European Mol. Biol. Lab., Max Planck Inst. for Biophysical Chem.*

10:00 VV1 **368.15** An enhanced immunostaining method for large scale whole-mount imaging of embryonic and adult neural structures. N. RENIER*; Z. WU; D. SIMON; J. YANG; M. TESSIER-LAVIGNE. *The Rockefeller Univ.*

11:00 VV2 **368.16** A fast and robust fluorescence micro-optical sectioning tomography (fMOST) method for whole-mouse brain imaging at a one-micron voxel resolution. H. GONG*; D. XU; X. LI; B. HU; J. LIU; Q. LUO. *Wuhan Natl. Lab. For Optoelectronics.*

8:00 VV3 **368.17** Permanent *in vivo* marking of active neurons with a genetically encoded calcium integrator, CaMPARI. E. R. SCHREITER*; B. F. FOSQUE; Y. SUN; H. DANA; T. OHYAMA; C. YANG; M. B. AHRENS; M. KOYAMA; K. SVOBODA; M. ZLATIC; V. JAYARAMAN; D. S. KIM; L. L. LOOGER. *Howard Hughes Med. Institute, Janelia Farm Res. Campus.*

9:00 VV4 **368.18** Enzyme-Linked ImmunoSpot (ELISPOT) is a high-sensitivity assay to study secretion of BDNF, GDNF and NGF at a single cell level. A. E. KALYUZHNY*; J. HAGEN; J. P. HOUCHINS. *R&D Systems, Inc.*

10:00 VV5 **368.19** ● A comparison of different staining methods for acetylcholinesterase histology. C. ZURHELLEN*; B. TIPTON; J. BAUN; R. C. SWITZER, III. *Neurosci. Associates.*

11:00 VV6 **368.20** ▲ Comparison of peroxidase and avidin-biotin-peroxidase complex (ABC) immunocytochemical staining procedures for c-Fos in rat brain. J. L. BUTLER; B. J. BARHAM; B. A. HEIDENREICH*. *Illinois State Univ., Illinois State Univ.*

8:00 VV7 **368.21** ● Immunohistochemical comparison of antibodies against tau in brain sections from human, AD and normal, and mouse wild-type and an AD model. C. SEGOVIA*; R. C. SWITZER, III; A. P. OSMAND. *NeuroScience Associates, Univ. of Tennessee.*

9:00 VV8 **368.22** Analysis of nearest-neighbor spacing, distribution and postsynaptic composition of synapses in the medulla connectome of *Drosophila.* P. K. RIVLIN; J. HORNE; S. PLAZA; S. TAKEMURA; L. K. SCHEFFER; I. A. MEINERTZHAGEN*. *Janelia Farm Res. Campus of HHMI, Dalhousie Univ.*

10:00 VV9 **368.23** Anatomical and functional dissection of neural circuits in the zebrafish visual system by transsynaptic tracing. F. DE SANTIS; C. GEBHARDT; F. DEL BENE*. *Inst. Curie, Inst. Curie - Ctr. de Recherche.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 VV10 **368.24** Anatomical studies of the olfactory bulbs of the African giant rat (Cricetomys gambianus, waterhouse -1840). S. A. MUSA*; J. O. HAMBOLU; S. A. OJO; S. S. ADEBISI; J. O. AYO; J. R. NYENGAARD. *Ahmadu Bello Univ., Ahmadu Bello Univ., Aarhus Univ.*

8:00 VV11 **368.25** Corticothalamic and corticocortical cells in mouse M1 exhibit layer- and area-specific elaboration of axon collaterals. A. WATAKABE*; M. TAKAJI; S. KATO; K. KOBAYASHI; H. MIZUKAMI; K. OZAWA; R. MATSUI; D. WATANABE; S. OHSAWA; T. YAMAMORI. *Natl. Inst. Basic Biol, Fukushima Med. Univ., Jichi Med. Univ., Kyoto Univ.*

9:00 VV12 **368.26** Layer-specific inter-areal cortical connectivity patterns in mouse brain. J. A. HARRIS*; L. NG; C. GERFEN; K. E. HIROKAWA; N. CAIN; S. MIHALAS; H. ZENG. *Allen Inst. For Brain Sci., Allen Inst. for Brain Sci., Natl. Inst. of Mental Hlth.*

10:00 VV13 **368.27** Synaptic connectivity between hippocampal pyramidal neurons and PV interneurons mapped using mGRASP. O. KWON; L. FENG; B. LEE; S. DRUCKMANN*; J. KIM. *Ctr. for Functional Connectomics, Korea Inst. of Sci. and Technol., Janelia Fram, HHMI.*

11:00 VV14 **368.28** Evidence for transneuronal passage of pseudorabies virus through gap junctions. J. P. CARD*; M. RICHARD; L. W. ENQUIST; G. J. WOJACZYNSKI. *Univ. of Pittsburgh, Univ. of Pittsburgh, Princeton Univ.*

8:00 VV15 **368.29** Whole rat brain analysis of anterograde tracers from motor cortex and retrograde tracers from cervical spinal cord: Validation of an efficient, automated method with stereology. J. B. CARMEL*; F. MECHLER; A. MUKHERJEE; T. WEN; A. TOLPYGO; P. MITRA. *Burke-Cornell Med. Res. Inst., Weill Cornell Med. Col., Cold Spring Harbor Labs.*

9:00 VV16 **368.30** ● Composition for use in imaging procedures. M. SEMEWORK*. *Columbia Univesity.*

POSTER

369. Electrophysiology Recording Tools and Techniques

Theme G: Novel Methods and Technology Development

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 VV17 **369.01** Elucidating brain network dynamics with resting-state fMRI and electrocorticography. W. R. SHIRER*; B. L. FOSTER; V. RANGARAJAN; M. D. GREICIUS; J. PARVIZI. *Stanford Univ. Sch. of Med., Stanford Univ. Human Intracranial Cognitive Electrophysiology Program (SHICEP).*

9:00 VV18 **369.02** 3D electrode for measurement of nerospheroid differentiation. J. JIN*; J. YOU; B. LEE; Z. CHANG; J. JEONG; J. PARK; J. KIM. *KIST, Sogang Univ., Korea university, Yonsei Univ., Sogang Univ.*

10:00 VV19 **369.03** ● A compact wireless multichannel neural recording platform for *in vivo* and *in vitro* recording. M. H. CHOI*; S. A. KIM; M. M. DE SHON; C. A. GODDARD; K. CHANG; J. R. HUGUENARD; N. A. MELOSH; C. C. GARNER. *Jinga-Hi, Inc, Stanford Univ., Stanford Univ., Stanford Univ.*

11:00 VV20 **369.04** ● A new MEA analysis tool for measuring pharmaco-influences on human iPS cell-derived neurons. K. P. MANGAN*; C. B. CARLSON; R. A. LLANAS; B. P. ARNOLD; A. N. THOMPSON; S. DELAURA. *Cell. Dynamics, Intl.*

8:00 VV21 **369.05** Tools for a scalable design for neuronal recordings *in vivo* using readout integrated circuits and cast microwire bundles. M. KOLLO*; W. WRAY; R. RACZ; M. ANGLE; N. KISKIN; A. T. SCHAEFER. *Natl. Inst. For Med. Res. (MRC NIMR), Natl. Inst. for Med. Res. (MRC), Stanford Univ., UCL.*

9:00 VV22 **369.06** Comparison of cardioballistic artifact removal methods for simultaneously recorded EEG and fMRI. E. NYHUS*; D. BADRE. *Bowdoin Col., Brown Univ., Brown Univ.*

10:00 VV23 **369.07** Benefits of 3d neuronal cell culture as *in vitro* model for neurological disorders. S. PAUTOT*; V. D. PEREZ-MEZA. *Crt-Dresden.*

11:00 VV24 **369.08** Electrophysiological and behavioral measurements and their relation with diffusion tensor imaging variables of the auditory pathway. H. HERNANDEZ*; A. TORRES-FORTUNY; Y. ITURRIA-MEDINA. *Neurosci. Cuban Ctr.*

8:00 VV25 **369.09** The unequal distribution of information transfer in local cortical networks. S. NIGAM*; M. SHIMONO; M. MYROSHNYCHENKO; O. SPORNS; C. LAPISH; J. M. BEGGS. *Indiana Univ. Bloomington, Indiana Univ. Bloomington, Indiana Univ. Bloomington, IUPUI.*

9:00 VV26 **369.10** Gamma networks with sparse, random connectivity: sparse synchrony, clustering and the effect of conduction delays. R. A. TIKIDJI-HAMBURYAN*; C. CANAVIER. *Louisiana State Univ. Hlth. Sci. Ctr.*

10:00 VV27 **369.11** Utilizing the *Drosophila melanogaster* giant fiber system for the functional characterization of peptidic natural products. M. H. HACKMAN*; M. F. HOGGARD; T. A. GODENSCHWEGE; F. MARI. *Florida Atlantic Univ.*

11:00 VV28 **369.12** Integration of probabilistic evidence over time from vocal communication signals. J. T. KIGGINS*; T. GENTNER. *UC San Diego, UC San Diego, UC San Diego.*

POSTER

370. TMS, tDCS, and Other Brain Stimulation Tools

Theme G: Novel Methods and Technology Development

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 VV29 **370.01** The effect of propofol on cortical excitability in rats as measured by transcranial magnetic stimulation. C. F. PAREDES SAENZ*; R. GERSNER; J. H. GOLDIE; A. ROTENBERG. *Boston Children's Hosp., Vivonics Inc.*

9:00 VV30 **370.02** Effect of epidural electrical stimulation and repetitive transcranial magnetic stimulation in rats with diffuse traumatic brain injury. K. LEE*. *Presbyterian Med. Ctr.*

10:00 VV31 **370.03** Non-invasive primate head restraint using thermoplastic masks. C. B. DRUCKER*; K. TODA; N. K. DEWIND; M. L. CARLSON; E. M. BRANNON; M. L. PLATT. *Duke Univ., Duke Univ., Duke Univ.*

11:00 VV32 **370.04** What is the best position of tdcs anodal electrode to induce the corticomotor excitability change? Y. KIM*; M. LEE; C. IM; J. KIM; A. LEE; C. PARK; W. CHANG. *Samsung Med. Cntr, Sungkyunkwan Univ., Grad. Sch. for Hlth. Sci. & Technology, Samsung Advanced Inst. for Hlth. Sci. and Technology, Sungkyunkwan Univ., Hanyang Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 VV33 **370.05** Biomimetic mechanical stimulation of cortical neurons *in vitro.* J. M. JANG*; S. OH; J. LEE; W. JUNG; N. JEON. *Seoul Natl. Univ., Seoul Natl. Univ., Ulsan Instititue of Sci. and Technol.*

9:00 VV34 **370.06** A CNS to CNS neuroprosthetic infrastructure for neuromodulation therapies based on intended movement after spinal cord injury. M. BONIZZATO*; J. DIGIOVANNA; G. PIDPRUZHNYKOVA; J. KREIDER; N. PAVLOVA; S. DUIS; S. MICERA; G. COURTINE. *École Polytechnique Fédérale de Lausanne, École polytechnique fédérale de Lausanne, Scuola Superiore Sant'Anna.*

10:00 VV35 **370.07** Online control of ipsilesional mu-oscillations during transcranial direct current stimulation (tDCS) over the affected motor cortex in severe chronic stroke. S. R. SOEKADAR*; S. E. ROBINSON; J. MELLINGER; L. G. COHEN; N. BIRBAUMER; M. WITKOWSKI. *Univ. of Tuebingen, NIMH, NINDS, Ospedale San Camillo.*

11:00 VV36 **370.08** Transcranial alternating current stimulation in the magnetoencephalograph. M. WITKOWSKI*; E. GARCIA-COSSIO; C. BRAUN; S. E. ROBINSON; L. G. COHEN; N. BIRBAUMER; S. R. SOEKADAR. *Applied Neurotechnology / Univ. Hosp. Tübingen, MEG Ctr., Natl. Inst. of Mental Hlth., Natl. Inst. of Neurolog. Disorders and Stroke, Inst. for Med. Psychology and Behavioural Neurobio., Ospedale San Camillo.*

8:00 VV37 **370.09** Two-photon stimulation of azobenzene-based photoswitches to control neural cell activity. M. IZQUIERDO SERRA*; M. GASCÓN-MOYA; J. J. HIRTZ; S. PITTOLO; K. E. POSKANZER; È. FERRER; R. ALIBÉS; F. BUSQUE; R. YUSTE; J. HERNANDO; P. GOROSTIZA. *IBEC, UAB, Columbia Univ., IBEC, ICREA.*

9:00 VV38 **370.10** Diffusion-bonded electrodes for chronic neural stimulation. K. SHAH*; K. Y. LEE; V. TOLOSA; A. TOOKER; S. FELIX; S. PANNU. *Lawrence Livermore Natl. Lab.*

10:00 VV39 **370.11** Organic electronic devices for neurochemical modulation of neuronal circuits. S. LÖFFLER*; E. K. ROSS; K. BENNET; K. H. LEE; A. RICHTER-DAHLFORS. *Karolinska Institutet, Mayo Clin., Mayo Clin., Mayo Clin.*

11:00 VV40 **370.12** Advanced silicon-parylene hybrid probes for a motor-control prosthesis. K. NA*; O. SRIVANNAVIT; R. HAQUE; F. CHEN; J. BERKE; K. WISE; E. YOON. *Univ. of Michigan, Univ. of Michigan, Structured Microsystems, Univ. of Michigan.*

8:00 VV41 **370.13** Remote regulation of neural activity. S. STANLEY*; J. SAUER; L. KELLY; A. NECTOW; J. S. DORDICK; J. FRIEDMAN. *Rockefeller Univ., Rensselaer Polytechnic Inst.*

9:00 VV42 **370.14** ▲ Effects of single pulse and repetitive transcranial magnetic stimulation on neurons in the primary motor cortex of a rhesus macaque. E. M. GRIGSBY*; M. J. KOVAL; R. DARIE; A. VORA; J. CAO; Z. D. DENG; A. V. PETERCHEV; T. EGNER; M. L. PLATT; W. M. GRILL; M. A. SOMMER. *Duke Univ., Duke Univ., Columbia Univ., Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

10:00 VV43 **370.15** Wireless neurotransmitter monitoring with paired pulse voltammetry during deep brain stimulation neurosurgery in humans. S. PAEK*; K. LEE; D. JANG; I. KIM; C. KIMBLE; K. BENNET; S. CHANG. *Mayo Clin., Hanyang Univ.*

11:00 VV44 **370.16** A novel system for short-time sensorimotor mapping in animal experiments. M. TAKEMI*; E. CASTAGNOLA; A. ANSALDO; D. RICCI; L. FADIGA; M. TAOKA; A. IRIKI; J. USHIBA. *Keio Univ. Grad. Sch. of Sci. and Technol., RIKEN Brain Sci. Inst., Inst. Italiano di Tecnologia, Univ. of Ferrara, Keio Univ., Keio Univ. Sch. of Med.*

8:00 VV45 **370.17** Method to non-invasively study variations in waveforms and velocities between single action potentials in mammalian axons. M. RADIVOJEVIC*; F. FRANKE; J. MÜLLER; A. HIERLEMANN; D. J. BAKKUM. *ETH Zürich.*

9:00 VV46 **370.18** ● *In situ* validation of design factors for the development of a miniature implantable vagus nerve stimulator. Y. A. LEVINE*; J. SIMON; R. ZITNIK; M. FALTYS. *Setpoint Med. Corp.*

POSTER

371. Bioinformatics

Theme G: Novel Methods and Technology Development

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 VV47 **371.01** A new way to identify research resources in the neuroscience literature. A. E. BANDROWSKI*; M. MARTONE; N. VASILEVSKY; M. BRUSH; M. HAENDEL. *UCSD, Oregon Hlth. and Sci. Univ.*

9:00 VV48 **371.02** Prioritizing neurological candidate genes from exome sequencing variants using an online tool for mining mouse phenotype-disease associations. J. BERGHOUT*; S. M. BELLO; C. L. SMITH; J. A. BLAKE; C. J. BULT; J. T. EPPIG; J. A. KADIN; J. E. RICHARDSON; M. RINGWALD; &. THE MOUSE GENOME INFORMATICS GROUP. *Mouse Genome Informatics / The Jackson Lab.*

10:00 VV49 **371.03** Multiplex analysis of secreted serum biomarkers in Alzheimer's disease. M. RAMSDEN*; R. FUERSTENBERG; S. ANDERSON; J. SCHMIDT. *R&D Systems Inc.*

11:00 VV50 **371.04** Digital interactive anatomical connectivity atlas of the macaque monkey brain. Z. S. SAAD; D. GLEN; K. S. SALEEM*. *Natl. Inst. of Mental Hlth. / Natl. Inst. of Hlth., Natl. Inst. of Mental Hlth. (NIMH/NIH).*

8:00 VV51 **371.05** A cross-species analysis of the evolution and neural expression of the MAO genes. A. A. ROSSER*; Q. YUAN; D. GOLDMAN. *NIH.*

9:00 VV52 **371.06** Worm Tracker: The next generation. E. I. YEMINI*; W. R. SCHAFER; O. HOBERT. *Columbia Univ., MRC Lab. of Mol. Biol., Howard Hughes Med. Inst.*

10:00 VV53 **371.07** Proteomic profiling of the CNS in a mouse model of pyridostigmine bromide and permethrin exposure reveals mitochondrial dysfunction. Z. ZAKIROVA*; M. TWEED; J. REED; G. CRYNEN; A. HART; P. VALLABHANENI; F. CRAWFORD; M. MULLAN; V. MATHURA; G. AIT-GHEZALA. *Roskamp Inst., The Open Univ., James A. Haley Veteran's Hosp.*

11:00 VV54 **371.08** Novel *in silico* method for the identification of drug targets for psychiatric drugs. S. SHMELKOV*; E. SHMELKOV; J. SWETNAM; T. BUTLER; A. GRIGORYAN; D. TIVON; D. MALASPINA; T. CARDOZO. *NYU Sch. of Med., Google Inc., NYU Sch. of Med., NYU Sch. of Med., NYU Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 VV55 **371.09** Building access to the INCF digital atlasing infrastructure. J. K. BOLINE*; R. BALDOCK; R. BAKKER; A. BURGER; J. GEE; C. HASELGROVE; M. HAWRYLYCZ; A. HESS; G. JOHNSON; P. MAJKA; L. NG; Y. OKAMURA-OHO; S. RUFFINS; I. ILYA ZASLAVSKY. *Informed Minds Inc, Univ. of Edinburgh, Radboud Univ., Univ. of Edinburgh, Univ. of Pennsylvania, Univ. of Massachusetts Med. Sch., Allen Inst. for Brain Sci., Univ. Erlangen-Nürnberg, Duke Ctr. for In Vivo Microscopy, Nencki Inst. of Exptl. Biol., RIKEN Ctr. for Advanced Photonics, USC, Univ. of California.*

9:00 VV56 **371.10** Advances in Senselab: ModelView, synaptic connectivity, and structured data submission. T. M. MORSE*; R. A. MCDOUGAL; R. WANG; L. MARENCO; M. HINES; N. T. CARNEVALE; P. MILLER; G. M. SHEPHERD. *Yale Univ. Sch. Med., Yale Univ. Sch. Med., VA Connecticut Healthcare Syst.*

10:00 VV57 **371.11** SciCrunch: A cooperative and collaborative data and resource discovery platform for scientific communities. J. S. GRETHE*; A. BANDROWSKI; D. BANKS; C. CONDIT; A. GUPTA; S. D. LARSON; Y. LI; B. OZYURT; A. STAGG; P. L. WHETZEL; L. MARENCO; P. L. MILLER; R. WANG; G. M. SHEPHERD; M. E. MARTONE. *UCSD, UCSD, Yale Univ. Sch. of Med., Yale Univ.*

11:00 VV58 **371.12** The Monarch Initiative: A system for translating phenotypes between model organisms and human disease. M. E. MARTONE*; M. A. HAENDEL; C. J. MUNGALL; N. VASILEVSKY; N. WASHINGTON; H. HOCHHEISER; S. LEWIS; A. GUPTA; J. GRETHE. *UCSD, Oregon State Hlth. Sci. Univ., Lawrence Berkeley Natl. Lab., Univ. of Pittsburgh, UCSD*.

8:00 VV59 **371.13** Comparison of regional and brain-wide gene coexpression relationships in the human and mouse. E. MYERS*; J. W. BOHLAND. *Boston Univ., Boston Univ.*

9:00 VV60 **371.14** Neuroinformatics for efficient data management and reproducibility in electrophysiology. T. WACHTLER*; A. SOBOLEV; A. STOEWER; C. J. KELLNER; Y. LE FRANC; J. GREWE. *Ludwig-Maximilians-Univ Munich.*

10:00 VV61 **371.15** A whole-genome, RNAi-based screen identifies activating transcription factor 2 (ATF2) genotropic activity as a key mediator of retinal ganglion cell death. D. S. WELSBIE*; K. L. MITCHELL; S. E. MARTIN; J. A. FULLER; Z. YANG; Y. GE; E. BUEHLER; C. A. BERLINICKE; D. J. ZACK. *The Johns Hopkins Univ. Sch. of Med., NIH, The Johns Hopkins Univ. Sch. of Med.*

11:00 VV62 **371.16** A survey of gene expression across cortical areas in the adult mouse and human brains. R. YAN; E. M. MYERS; J. W. BOHLAND*. *Boston Univ., Boston Univ., Boston Univ.*

8:00 VV63 **371.17** Some commonalities in metadata requirements for sharing electrophysiology data. J. L. TEETERS*; K. BOUCHARD; O. RUEBEL; E. CHANG; F. T. SOMMER. *UC Berkeley, UCSF, LBNL.*

9:00 VV64 **371.18** Transcription factor binding site analysis reveals functional gene pathways in cell types important for learned vocal behavior. M. WIRTHLIN*; P. V. LOVELL; C. V. MELLO. *Oregon Hlth. & Sci. Univ.*

POSTER

372. Cellular Models

Theme G: Novel Methods and Technology Development

Mon. 8:00 AM – *Walter E. Washington Convention Center*, Halls A-C

8:00 VV65 **372.01** 3D printouts of neurons and microcircuits. G. M. SHEPHERD*; R. A. MCDOUGAL; R. WANG; T. M. MORSE; N. T. CARNEVALE; L. N. MARENCO; M. MIGLIORE; P. L. MILLER. *Yale Univ. Sch. of Med., Yale Univ. Sch. of Med., VA Connecticut Healthcare Syst., Inst. of Biophysics, Yale Univ. Sch. of Med.*

9:00 VV66 **372.02** A sparse reformulation of the Cable Equation to analyze and simulate active, morphological neuron models. W. WYBO*; D. BOCCALINI; B. TORBEN-NIELSEN; H. MARKRAM; M. GEWALTIG. *École Polytechnique Fédérale De Lausanne, École polytechnique fédérale de Lausanne, Okinawa Inst. of Sci. and Technol.*

10:00 VV67 **372.03** The inheritance of the dendritic temporal input discrimination. A. G. ZIPPO*; G. E. M. BIELLA. *Consiglio Nazionale Delle Ricerche.*

11:00 VV68 **372.04** Dendritic computations may contribute to contextual interactions in the neocortex. L. JIN*; B. F. BEHABADI; C. A. RAMACHANDRA; B. W. MEL. *USC, Qualcomm Inc, USC.*

8:00 VV69 **372.05** The axon initial segment is a strong contributor to a neuron's local extracellular field potential. D. J. BAKKUM*; M. RADIVOJEVIC; D. JAECKEL; F. FRANKE; T. L. RUSSELL; U. FREY; H. TAKAHASHI; A. HIERLEMANN. *ETH Zurich, RIKEN Quantitative Biol. Ctr., The Univ. of Tokyo.*

9:00 VV70 **372.06** Semi-automatic fitting of multi-compartment neuron models to experimental data using MOOSE and Python. Z. JEDRZEJEWSKI-SZMEK; K. L. BLACKWELL*. *George Mason Univ., George Mason Univ.*

10:00 VV71 **372.07** Things that bug me about single neuron models: Misuse of Boltzmann fits, liquid junction potential corrections and complicated time constant expressions. W. R. HOLMES*. *Ohio Univ.*

11:00 VV72 **372.08** A computational study of the role of glia in function recovery after neuromodulator deprivation in lobster stomatogastric neuron models. M. A. HARRINGTON*; M. K. TEMBURNI; T. G. SMOLINSKI. *Delaware State Univ., Delaware State Univ.*

8:00 VV73 **372.09** A system for automated analysis of conductance correlations involved in recovery of electrical activity after neuromodulator deprivation in stomatogastric neuron models. T. G. SMOLINSKI*; A. MALIK; A. A. PRINZ. *Delaware State Univ., Emory Univ.*

9:00 VV74 **372.10** ▲ Do action potentials encode characteristics of presynaptic stimuli? D. C. VANDERWEYEN*; D. R. TUCK; S. A. OPRISAN. *Col. of Charleston.*

10:00 VV75 **372.11** ▲ Fluctuations in network's parameters and their effects on the shape of interval timing output. D. NOVO*; S. A. OPRISAN; C. V. BUHUSI. *Col. of Charleston, Utah State Univ.*

11:00 VV76 **372.12** Multi-scale simulation of extracellular electrode stimulation in the dentate gyrus. P. HENDRICKSON*; K. LOIZOS; J. CLINE; G. LAZZI; T. W. BERGER. *USC, Univ. of Utah, USC.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 VV77 **372.13** Multi-Objective Optimization of a detailed computational model of a CA1 pyramidal neuron. M. HUANG*; J. C. BOUTEILLER; E. HU; T. W. BERGER. *USC.*

9:00 VV78 **372.14** Fully automated multi-objective fitting of morphologically realistic hippocampal CA1 pyramidal cell models. A. ABOUZEID*; W. L. KATH. *Northwestern Univ.*

10:00 VV79 **372.15** Topography-dependent EC-DG-CA3 dynamics in a large-scale biologically realistic model of the rat hippocampus. G. J. YU*; P. HENDRICKSON; J. BOUTEILLER; D. SONG; T. W. BERGER. *USC.*

11:00 VV80 **372.16** An input-output model of the glutamatergic synapse for improved computational efficiency in multi-scale modeling. E. Y. HU*; M. HUANG; J. BOUTEILLER; D. SONG; S. BISCHOFF; M. BAUDRY; T. BERGER. *USC, USC, Rhenovia Pharma, Western Univ.*

8:00 VV81 **372.17** Maximizing predictability of a bottom-up complex multi-scale model through systematic validation and multi-objective multi-level optimization. J. C. BOUTEILLER*; Z. FENG; A. ONOPA; M. HUANG; E. Y. HU; E. SOMOGYI; M. BAUDRY; S. BISCHOFF; T. W. BERGER. *USC, Rhenovia Pharma, USC, USC, Indiana Univ., Western Univ. of Hlth. Sci.*

9:00 VV82 **372.18** Encoding of sensory signals by an energy-constrained neural source encoding mechanism. E. C. JOHNSON; D. L. JONES; R. RATNAM*. *Univ. of Illinois at Urbana-Champaign.*

10:00 VV83 **372.19** A normative model of neural adaptation from first Bayesian principles predicts biophysical properties of neurons. A. TICCHI*; A. FAISAL. *Imperial Col., Univ. of Bologna, Imperial Col. London.*

11:00 VV84 **372.20** Modeling the extracellular action potentials of single neurons towards accurate source localization. M. J. OBIEN*; A. HIERLEMANN; U. FREY. *RIKEN Quantitative Biol. Ctr., ETH Zurich.*

8:00 VV85 **372.21** Context-aware modeling of neuronal morphologies and circuits. B. TORBEN-NIELSEN*; E. DE SCHUTTER. *Okinawa Inst. of Sci. and Technol.*

9:00 VV86 **372.22** Compartmental model optimization predicts altered channel densities and kinetics in aged versus young pyramidal neurons of rhesus monkey prefrontal cortex. T. RUMBELL*; D. DRAGULJIC; J. I. LUEBKE; P. R. HOF; C. M. WEAVER. *Icahn Sch. of Med. at Mount Sinai, Franklin and Marshall Col., Boston Univ. Sch. of Med.*

10:00 VV87 **372.23** ● Novel activation volume methodology for deep brain stimulation. H. S. BOKIL*; D. BLUM; K. STEINKE; M. MOFFITT; C. BUTSON; C. MCINTYRE. *Boston Scientific Neuromodulation, Univ. of Utah, Case Western Reserve Univ.*

11:00 VV88 **372.24** Quantitation and modeling of growth cone morphological dynamics. K. LIM; T. NAKAMURA; Y. SAKUMURA*; K. IKEDA. *Nara Inst. of Sci. and Technol., Advanced Telecommunications Res. Inst. Intl., Tokyo Univ. of Sci., Aichi Prefectural Univ., ERATO Sato Live Bio-Forecasting Project, Japan Sci. and Technol. Agency.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

SYMPOSIUM *Walter E. Washington Convention Center*

374. Exercise, Energy Intake, and the Brain — CME

Mon. 1:30 PM - 4:00 PM — Ballroom B

Chair: M. P. MATTSON
Co-Chair: H. VAN PRAAG

The speakers will describe the cellular signaling and molecular mechanisms that exercise and energy intake modify the structure and functionality of neural circuits involved in learning and memory, and the central role of a brain–islet glucoregulatory system in protecting against diabetes and obesity. Exercise and intermittent fasting engage adaptive cellular stress responses and improve neuronal bioenergetics, which may promote optimal brain health throughout life.

1:30 **374.01** Introduction.

1:35 **374.02** Exercise and the functional integration of new neurons into the hippocampus. H. VAN PRAAG. *Natl. Inst. on Aging.*

2:10 **374.03** Exercise and stress resistance. M. FLESHNER. *Univ. of Colorado at Boulder.*

2:45 **374.04** The brain-centered glucoregulatory system. M. SCHWARTZ. *Univ. of Washington.*

3:20 **374.05** Intermittent energetic challenges and optimal brain health. M. MATTSON. *NIA and Johns Hopkins Univ.*

3:55 **374.06** Closing Remarks.

SYMPOSIUM *Walter E. Washington Convention Center*

375. Repairing and Piloting Neuronal Networks to Control Epilepsy — CME

Mon. 1:30 PM - 4:00 PM — Ballroom A

Chair: C. BERNARD
Co-Chair: I. SOLTESZ

Current antiepileptic drugs fail in 30 percent of patients and have adverse side effects. This symposium will examine two ideal solutions: repairing the circuitry and acting on demand when and where it is needed. After presenting general rules of seizure dynamics, the speakers will show how closed-loop systems can abort seizures with optogenetics and designer receptors exclusively activated by designer drugs. The speakers will also demonstrate how grafts of GABA progenitors can repair the circuitry and discuss the translational value of these findings.

1:30 **375.01** Introduction.

1:35 **375.02** On the nature of seizure dynamics. C. BERNARD. *INSERM U1106.*

2:10 **375.03** On-demand optogenetics: A light-guide in temporal lobe epilepsy. E. KROOK-MAGNUSON. *Univ. of California, Irvine.*

2:45 **375.04** GABA progenitor cell transplantation for the control of recurrent seizures. S. C. BARABAN. *Univ. California San Francisco.*

3:20 **375.05** Optical and chemical closed-loop seizure suppression in neocortical epilepsy. D. KULLMANN. *Univ. Col. London.*

3:55 **375.06** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

376. Characterizing the Roles of Fronto–Cingulo–Subcortical Circuits in Pain, Emotion, and Cognition — CME

Mon. 1:30 PM - 4:00 PM — 145B

Chair: D. SEMINOWICZ

Circuits involving the prefrontal and cingulate cortices along with subcortical areas (e.g., striatum, amygdala, hippocampus, midbrain) are involved in the expression and modulation of pain, cognition, and emotion. Although there is considerable overlap in the regions involved, data from electroencephalography (EEG) and structural and functional MRI from healthy and diseased brain states demonstrate the unique circuits for regulating cognitive, emotional, and perceptual processes.

1:30 **376.01** Introduction.

1:35 **376.02** Prefrontal-subcortical circuitry in prolonged experimental pain and chronic pain conditions. D. A. SEMINOWICZ. *Univ. of Maryland, Baltimore.*

1:55 **376.03** The role of midcingulate cortex in anxiety, pain, and the adaptive control of behavior. A. J. SHACKMAN. *Univ. of Maryland.*

2:15 **376.04** Using prefrontal-cingulate connectivity as a marker for specific psychiatric disorders. A. MAZAHERI. *Univ. of Amsterdam.*

2:35 **376.05** Role of prefrontal-subcortical circuits for expectation-induced hedonic feelings. S. G. LEKNES. *Univ. of Oslo.*

2:55 **376.06** Distinct patterns of fMRI responses in the anterior cingulate for different affective responses. T. D. WAGER. *Univ. of Colorado, Boulder.*

3:15 **376.07** Structure and function of prefrontal-subcortical circuits in adolescents with Autism Spectrum Disorders. S. BRAY. *Univ. of Calgary.*

3:35 **376.08** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

377. Endocannabinoids and Related Mediators in Brain Function — CME

Mon. 1:30 PM - 4:00 PM — Ballroom C

Chair: M. MELIS
Co-Chair: V. DI MARZO

The endocannabinoid system (ECS) participates in neuroprotection, modulation of nociception, regulation of motor activity, neurogenesis, synaptic plasticity, and control of certain phases of memory processing. It also may modulate immune and inflammatory responses, hypothalamic neuropeptide function, and neuronal and astrocyte mitochondrial activity. This minisymposium provides a contextual background on ECS's function in nervous system health and disease.

1:30 **377.01** Introduction.

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:35 **377.02** The where matters: Dissection of CB1 receptor signaling in the brain. G. MARSICANO. *U862 Neurocentre Magendie INSERM.*

1:55 **377.03** Cell type-specific STORM super-resolution imaging of endocannabinoid signaling. I. KATONA. *IEM HAS.*

2:15 **377.04** Cellular and behavioral implications of biased agonism in CB2 cannabinoid receptor signaling. K. MACKIE. *Indiana Univ.*

2:35 **377.05** The role of the endocannabinoid system in leptin control over orexinergic signalling. L. CRISTINO. *Italian Natl. Reseach Council.*

2:55 **377.06** Endocannabinoid synaptopathies in the mesocorticolimbic system. O. MANZONI. *Universitè de la Meditèrranèe*.

3:15 **377.07** Glia and mast cells as targets for the anandamide congener palmitoylethanolamide, an anti-inflammatory and neuroprotective lipid signalling molecule. S. D. SKAPER. *Univ. of Padova.*

3:35 **377.08** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

378. From Objects to Actions: Dynamics in Parietal and Frontal Cortex — CME

Mon. 1:30 PM - 4:00 PM — 146AB

Chair: P. FATTORI
Co-Chair: H. SCHERBERGER

How does the brain process object information to guide actions? Novel imaging and electrophysiological studies in frontal and parietal cortex of humans and nonhuman primates emphasize the importance of distributed network activity for the successful transformation of sensory object information to meaningful reaching and grasping actions. Complementary analysis methods have the potential to jointly challenge and reshape current theories of sensorimotor transformation for object manipulation.

1:30 **378.01** Introduction.

1:35 **378.02** Object processing in parietofrontal grasping circuits. P. JANSSEN. *KU Leuven.*

1:55 **378.03** Sensorimotor transformations for reaching and grasping in posterior parietal cortex. K. HADJIDIMITRAKIS. *Monash Univ.*

2:15 **378.04** Cortical activity in the null space: permitting preparation without movement. M. KAUFMAN. *Stanford Univ.*

2:35 **378.05** Object and grasp representations in macaque fronto-parietal networks. S. SCHAFFELHOFER. *German Primate Ctr.*

2:55 **378.06** Action plan decoding from human frontoparietal networks. J. GALLIVAN. *Queen's Univ.*

3:15 **378.07** Neural dynamics of reach trajectory formation in the parieto-frontal network. P. BERNIER. *Univ. De Sherbrooke.*

3:35 **378.08** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

379. Understanding Mechanisms and Functions of Cortical Rhythms by Selective Interventions — CME

Mon. 1:30 PM - 4:00 PM — 151AB

Chair: C. M. A. PENNARTZ

Cortical rhythms have been associated with a range of cognitive and regulatory functions such as perception, learning, attention, and spatial navigation. However, most studies so far have been correlative or manipulated oscillations by systemic treatment. This minisymposium presents new insight in mechanisms and functions of neocortical and hippocampal oscillations based on selective and time-restricted interventions, combining electrophysiology, behavior and optogenetics, or pharmacology.

1:30 **379.01** Introduction.

1:35 **379.02** Beta and gamma brain rhythms during cognition. X. J.WANG. *New York Univ.*

1:55 **379.03** State-dependent rhythms in sensory cortex circuits. J. A. CARDIN. *Yale Univ.*

2:15 **379.04** Prefrontal oscillatory activity during cue-reward learning and its modulation by NMDA receptors. M. VAN WINGERDEN. *Heinrich-Heine Univ. Düsseldorf.*

2:35 **379.05** Unified circuit mechanisms for grid computation and theta nested gamma oscillations. M. F. NOLAN. *Univ. Edinburgh.*

2:55 **379.06** Connectivity and functional role of local and long-range projecting GABAergic neurons in the hippocampal-entorhinal formation. H. MONYER. *DKFZ / A230.*

3:15 **379.07** The role of gamma oscillations in the perception of weak sensory stimuli. C. A. DEISTER. *Brown Univ.*

3:35 **379.08** Closing Remarks.

ALBERT AND ELLEN GRASS LECTURE
Walter E. Washington Convention Center

380. Cellular and Molecular Mechanisms of Explicit Learning in the Hippocampus — CME

Mon. 3:15 PM - 4:25 PM — Hall D

Speaker: R. A. NICOLL*, Univ. of California, San Francisco.*

Support contributed by: The Grass Foundation

Long-term potentiation (LTP) has remained the most compelling cellular model for learning and memory since its discovery nearly 50 years ago by Bliss and Lomo. The thousands of papers published on LTP can be overwhelming to sift through for experts and novices alike. In this lecture, Nicoll will probe the core properties of LTP, arguing that the dozens of proteins linked to the phenomenon are not essential, but rather modulate the threshold and/or magnitude of LTP.

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

PRESIDENTIAL SPECIAL LECTURE

Walter E. Washington Convention Center

381. The First Steps in Vision: Computation and Repair — CME

Mon. 5:15 PM - 6:25 PM — Hall D

Speaker: B. ROSKA, *Friedrich Miescher Inst. for Biomed. Research, Univ. of Basel., Switzerland*

Support contributed by: Amgen

At the front end of the visual system, a sophisticated image processor, the retina, creates about a dozen movies about the visual scene and presents them to higher visual brain areas. How do the thalamus and the cortex interpret these movies and how does the retina create them? Furthermore, how can we use our understanding of neuronal computations at the front end of the visual system to design repair strategies for blinding diseases? Roska will present a "cell type"-based approach to address these questions.

NANOSYMPOSIUM

382. Disease Modeling Using Pluripotent Stem Cells I

Theme A: Development

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

1:00 **382.01** Modeling neurological diseases using patient ipscs. Y. SHI*; J. CHAO; W. LI; E. TIAN; P. YE; G. SUN. *Beckman Res. Inst. of City of Hope.*

1:15 **382.02** Circuitry-dependent and independent phenotypes of Rett syndrome "disease-in-dish" models. X. CHEN*; X. HAN; B. BLANCHI; W. GE; X. ZHANG; Z. PANG; L. CHENG; T. SÜDHOF; Y. SUN; Y. YU. *UCLA, Tongji Univ., Inst. of Neurobiology, Inst. of Brain Sci. and State Key Lab. of Med. Neurobio., Child Hlth. Inst. of New Jersey, Tongji Hosp., Stanford Univ. Sch. of Med.*

1:30 **382.03** Deficits in core synaptic signatures in a human iPSC model of major mental disorders with a 4bp-frame-shift mutation in DISC1 gene. Z. WEN*; H. NGUYEN; Z. GUO; M. A. LALLI; J. SHIN; X. WANG; Y. SU; N. KIM; K. YOON; C. ZHANG; R. MAGOLIS; G. CHEN; K. S. KOSIK; H. SONG; G. MING. *Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., The Pennsylvania State Univ., Univ. of California, Johns Hopkins Univ. Sch. of Med.*

1:45 **382.04** Generation of human spastin-deficient pluripotent stem cells and neurons to model hereditary spastic paraplegia *in vitro*. K. DOBRINDT*; M. PEITZ; L. SCHOELS; O. BRUESTLE. *Inst. of Reconstructive Neurobio., Dept. for Neurodegenerative Diseases, Hertie Inst. for Clin. Brain Res.*

2:00 **382.05** Genetic correction of tauopathy phenotypes in neurons derived from human induced pluripotent stem cells. H. FONG*; C. WANG; J. KNOFERLE; D. WALKER; M. BALESTRA; L. M. TONG; L. LEUNG; K. L. RING; Y. HUANG. *J. David Gladstone Inst., Univ. of California, San Francisco.*

2:15 **382.06** Modeling subcortical band heterotopia using patient-derived cerebral organoids. C. ZHANG*; H. NGUYEN; K. YOON; Z. WEN; J. SHIN; J. SHIM; J. THAKOR; X. QIAN; K. CHRISTIAN; G. KRAUSS; H. SONG; G. MING. *Inst. For Cell Engin., Grad. Program In Cell. and Mol. Med., Dept. of Neurol.*

2:30 **382.07** Regulation of inhibitory synaptic transmission by hPEM-2 in human induced neuronal cells. S. CHANDA*; D. HAAG; C. E. ANG; N. YANG; J. KIM; Y. S. KIM; T. C. SÜDHOF; M. WERNIG. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ.*

2:45 **382.08** Cell-autonomous phenotypes in rett syndrome ipsc-derived astrocytes. Q. DONG*; Q. CHANG. *Univ. of Wisconsin-Madison.*

3:00 **382.09** Astrocytes from ALS patient iPSCs result in neuron degeneration *in vivo*. H. CHEN*; K. QIAN; L. BLACKBOURN IV; A. ERRIGO; A. ERRIGO; Z. DU; S. ZHANG. *Waisman Ctr.*

3:15 **382.10** Brain organoid and disease model. G. SUN*; Y. SHI. *City of Hope Beckman Res. Inst.*

3:30 **382.11** The use of iPS cells toward the treatment of neurodegenerative diseases. H. INOUE*. *CiRA, Kyoto Univ., JST, CREST.*

3:45 **382.12** ● Dysmyelination and enhanced ER stress response in Pelizaeus-Merzbacher disease patients iPSCs-derived oligodendrocytes with PLP1 gene missense mutations. Y. NUMASAWA*; Y. OKADA; S. SHIBATA; S. KAWABATA; N. KISHI; W. AKAMATSU; M. SHOUJI; A. NAKANISHI; H. OSAKA; K. INOUE; S. YAMANAKA; K. KOSAKI; M. NAKAMURA; T. TAKAHASHI; H. OKANO. *Dept. of Pediatrics, Sch. of Medicine, Keio, Juntendo Univ. Grad. Sch. of Med., Dept. of Neurology, Sch. of Medicine, Aichi Med. Univ., Dept. of Physiology, Sch. of Medicine, Keio Univ., Dept. of Orthopaedic Surgery, Sch. of Medicine, Keio Univ., Advanced Sci. Res. Laboratories, Takeda Pharmaceut. Co. Limited, Dept. of Pediatrics, Jichi Med. Sch., Dept. of Mental Retardation and Birth Defect Research, Natl. Inst. of Neuroscience, Natl. Ctr. of Neurol. and Psychiatry, Ctr. for Induced Pluripotent Stem Cell Res. and Application, Grad. Sch. of Medicine, Inst. for Frontier Med. Sciences, Kyoto Univ., Ctr. for Med. Genetics, Sch. of Medicine, Keio Univ.*

4:00 **382.13** Modeling a risk factor for schizophrenia in iPSCs and mice reveals defects in adherens junctions and polarity of human and mouse neural stem cell. K. YOON*; H. NGUYEN; G. MING; H. SONG. *Johns Hopkins Univ., Johns Hopkins Univ.*

4:15 **382.14** Use of Human iPS cells to study the neurobiology of Rett syndrome. X. TANG*; J. KIM; L. ZHOU; L. ZHANG; C. CARROMEU; A. R. MUOTRI; F. H. GAGE; G. CHEN. *Penn State Univ., Univ. of California San Diego, Sch. of Med., The Salk Inst.*

NANOSYMPOSIUM

383. Microglia

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

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

1:00 **383.01** Epigenetic regulation of the JAK/STAT pathway in microglial activation. R. PATNALA*; T. S. DHEEN. *Natl. Univ. of Singapore.*

1:15 **383.02** Differential release of cytokines by spinal and brain microglia due to glutamatergic injury. S. BASKAR JESUDASAN; M. A. CHURCHWARD; K. G. TODD; I. R. WINSHIP*. *Univ. of Alberta, Univ. of Alberta, Univ. Alberta.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:30 **383.03** The glial and stress response to Aβ plaques is altered in C3-deficient APP/PS1 mice. Q. SHI*; S. CHOWDHURY; R. MA; K. LE; J. L. FROST; J. KENISON; S. HONG; K. MERRY; O. BUTOVSKY; K. J. COLODNER; B. STEVENS; C. A. LEMERE. *Brigham and Women's Hospital, Harvard Med. Sch., Boston Children's Hosp., Boston Univ., 5Mount Holyoke Col.*

1:45 **383.04** Impacts of glutamate and LPS on microglial activation regarding additive neurotoxic effects *in vitro.* S. JUNG*; F. BRACKMANN; R. TROLLMANN. *Univ. of Erlangen, Univ. Hosp. Erlangen.*

2:00 **383.05** microRNA-27a targets Smad2, a key mediator of TGF-β signalling in microglia. S. JADHAV*; V. TANAVDE; S. THAMEEM DHEEN. *Natl. Univ. of Singapore, Bioinformatics Inst.*

2:15 **383.06** Morphology alone does not define microglial phenotype. J. M. ZIEBELL*; J. LIFSHITZ. *Univ. of Arizona, Phoenix Children's Hosp.*

2:30 **383.07** Sympathetic initiation of myeloid cell trafficking from the spleen to the brain caused the re-establishment of anxiety in stress-sensitized mice. D. B. MCKIM*; J. M. PATTERSON; E. S. WOHLEB; B. JARRETT; J. F. SHERIDAN; J. P. GODBOUT. *The Ohio State Univ.*

2:45 **383.08** Phospholipase A2 in Abeta clearance by microglia. L. DONG*; C. B. EST; K. B. HENDERSON; J. C. LEE. *Univ. of Missouri, Univ. of Missouri.*

3:00 **383.09** Phagocytosis of Microglia in radiation-induced brain injury. Y. TANG*; Z. LI; P. XU; X. SHI. *Sun Yat-Sen Mem. Hospital, Sun Yat-Sen Univ., Sun Yat-sen Mem. Hospital, Sun Yat-sen Univ.*

3:15 **383.10** Microglial phenotype changes and C5aR1 expression in chronic mouse models of epilepsy. M. J. BENSON*; S. MANZANERO; K. BORGES. *The Univ. of Queensland, Australian Inst. for Bioengineering and Nanotechnology.*

NANOSYMPOSIUM

384. Synaptic Signaling and Neurotransmitter Deficits in Alzheimer's disease

Theme C: Disorders of the Nervous System

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

1:00 **384.01** Classical complement cascade mediates early synapse loss in Alzheimer's disease mouse models. S. HONG*; K. MERRY; S. RAMAKRISHNAN; B. NFONOYIM; Q. SHI; B. A. BARRES; C. A. LEMERE; D. J. SELKOE; B. STEVENS. *Boston Children's Hosp. and Harvard Med. Sch., Brigham and Women's Hosp. and Harvard Med. Sch., Stanford Univ. Sch. of Med.*

1:15 **384.02** Glutamate neurotransmission is altered prior to cognitive decline in APP/PS1 mice, a mouse model of Alzheimer's disease. K. N. HASCUP; S. PEHLMAN-REETER; E. R. HASCUP*. *SIU Sch. of Med., SIU Sch. of Med.*

1:30 **384.03** Temporal relationship between synaptic activity and Abeta generation *in vivo.* J. R. CIRRITO*; C. M. YUEDE; C. LI. *Washington Univ., Florida Intl. Univ.*

1:45 **384.04** Structural and functional deficits at hippocampal pre- and postsynaptic sites are reversed by stabilizing calcium in 3xTg-AD mice. G. E. STUTZMANN; C. SCHNEIDER; S. CHAKROBORTY*; J. WICKS; N. KAPECKI; D. T. CHRISTIAN; S. WIERSEMA; D. MAHER; C. BRANDON; F. SEILER; B. VERTEL. *Rosalind Franklin Univ., Univ. of Pittsburgh Sch. of Med., Rosalind Franklin Univ., Rosalind Franklin Univ., Rosalind Franklin Univ.*

2:00 **384.05** Loss of spatial memory, learning and motor coordination during normal aging is accompanied by changes in CNS Presenilin 1 and 2 expression levels. S. KAJA*; N. SUMIEN; V. V. SHAH; I. M. PUTHAWALA; A. N. MAYNARD; N. KHULLAR; A. J. PAYNE; M. J. FORSTER; P. KOULEN. *Univ. of Missouri - Kansas City, Univ. of North Texas Hlth. Sci. Ctr., Univ. of Missouri - Kansas City.*

2:15 **384.06** Amyloid-β (Aβ) protein-induced alterations of synaptic function depend on its intraneuronal accumulation. C. RIPOLI*; S. COCCO; A. MASTRODONATO; D. D. LI PUMA; R. PIACENTINI; F. SCALA; M. D'ASCENZO; C. GRASSI. *Univ. Cattolica.*

2:30 **384.07** Video analysis of cofilin transport in dendritic spines. A. ZAHEDI*; V. ON; C. W. COTMAN; B. BHANU; I. ETHELL. *Univ. of California Riverside, Univ. of California, Riverside, Univ. of California Irvine, Univ. of California, Riverside.*

2:45 **384.08** The study of age-dependent changes in hippocampal network transmission in the triple transgenic Alzheimer's disease mouse model. S. H. JEON*; J. TURNER. *Univ. of Manchester.*

3:00 **384.09** α_{2A} adrenergic receptor promotes amyloidogenesis through disrupting APP interaction with SorLA. Q. WANG*; Y. CHEN; Y. PENG; P. CHE; M. GANNON; L. LI; G. BU; T. VAN GROEN; K. JIAO. *Univ. Alabama, Birmingham, Univ. of Minnesota, Mayo Clin., Univ. Alabama, Birmingham.*

3:15 **384.10** The mechanism of diosgenin-induced cognitive enhancement in Alzheimer's disease model mice and normal mice. C. TOHDA*; X. YANG; Y. LEE; Y. GOTO; I. NEMERE. *Inst. of Natural Medicine, Univ. of Toyama, Kyoto Univ., Utah State Univ.*

NANOSYMPOSIUM

385. Neuroimaging in Alzheimer's disease and Tauopathies

Theme C: Disorders of the Nervous System

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

1:00 **385.01** Visualization of tau lesions in tauopathy brains using tau ligand PBB3. N. SAHARA*; M. ONO; S. KOGA; J. MAEDA; I. MATSUMOTO; D. W. DICKSON; Z. K. WSZOLEK; M. ZHANG; T. SUHARA; M. HIGUCHI. *Natl. Inst. of Radiological Sci., Mayo Clin.*

1:15 **385.02** Aberrant fMRI activity in the medial temporal lobe is related to cortical amyloid-beta deposition in cognitively normal elderly. Z. SONG*; D. C. PARK. *Univ. of Texas at Dallas.*

1:30 **385.03** Brain correlates of subjective cognitive complaint differ between healthy elderly individuals with and without β-amyloid pathology. J. W. VOGEL*; M. VARGA DOLEZALOVA; R. LA JOIE; S. M. LANDAU; A. FERO; S. M. MARKS; H. D. SCHWIMMER; W. J. JAGUST. *Univ. of California-Berkeley, Lawrence Berkeley Natl. Lab.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:45 **385.04** A neuroimaging model for loss of financial capacity in Alzheimer's disease. D. L. KERR*; T. A. BARTEL; D. G. MCLAREN; D. C. MARSON. *The Univ. of Alabama At Birmingham, Massachusetts Gen. Hosp. and Harvard Med. Sch.*

2:00 **385.05** Brain glutathione depletion in Alzheimer's disease: A magnetic resonance spectroscopic study. P. K. MANDAL*; S. SAHARAN; G. MURARI; M. TRIPATHI. *Nat'l Brain Res. Ctr., Johns Hopkins Med., Natl. Brain Res. Ctr., AIIMS.*

2:15 **385.06** ● Imaging neuroinflammation in mice using the 18F-GE180 TSPO PET tracer. 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 Hosp. and Harvard Med. Sch., GE Healthcare.*

2:30 **385.07** Structural consequences of amyloid burden across the adult lifespan. G. N. BISCHOF*; K. M. KENNEDY; I. MCDONOUGH; K. M. RODRIGUE; J. R. RIECK; M. D. DEVOUS, SR; D. C. PARK. *Univ. of Texas At Dallas, Ctr. For Vital Longevity, UT Southwestern Med. Ctr. & Univ. of Texas at Dallas.*

2:45 **385.08** Diffusion tensor imaging detects widespread white matter alterations in pericyte-deficient mice. M. DAIANU*; N. JAHANSHAD; R. JACOBS; B. V. ZLOKOVIC; A. MONTAGNE; P. M. THOMPSON. *Imaging Genet. Ctr., USC, Caltech, USC.*

NANOSYMPOSIUM

386. Neurodegeneration Mechanisms in Parkinson's disease

Theme C: Disorders of the Nervous System

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

1:00 **386.01** Pathogenic mutations in LRRK2 enhance pro-inflammatory responses. M. S. MOEHLE*; J. P. L. DAHER; A. B. WEST. *Univ. of Alabama At Birmingham.*

1:15 **386.02** LRRK2 kinase activity modulates neuroinflammation in microglia cells. I. RUSSO*; G. BERNARDO; L. CIVIERO; L. BUBACCO; E. GREGGIO. *Univ. of Padova.*

1:30 **386.03** Alpha synuclein loss-of-function toxicity can be rescued by a non-aggregatable form of the protein. M. J. BENSKEY*; C. JIANG; C. E. SORTWELL; N. KANAAN; F. P. MANFREDSSON. *Michigan State Univ., Michigan State Univ., Univ. of Texas.*

1:45 **386.04** Role of microRNA-155 in modulating inflammation in an alpha-synuclein model of Parkinson Disease. A. D. THOME*; A. S. HARMS; D. G. STANDAERT. *Univ. of Alabama At Birmingham.*

2:00 **386.05** Looking at microtubule dysfunction in Parkinson's disease: From Parkin knockout mice to human iPSC-derived neurons. G. CAPPELLETTI*; D. CARTELLI; F. CASAGRANDE; C. DE GREGORIO; A. CALOGERO; J. SASSONE; H. OKANO; N. KUZUMAKI; A. AMADEO. *Univ. Degli Studi Di Milano, IRCCS Inst. Auxologico Italiano, Keyo Univ.*

2:15 **386.06** Reductions of the activity of store-operated calcium channel by proteasome inhibition through autophagy induction. S. WU*; X. KUANG; F. LIU; Y. LIU; H. CHEN. *Wenzhou Med. Univ., Wenzhou Med. Univ.*

2:30 **386.07** ● Glucocerebrosidase regulates motor and cognitive activities in mouse models of synucleinopathies. S. SARDI*; C. VIEL; J. CLARKE; M. CHAN; N. PANARELLO; C. TRELEAVEN; J. BU; L. STANEK; L. SWEET; M. PASSINI; J. DODGE; S. CHENG; L. SHIHABUDDIN. *Genzyme, a Sanofi Co.*

2:45 **386.08** Intracellular bacteria in post mortem Parkinson's brains. J. CHROSTOWSKI*; K. RIVERA; A. MICELI; C. HUSKO; G. TORRES; M. K. SELIG; H. BRUEGGEMANN; J. R. LEHESTE. *New York Inst. of Technol. Col. of Osteop, Massachusetts Gen. Hosp., Aarhus Univ.*

3:00 **386.09** Profound putamen catecholamine depletion in Gaucher/Parkinson disease: Role of decreased vesicular sequestration. D. S. GOLDSTEIN*; P. SULLIVAN; N. TAYEBI; E. AFLAKI; E. SIDRANSKY. *NINDS NIH, NHGRI.*

3:15 **386.10** Dopamine, hypochlorite and Parkinson's disease. N. J. MEHTA; K. A. BENINGO; D. NJUS*. *Wayne State Univ.*

3:30 **386.11** Synergistic toxicity of synuclein and DOPAL in neurodegeneration. L. BUBACCO*; N. PLOTEGHER; I. TESSARI; E.FERRARI; S. GIROTTO; M. DALLA SERRA; E. GREGGIO; M. BISAGLIA; L. CASELLA. *Univ. of Padova, Univ. of Pavia, Dept. of Drug Discovery and Development, IIT, Inst. of Biophysics, CNR.*

3:45 **386.12** Introduction to novel retromer function in neurones and implications for the pathophysiology of parkinsonism and Alzheimer's disease. M. J. FARRER*. *Univ. of British Columbia.*

4:00 **386.13** The retromer complex and associated proteins: New insights into the pathology of Parkinson's disease. M. SEAMAN*. *Univ. of Cambridge.*

4:15 **386.14** The retromer-associated endosome in the pathophysiology of Alzheimer's disease. S. A. SMALL*. *Columbia Univ. Med. Ctr.*

4:30 **386.15** Parkinsonism, mutant VPS35, and novel retromer functions in neurons. A. J. MILNERWOOD*; L. N. MUNSIE; P. SEIBLER; D. BECCANO-KELLY; M. VOLTA; C. KLEIN; M. J. FARRER. *Univ. of British Columbia, Univ. of British Columbia, Univ. of Lubeck.*

NANOSYMPOSIUM

387. Cocaine: New Findings on Neural Mechanisms

Theme C: Disorders of the Nervous System

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

1:00 **387.01** CYFIP2 is a key regulator of cocaine response. V. KUMAR*; J. TAKAHASHI. *Univ. of Texas, Southwestern Med. Ctr., UT Southwestern.*

1:15 **387.02** Let it SNO: S-nitrosylation of matrix metalloproteinases following cocaine exposure mediates vulnerability to cocaine relapse. A. W. SMITH*; M. D. SCOFIELD; M. LORANG; P. W. KALIVAS. *Med. Univ. of South Carolina, Col. of Charleston.*

1:30 **387.03** Within animal comparison of neuronal activation patterns associated with novelty and cocaine in the nucleus accumbens and prefrontal cortex. N. NAWARAWONG*; M. J. MUELBL; Y. LIM; C. M. OLSEN. *Med. Col. of Wisconsin, Med. Col. of Wisconsin.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:45 **387.04** Activin/Smad3 induction in the nucleus accumbens mediates cocaine relapse. A. M. GANCARZ*; G. SCHROEDER; D. N. ADANK; C. PANGANIBAN; M. S. HUMBY; K. BRAUNSCHEIDEL; D. THORN; A. J. ROBISON; J. LI; R. L. NEVE; D. M. DIETZ. *State Univ. of New York At Buffalo, Michigan State Univ., MIT.*

2:00 **387.05** Social stress, impulsivity and escalated cocaine taking: A social model of inhibitory control toward threatening stimuli in rats. C. O. BOYSON*; A. R. BURKE; K. A. MICZEK. *Tufts Univ.*

2:15 **387.06** Exposure to social adverse environment in early age induces vulnerability to drug-addiction in adulthood. V. CAROLA*; L. LO IACONO; A. VALZANIA; F. VISCO-COMANDINI; L. ROSCINI; A. FELSANI; E. ARICÒ; S. CABIB; S. PUGLISI-ALLEGRA. *IRCSS Fondazione Santa Lucia, IRCSS Fondazione Santa Lucia, Univ. "La Sapienza", CNR, ISS.*

2:30 **387.07** A 5-HT1A receptor-mediated mechanism in the bed nucleus of the stria terminalis is associated with cocaine-seeking behavior. S. R. WRIGHT*; I. YOU; S. WEE. *The Scripps Res. Inst.*

2:45 **387.08** GABRA2 variations influence subjective responses to methylphenidate and methylphenidate-facilitation of conditioned reinforcement. D. N. STEPHENS*; C. I. DIXON; L. TRICK; H. S. CROMBAG; S. L. KING; T. DUKA. *Univ. of Sussex.*

NANOSYMPOSIUM

388. Neural Processing of Natural Sounds

Theme D: Sensory and Motor Systems

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

1:00 **388.01** The 5-HT1A receptor changes the temporal structure of responses to social vocalizations in the inferior colliculus. L. M. HURLEY*. *Indiana Univ.*

1:15 **388.02** Modulation of core auditory cortex single unit responses by vocalization categories depends on behavioral relevance. K. N. SHEPARD*; K. CHONG; F. LIN; C. ZHAO; R. C. LIU. *Emory Univ., Georgia Inst. of Technol., Emory Univ.*

1:30 **388.03** Oxytocin receptors in left auditory cortex enable learned social behavior. B. JONES MARLIN*, M. MITRE, J. A. D'AMOUR, M. V. CHAO, R. C. FROEMKE. *New York University, Sch. of Med., New York University, Sch. of Med., New York University.*

1:45 **388.04** A neural signature of individual variation in learning accuracy. D. L. MOSELEY*; N. R. JOSHI; J. PODOS; L. REMAGE-HEALEY. *Univ. of Massachusetts Amherst, Amherst Col., Univ. of Massachusetts Amherst, Univ. of Massachusetts Amherst.*

2:00 **388.05** ● Comparative evolutionary perspective of vocal learning and von Economo neurons in vocal learner animals. S. SRIVASTAVA*; S. SHRIVASTAVA. *Dept. of Zoology K N P G College, Gyanpur S R N Bhadohi U P India, Barkatullah, Univ. Bhopal (M. P) India.*

2:15 **388.06** central brain neurons expressing doublesex regulate female receptivity in *Drosophila.* C. ZHOU*; Y. PAN; C. C. ROBINETT; G. W. MEISSNER; B. S. BAKER. *Janelia Farm Res. Campus.*

2:30 **388.07** Sensorimotor predictive coding in the auditory cortex during vocal production in the macaque monkey. M. FUKUSHIMA*; M. MULLARKEY; A. M. DOYLE; R. C. SAUNDERS; N. FUJII; B. B. AVERBECK; M. MISHKIN. *NIH/NIMH, RIKEN BSI.*

2:45 **388.08** How is the human brain organized to process every day real-world sounds ranging from vocalizations to sound-producing action events? P. J. WEBSTER*; C. FRUM; J. W. LEWIS. *West Virginia Univ.*

3:00 **388.09** Responses to natural sounds reveal the functional organization of human auditory cortex. S. V. NORMAN-HAIGNERE*; J. H. MCDERMOTT; N. KANWISHER. *MIT, MIT.*

NANOSYMPOSIUM

389. Retinal Processing

Theme D: Sensory and Motor Systems

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

1:00 **389.01** Concerted effects of synaptic and spiking adaptation in retinal output. B. SUH*; S. BACCUS. *Stanford Univ.*

1:15 **389.02** A causal link between cortical and retinal computation of motion direction. D. HILLIER*; M. FISCELLA; A. DRINNENBERG; S. ROMPANI; Z. RAICS; G. KATONA; J. JUETTNER; A. HIERLEMANN; B. RÓZSA; B. ROSKA. *Friedrich Miescher Inst., ETH-DBSSE, Inst. for Exptl. Med.*

1:30 **389.03** Lack of Protein Inhibitor of Activated STAT3 (PIAS3) impairs the function of mouse cone photoreceptors. J. E. ROGER*; C. CAMPLA; Y. LI; H. QIAN; A. SWAROOP. *CERTO, NIH, NIH.*

1:45 **389.04** ● Ultrastructural connectomics reveals the entire chemical and electrical synaptic cohort of an ON cone bipolar cell in the inner plexiform layer of the rabbit retina. S. LAURITZEN*; C. L. SIGULINSKY; D. P. EMRICH; J. M. DUDLESTON; N. T. NELSON; R. L. PFEIFFER; N. R. SHERBOTIE; J. V. HOANG; J. R. BROWN; C. B. WATT; J. R. ANDERSON; B. W. JONES; R. E. MARC. *Univ. of Utah.*

2:00 **389.05** Inhibitory inputs originating from starburst amacrine cells play distinct roles in the direction selective circuit of the retina. W. WEI*; Z. PEI; Q. CHEN; D. KOREN. *Univ. of Chicago, The Univ. of Chicago.*

2:15 **389.06** Understanding modulatory computations in neural pathways of the retina. N. NATEGH*; M. MANU; S. A. BACCUS. *Montana State Univ., Stanford Univ.*

2:30 **389.07** Resampling of the visual signal by Off bipolar cells at the mammalian cone photoreceptor synapse. S. H. DEVRIES*. *Northwestern Univ. Med. Sch.*

2:45 **389.08** The influence of dopamine on contrast sensitivity in physiologically defined retinal ganglion cells. M. L. RISNER*; D. SPRINZEN; D. G. MCMAHON. *Vanderbilt Univ.*

3:00 **389.09** The role of dopamine on light adaptation of physiologically defined retinal ganglion cells. D. SPRINZEN*; M. L. RISNER; D. G. MCMAHON. *Vanderbilt.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

NANOSYMPOSIUM

390. Pain Imaging: From Neural Circuits to Perception

Theme D: Sensory and Motor Systems

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

1:00 **390.01** Evidence of brain glial activation in chronic low back pain patients. M. L. LOGGIA*; D. CHONDE; O. AKEJU; G. ARABASZ; C. CATANA; R. EDWARDS; E. HILL; S. HSU; D. IZQUIERDO-GARCIA; R. JI; V. NAPADOW; M. RILEY; A. WASAN; N. ZÜRCHER; B. ROSEN; J. HOOKER. *Massachusetts Gen. Hosp. / Harvard Med. Sch., Brigham and Women's Hosp. / Harvard Med. Sch., Tufts Univ. Sch. of Med., Duke Univ. Med. Ctr., Kyung Hee Univ., Univ. of Pittsburgh Med. Ctr.*

1:15 **390.02** The frontal polar cortex may encode the cognitive load of pain. M. MOAYEDI; T. MEEKER; S. KHAN; D. SEMINOWICZ*. *Univ. Col. London, Univ. of Maryland, Baltimore.*

1:30 **390.03** Dishabituation of nociceptive ERPs is dependent on changes of stimulus location in egocentric coordinates. M. MOAYEDI*; G. DI STEFANO; G. IANNETTI. *Univ. College, London, Univ. of Rome 'La Sapienza'.*

1:45 **390.04** Functional connectivity in salience and sensorimotor brain networks relates to pain and fatigue in ankylosing spondylitis. K. S. HEMINGTON*; Q. WU; A. KUCYI; R. D. INMAN; K. D. DAVIS. *Toronto Western Res. Inst., Univ. Hlth. Network, Univ. of Toronto, Univ. of Toronto, Univ. of Toronto.*

2:00 **390.05** Pain and cognitive neural processing in migraine and the influence of disease severity and pain catastrophizing. V. A. MATHUR*; S. A. KHAN; C. S. HUBBARD; M. L. KEASER; M. GOYAL; D. A. SEMINOWICZ. *Univ. of Maryland, Johns Hopkins Univ., Johns Hopkins Univ.*

2:15 **390.06** Expectations modulate long-term habituation and significantly influence connectivity between pain-processing areas in a standardized heat pain paradigm. I. S. ELLERBROCK*; A. MAY. *Univ. Med. Ctr. Hamburg-Eppendorf.*

2:30 **390.07** ● Transcranial direct current stimulation: Modulating functional connectivity across pain networks. V. SANKARASUBRAMANIAN*; D. CUNNINGHAM; S. ROELLE; K. POTTER-BAKER; E. BEALL; A. MACHADO; E. PLOW. *Cleveland Clin., Imaging Institute, Mellen Ctr., Ctr. for Neurolog. Restoration, Cleveland Clin., Neurolog. Institute, Cleveland Clin.*

2:45 **390.08** Task-negative network dysfunction in fibromyalgia patients is related to lack of modulation by cognitive load. M. CEKO*; J. L. GRACELY; M. FITZCHARLES; D. A. SEMINOWICZ; P. SCHWEINHARDT; M. BUSHNELL. *NIH/NCCAM, NCCAM/NIH, McGill Univ., Univ. of Maryland.*

3:00 **390.09** Assessing mean diffusivity in gray matter regions in a sample of fibromyalgia patients. N. FEIER*; M. CEKO; M. FITZCHARLES; P. SCHWEINHARDT. *McGill Univ., McGill Univ., Natl. Inst. of Hlth., McGill Univ.*

3:15 **390.10** Obligatory components of laser-evoked potentials. F. MANCINI*; G. DI STEFANO; A. MOURAUX; G. IANNETTI. *UCL, Universita' La Sapienza, Univ. Catholique de Louvain, Univ. Col. London.*

3:30 **390.11** ● Duloxetine and placebo treatments induce region-specific modification of gray matter density in osteoarthritis pain patients. P. TÉTREAULT*; M. N. BALIKI; É. VACHON-PRESSEAU; H. HISSAIN; M. FARMER; A. T. BARIA; T. J. SCHNITZER; A. V. APKARIAN. *Northwestern Univ., Northwestern Univ., Northwestern Univ.*

3:45 **390.12** Pharmacological analysis of cortical spreading depression in familial hemiplegic migraine type-1 mice. S. M. CAIN*; B. BOHNET; H. HAN; A. C. YUNG; P. KOZLOWSKI; B. A. MACVICAR; T. P. SNUTCH. *Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia.*

NANOSYMPOSIUM

391. Cellular Effects of Stress

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

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

1:00 **391.01** Early intervention with intranasal neuropeptide prevents single prolonged stress triggered neuroendocrine impairments in hypothalamus and ventral hippocampus. M. LAUKOVA; L. G. ALALUF; L. I. SEROVA; V. ARANGO; E. L. SABBAN*. *New York Med. Coll, New York State Psychiatric Inst.*

1:15 **391.02** Characterization of specific neuronal types in the bed nucleus of the stria terminalis aided by using multiple transgenic mouse lines. A. Q. NGUYEN; X. XU*. *Univ. of California, Irvine, Univ. California, Irvine.*

1:30 **391.03** Biochemical and genetic evidence of the role of Akt signaling in fear memory processing and depression-like behaviors. T. F. FRANKE*. *NYU Sch. of Med.*

1:45 **391.04** Tau and FKBP51 cause depressive-like symptoms by regulating glucocorticoid signaling. J. J. SABBAGH*; J. C. O'LEARY, III; L. J. BLAIR; S. N. FONTAINE; C. A. DICKEY. *Univ. of South Florida.*

2:00 **391.05** KDM1A inhibition as an epigenetic priming strategy for attenuation of stressful memories. M. RIAZ*; M. BOHLEN; L. GOLDEN; I. A. PAUL; V. DURIC; R. S. DUMAN; C. A. STOCKMEIER. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Yale Univ.*

2:15 **391.06** Deficiency of CREB3/Luman results in maternal behavioral defects and stress/anxiety-related behavioral disorders in mice: a role of Luman in glucocorticoid signaling and neural protection. J. PENNEY; K. TRAN; M. ZENG; T. AMOR; J. LYMER; A. CARUSO; A. MCCLUGGAGE; P. TURNER; N. MACLUSKY; E. CHOLERIS; R. LU*. *Univ. of Guelph.*

2:30 **391.07** Adaptation or sensitization to proteotoxic stress is dependent upon changes in glutathione. R. K. LEAK*; A. M. GLEIXNER; A. S. UNNITHAN; H. J. H. CHOI; J. WEILNAU. *Duquesne Univ.*

2:45 **391.08** Stress-induced glucocorticoid signaling remodels neurovascular coupling through impairment of cerebrovascular inwardly rectifying potassium channel function. T. A. LONGDEN; F. DABERTRAND; S. E. HAMMACK*; M. T. NELSON. *Univ. of Vermont Col. of Med., Univ. of Vermont.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 **391.09** Optogenetic stimulation of serotonergic neurons induces chaperone upregulation in distal tissues of Caenorhabditis elegans. V. PRAHLAD*; M. TATUM; M. R. CHIKKA; L. A. MARTINEZ-VELAZQUEZ; L. CHAUVE; R. I. MORIMOTO. *Univ. of Iowa, Yale Univ. Sch. of Med., Northwestern Univ.*

3:15 **391.10** Changes to the proteome of the adrenal medulla evoked 20 min to 24 h after a single episode of glucoprivation. A. K. GOODCHILD*; P. BOKINIEC; S. F. HASSAN; L. M. PARKER; R. VANDER WALL; P. HAYNES; M. Z. MOGHADDAM; M. MIRZAEI. *The Australian Sch. of Advanced Medicine, Macquarie Univ., CBMS, Macquarie Univ., Texas Tech. Univ.*

3:30 **391.11** Cellular stress induces a protective sleep response in *C. elegans.* A. J. HILL*; J. M. N. G. LOPEZ; R. MANSFIELD; C. VAN BUSKIRK. *California State Univ. Northridge.*

NANOSYMPOSIUM

392. Brain Wellness: Metabolism and Energetics

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

Mon. 1:00 PM – *Walter E. Washington Convention Center*, 206

1:00 **392.01** Insulin resistance predicts glucose uptake in Alzheimer's disease converters and early Alzheimer's disease patients. A. A. WILLETTE*; D. KAPOGIANNIS. *Natl. Inst. On Aging.*

1:15 **392.02** Whole-genome sequencing to identify genes implicated in familial parkinsonian tauopathy. M. Y. SANCHEZ-CONTRERAS*; S. FUJIOKA; C. POTTIER; A. J. STRONGOSKY; B. F. BOEVE; J. E. PARISI; P. M. TACIK; N. AOKI; M. C. BAKER; V. SOSSI; D. W. DICKSON; A. STOESSL; O. A. ROSS; Z. K. WSZOLEK; R. RADEMAKERS. *Mayo Clin., Mayo Clin., Mayo Clin., Univ. of British Columbia, Univ. of British Columbia & Vancouver Coastal Hlth.*

1:30 **392.03** Roles of ketone bodies in neuronal energy metabolism and plasticity. K. MAROSI*; A. CHENG; R. WAN; S. CAMANDOLA; M. P. MATTSON. *NIH.*

1:45 **392.04** Metabolic sensing circuits of the insular cortex. I. DE ARAUJO SALGADO; C. M. LAMY*. *Univ. of Fribourg.*

2:00 **392.05** ● Effects of CRHR1 blockade on fear and spatial memory in relationship to BDNF mRNA and protein levels in the amygdala and hippocampus post global cerebral ischemia in male rats. P. BARRA DE LA TREMBLAYE*; M. BONNEVILLE; S. SCHOCK; C. THOMPSON; A. M. HAKIM; H. PLAMONDON. *Behavioral Neuroscience, Univ. of Ottawa, Univ. of Ottawa, Univ. of Ottawa.*

2:15 **392.06** Azaphilones: A novel class of tau aggregation inhibitors. S. PARANJAPE*; Y. CHIANG; A. SOMOZA; C. C. WANG; B. R. OAKLEY; T. C. GAMBLIN. *Univ. of Kansas, USC, Chia Nan Univ. Sch. of Pharm. and Sci., Colorado State Univ., USC.*

2:30 **392.07** ● Effect of endurance exercise on the brain of Polg mutator mice. J. CLARK*; A. SALEEM; R. WANG; Y. DAI; X. MA; A. SAFDAR; M. TARNOPOLSKY; D. K. SIMON. *BIDMC/ Harvard Med. Sch., McMaster Univ., Beth Israel Deaconess Med. Ctr.*

2:45 **392.08** Medial parietal cortex dysfunction as a biomarker of Alzheimer's disease and small vessel disease. R. S. MILETICH*; D. S. WACK; B. AJTAI; M. HOURIHANE. *Univ. At Buffalo, SUNY, Dent. Neurologic Inst.*

3:00 **392.09** Intermittent energy restriction ameliorates cognitive impairment caused by a presenilin 1 mutation. C. MAHARANA*; H. CELIK; D. CAMERON; K. FISHBEIN; B. WUSTMAN; A. STEVENS; M. P. MATTSON. *Natl. Inst. on Aging, NIH, Natl. Inst. on Aging, NIH, OrPhi Therapeut., Johns Hopkins Univ. Sch. of Med.*

3:15 **392.10** PICALM regulates amyloid-b blood-brain barrier transcytosis and clearance. Z. ZHAO*; Q. MA; A. P. SAGARE; K. KISLER; E. A. WINKLER; A. RAMANATHAN; T. KANEKIYO; G. BU; N. C. OWENS; S. V. REGE; D. ZHU; M. MAEDA; T. MAEDA; B. V. ZLOKOVIC. *USC, Mayo Clin., North Carolina Agr. and Tech. State Univ., Harvard Med. Sch.*

3:30 **392.11** Gap junctions as modulators of synchrony in Parkinson's disease. B. C. SCHWAB*; H. G. E. MEIJER; R. J. A. VAN WEZEL; S. A. VAN GILS. *Univ. of Twente, Radboud Univ.*

3:45 **392.12** Metabolism analysis of young and aged Parkinson's disease-related α-synuclein transgenic mice. X. CHEN*; C. XIE; J. DING; L. SUN; H. CAI. *NIH.*

4:00 **392.13** Effects of high sucrose and high fat diets on memory, cognitive flexibility and gut microbiota. K. R. MAGNUSSON*; V. ELIAS; L. HAUCK; R. NATH; L. E. BERMUDEZ. *Oregon State Univ., Oregon State Univ., Oregon State Univ.*

4:15 **392.14** Metabolism of 13C-labeled glucose and acetate reveals altered neuronal oxidation and glutamate-glutamine cycling in the zQ175 mouse model of Huntington's disease. G. M. I. CHOWDHURY; L. PARK; O. LAVROVA; G. SANACORA; D. ROTHMAN; K. L. BEHAR*. *Yale Univ. Sch. of Med., CHDI Foundation. Inc., Yale Univ. Sch. Med.*

NANOSYMPOSIUM

393. Novel Electrode Technologies

Theme G: Novel Methods and Technology Development

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

1:00 **393.01** Development of a high density and high channel count carbon fiber electrode array using a minimal and stackable silicon support structure. P. R. PATEL*; K. NA; H. ZHANG; T. D. Y. KOZAI; N. A. KOTOV; E. YOON; C. A. CHESTEK. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Pittsburgh.*

1:15 **393.02** ● Improved Utah Electrode Array long-term performance by identification and mitigation of failure modes. R. B. CALDWELL*; R. SHARMA; X. XIE; P. TATHIREDDY; F. SOLZBACHER; L. RIETH. *Univ. of Utah, Univ. of Utah.*

1:30 **393.03** Integrating high resolution light sources onto Michigan implantable neural probes for optogenetic applications. F. WU*; E. STARK; M. IM; I. CHO; E. YOON; G. BUZSA KI; K. D. WISE; E. YOON. *Univ. of Michigan, NYU Neurosci. Inst., Univ. of Michigan, Massachusetts Gen. Hospital, Harvard Med. Sch., Korea Inst. of Sci. and Technol.*

1:45 **393.04** *In vivo* 2 photon histology of novel electrode technologies directs next generation device design. T. D. KOZAI*; A. L. VAZQUEZ; X. CUI. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 **393.05** Precise modulation of *in vivo* neural network activities with focal release of 6,7-dinitroquinoxaline-2,3-dione (DNQX) directly from microelectrodes. Z. DU*; D. J. SIMONS; G. BI; X. T. CUI. *Univ. of Pittsburgh, Ctr. for Neural Basis of Cognition, Univ. of Pittsburgh Sch. of Med., Univ. of Sci. and Technol. of China, Univ. of Sci. and Technol. of China.*

2:15 **393.06** Electrode development and characterization for chronic stimulation. V. TOLOSA*; K. SHAH; K. LEE; A. TOOKER; S. FELIX; S. PANNU. *Lawrence Livermore National Lab.*

2:30 **393.07** ● Next generation, ultra-high density implantable nano-optoelectrical neural interfaces. M. CHAMANZAR*; M. BORISOV; D. J. DENMAN; M. M. MAHARBIZ; T. J. BLANCHE. *Univ. of California Berkeley, E3 Neurotechnology, Allen Inst. for Brain Sci.*

2:45 **393.08** ● Customizable and flexible polymer neural microelectrode array. S. NEGI*; A. HOGAN; S. BUTLER; X. XIE; R. BHANDARI. *Univ. of Utah, Blackrock Microsystems, Univ. of Utah.*

3:00 **393.09** A flexible, low-cost 60-channel µECoG array for use in rodents. M. TRUMPIS; M. INSANALLY; R. C. FROEMKE; J. VIVENTI*. *New York Univ., Polytechnic Inst. of New York Univ.*

3:15 **393.10** Carbon nanotube fiber implantable neural electrodes for chronic recording and stimulation. F. VITALE*; S. R. SUMMERSON; B. AAZANG; C. T. KEMERE; M. PASQUALI. *Rice Univ., Rice Univ., Baylor Col. of Med.*

3:30 **393.11** Chronic spike recordings from a regenerating peripheral nerve in awake and freely moving rats. S. P. LACOUR*; K. MUSICK; J. RIGOSA; M. CAPOGROSSO; S. WURTH; S. MICERA. *EPFL, EPFL.*

3:45 **393.12** Flexible and multimodal fiber probes for chronic optical, electrical and chemical interrogation of brain circuits. U. P. FRORIEP*; A. CANALES; X. JIA; C. LU; R. A. KOPPES; C. TRINGIDES; J. SELVIDGE; Y. FINK; P. ANIKEEVA. *MIT.*

POSTER

394. Postnatal Neurogenesis: Molecular Mechanisms

Theme A: Development

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

1:00 A1 **394.01** Dental stem cells of the apical papilla increase TRPA1 responses in trigeminal neurons. M. ESKANDER*; N. RUPAREL; A. DIOGENES. *UTHSCSA.*

2:00 A2 **394.02** Involvement of pro-survival pathways and epigenetic mechanisms in extremely low-frequency electromagnetic field induced enhancement of adult hippocampal neurogenesis. L. LEONE*; S. FUSCO; M. V. PODDA; S. A. BARBATI; A. MASTRODONATO; D. D. LI PUMA; R. PIACENTINI; S. ZAFFINA; C. GRASSI. *Univ. Cattolica, Med. School, Rome, Italy, Children's Hosp. "Bambino Gesù".*

3:00 A3 **394.03** Wnt receptors Frizzled in neural progenitor cells and immature neurons of the adult hippocampus. L. VARELA-NALLAR*; G. A. ANDAUR; M. D. MARDONES; M. VARAS-GODOY; N. C. INESTROSA. *Univ. Andres Bello, Fundación Ciencia y Vida, Ctr. de Envejecimiento y Regeneración (CARE), Dep. Biologia Celular y Molecular, Fac. Ciencias Biologicas, P. Univ. Catolica de Chile.*

4:00 A4 **394.04** Neuroprotection with antioxidant anthocyanins against ethanol-induced oxidative stress and neurodegeneration via PI3K/Akt/GSK3β pathway. G. YOON*; S. SHAH; M. KIM. *Gyeongsang Natl. Univ.*

1:00 A5 **394.05** The requirement of Bcl-2 in neuronal stem and progenitor cell development in the adult brain. M. CEIZAR*; J. DHALIWAL; M. SMALLWOOD; Y. XI; D. LAGACE. *Univ. of Ottawa.*

2:00 A6 **394.06** Differential oxygen tension in the SGZ niche determines the early survival of newborn hippocampal granule cells. C. CHATZI*; E. SCHNELL; G. WESTBROOK. *OHSU, Vollum Institute, Westbrook Lab., Portland VA Med. Ctr., OHSU.*

3:00 A7 **394.07** MicroRNA expression in the early postnatal hippocampus of the rat differs between the sexes and is regulated by estradiol and DNA methylation. K. E. KIGHT*; J. M. BOWERS; M. M. MCCARTHY. *Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med.*

4:00 A8 **394.08** BMP signaling regulates the tempo of adult hippocampal progenitor maturation at multiple stages of the lineage. A. M. BOND*; C. PENG; E. A. MEYERS; T. MCGUIRE; O. EWALEIFOH; J. A. KESSLER. *Northwestern University's Feinberg Sch. of Med., Northwestern University's Feinberg Sch. of Med.*

1:00 A9 **394.09** Mitochondrial pro-apoptotic proteins are target of cooperative microRNA regulation in early stages of adult hippocampal neurogenesis induction after status epilepticus. M. SCHOUTEN*; S. A. FRATANTONI; C. J. Y. HUBENS; S. R. PIERSMA; T. V. PHAM; E. VREUGDENHIL; P. J. LUCASSEN; C. P. FITZSIMONS. *Univ. of Amsterdam, VUmc-Cancer Ctr., LUMC.*

2:00 A10 **394.10** Chk2 maintains neural stem cell pool in mouse adult hippocampus during aging. K. IBARAKI; M. SAWADA; K. SAWAMOTO; M. MINAMIYAMA; W. MARUYAMA; N. MOTOYAMA*. *Natl. Ctr. Geriatr Gerontol, Nagoya City Univ. Grad Schl Med. Sci.*

3:00 A11 **394.11** Neuroblasts without a neurogenic niche maintain adult neurogenesis on the second stage of the central olfactory pathway in the shore crab, Carcinus maenas. M. SCHMIDT*; C. D. DERBY. *Georgia State Univ.*

4:00 A12 **394.12** Lncrnas in granule cell progenitor differentiation. C. PENAS*; V. STATIAS; J. CLARKE; M. ZHANG; N. AYAD. *Univ. of Miami, Ctr. for Therapeutical Innovation, Dept. of Food Sci. and Technol., Epidemiology, Univ. of Miami.*

1:00 A13 **394.13** The presenilins are not required for cell intrinsic regulation of adult hippocampal neurogenesis. M. VACULIK*; J. DHALIWAL; K. L. KUMAR; A. MAIONE; T. KANNANGARA; J. BÉÏQUE; J. SHEN; D. C. LAGACE. *Univ. of Ottawa, Brigham and Women's Hosp., Harvard Med. Sch.*

2:00 A14 **394.14** Regulation of the process of adult neurogenesis in the adult hippocampal dentate gyrus by Parvalbumin-positive GABAergic neurons. H. MIWA*; N. TAMAMAKI; Y. YANAGAWA. *Gunma Univ., Japan Sci. and Technol. Agency, CREST, Dept Morphological Neural Science, Kumamoto Univ.*

3:00 A15 **394.15** Histone deacetylase 1 is required for doublecortin expression: implication for ethanol inhibition of neurogenesis. J. Y. ZOU*; F. T. CREWS. *Univ. North Carolina, Chapel Hill, Univ. North Carolina, Chapel Hill.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 A16 **394.16** Transcription factors Coup-TFI and Coup-TFII regulate the migration and survival of Pax6-expressing granule cells of the olfactory bulb. Z. XING*; J. LI; Z. XU; Q. LIANG; Z. LIU; Z. YANG. *Inst. of Brain Sci. and State Key Laborato.*

1:00 A17 **394.17** Serotonin 1a receptor in sex-specific neonatal hippocampal development and later-life mood disorders: Possible cooperation with gpr30. P. BANERJEE*; S. SAMADDAR; A. MARSILLO; R. SCHRODER. *City Univ. New York Staten Isla, CUNY Grad. Ctr.*

2:00 A18 **394.18** Cross-talk between beta1-integrin and bone morphogenetic (BMP) signaling in the regulation of adult neurogenesis. S. M. BROOKER*; H. A. NORTH; C. PENG; T. L. MCGUIRE; J. A. KESSLER. *Northwestern Univ. Feinberg Sch. of Med.*

3:00 A19 **394.19** ● Differential expression of hyperpolarization-activated and cyclic nucleotide-gated (HCN) channel isoforms during hippocampal development in the mouse. H. SEO*; M. SEOL; K. LEE. *Kyungbook Natl. Univ. of Med., BK21 Plus KNU Biomed. Convergence Program.*

4:00 A20 **394.20** Atypical PKC-CBP pathway regulates murine adult neurogenesis. J. WANG*; K. HSU; L. HE; F. WONDISFORD; F. MILLER. *Sprott Ctr. For Stem Cell Research, OHRI, Johns Hopkins Med. Sch., Hosp. for Sick Children.*

1:00 A21 **394.21** Neuroligin-1 knockdown reduces survival of adult-generated newborn hippocampal neurons *in vivo.* E. SCHNELL*; T. H. LONG; A. L. BENSEN; E. K. WASHBURN; G. L. WESTBROOK. *Portland VA Med. Ctr., OHSU, OHSU.*

2:00 A22 **394.22** Self-regulation of adult hippocampal stem cells via secreted VEGF. E. D. KIRBY*; A. KUWAHARA; T. WYSS-CORAY. *Stanford Univ.*

3:00 A23 **394.23** GABA bidirectionally controls AP firing in newborn hippocampal granule cells. S. HEIGELE*; J. BISCHOFBERGER. *Univ. of Basel.*

4:00 A24 **394.24** The requirement of autophagy-related gene 5 (atg5) for adult hippocampal neurogenesis. J. DHALIWAL*; Y. XI; M. CEIZAR; M. VACULIK; K. L. KUMAR; M. SNAPYAN; A. SAGHATELYAN; D. C. LAGACE. *Univ. of Ottawa, Univ. of Ottawa, Ctr. de Recherche Inst. Universitaire En Santé Mentale de Québec, Univ. Laval.*

1:00 A25 **394.25** The role of epigenetic repression in a developmental sex difference in hippocampal neurogenesis. S. L. STOCKMAN*; M. M. MCCARTHY. *Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med.*

2:00 A26 **394.26** Brain-specific expression of lysosomal-associated membrane protein 5 (LAMP5) gene. M. KOEBIS*; Y. SAITO; Y. SHINODA; T. FURUICHI. *Tokyo Univ. of Sci., RIKEN Brain Sci. Inst.*

3:00 A27 **394.27** Effects of TRPV1 deficiency on the adult hippocampal neurogenesis. S. WANG*; S. KO; H. JO; H. SON. *Hanyang Univ., Hanyang University, Sch. of medicine.*

4:00 A28 **394.28** Delayed cerebellar development in transgenic mouse expressing a mutant thyroid hormone receptorβ-1 in Purkinje cells. L. YU; T. IWASAKI; N. SHIMOKAWA; N. KOIBUCHI*. *Gunma Univ. Grad. Sch. of Med.*

1:00 A29 **394.29** Novel osmotin attenuates glutamate-induced synaptic dysfunction and neurodegeneration via the JNK/PI3K/Akt pathway in postnatal rat brain. G. YOON; S. SHAH; M. KIM*. *Dept. of Biol.*

2:00 A30 **394.30** Corticogenesis of the cerebellar cortex in lysosomal acid phosphatase (Acp2) mutant mice. H. MARZBAN*; K. BAILEY; M. RAHIMI BALAEI; A. U.MANNAN; S. GHAVAMI. *Univ. of Manitoba, Inst. of Human Genetics, Univ. Med. Ctr. Goettingen, Univ. of Manitoba.*

POSTER

395. Postnatal Neurogenesis: Environmental and Pharmacological Regulation

Theme A: Development

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

1:00 A31 **395.01** Differences in gender response at the hippocampal neurogenesis following nociceptive stimulus and fentanyl in newborn rats. A. T. LESLIE*; D. S. BANDEIRA; C. SILVA; D. S. ENGELKE; R. GUINSBURG; L. E. A. MELLO. *Univ. Federal de Sao Paulo, Univ. Federal de Sao Paulo.*

2:00 A32 **395.02** High aerobic capacity is necessary and sufficient for the beneficial effects of exercise on hippocampal neurogenesis and cognition. C. M. TOGNONI*; J. M. SAIKIA; J. DU; K. M. ANDREJKO; E. A. BABB; R. M. PEACE; L. G. KOCH; S. L. BRITTON; L. W. JONES; C. L. WILLIAMS. *Duke Univ., Univ. of North Carolina at Chapel Hill, Duke Univ. Med. Ctr., Univ. of Michigan, Mem. Sloan-Kettering Cancer Ctr.*

3:00 A33 **395.03** Patterns of olfactory bulb cell genesis are altered with long-term, partial deafferentation in adult zebrafish. D. M. TRIMPE; C. A. BYRD*. *Western Michigan Univ.*

4:00 A34 **395.04** ● Gluten and casein-derived opiate peptides alter redox status and produce epigenetic-based differences in gene expression. N. HODGSON*; M. TRIVEDI; R. DETH; A. CLARKE. *Northeastern Univ., A2 Corp. Ltd.*

1:00 A35 **395.05** Identification of the metabolic fuel requirements of adult neural stem cells. E. STOLL*; R. MAKIN; I. R. SWEET; A. TREVELYAN; S. MIWA; P. J. HORNER; D. M. TURNBULL. *Newcastle Univ., Newcastle Univ., Univ. of Washington, Newcastle Univ., Newcastle Univ., Univ. of Washington.*

2:00 A36 **395.06** Effects of intranasal epidermal growth factor treatment on the subventricular zone after chronic perinatal hypoxia. J. SCAFIDI*; J. EDWARDS; J. KURZ; V. GALLO. *Children's Natl. Med. Ctr., Children's Natl. Med. Ctr., Children's Natl. Med. Ctr.*

3:00 A37 **395.07** ▲ Physical exercise prevents suppression of hippocampal neurogenesis and mitigates cognitive impairment in chemotherapy-treated rats. J. HUANG*; G. WINOCUR; J. M. WOJTOWICZ. *Univ. of Toronto, Baycrest Inst.*

4:00 A38 **395.08** Why social interaction can facilitate adult neurogenesis. A. M. DIOS; M. CHENG*. *Rutgers Univ.*

1:00 A39 **395.09** Long-term effects of early exercise on adult hippocampal neurogenesis in aging rats. C. M. MERKLEY*; C. JIAN; A. MOSA; Y. TAN; J. WOJTOWICZ. *Univ. of Toronto.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 A40 **395.10** Reduction of adult hippocampal neurogenesis via cranial irradiation enhances morphine self-administration and morphine-induced locomotor sensitization. S. E. BULIN*; D. R. RICHARDSON; K. H. SONG; T. D. SOLBERG; A. J. EISCH. *Univ. of Texas Southwestern Med. Ctr., Univ. of Texas Southwestern Med. Ctr.*

3:00 A41 **395.11** ▲ Fructose impairs neuronal differentiation of adult neural stem cells *in vitro.* J. A. LEONARD; A. L. RAMIREZ GARCIA; N. SPITZER*. *Marshall Univ., Marshall Univ.*

4:00 A42 **395.12** Interferon-α inhibits neurogenesis and induces depression-like behavioral phenotype via interferon receptors expressed in the mouse brain. N. KANEKO*; L. ZHENG; S. HITOSHI; K. TAKAO; T. MIYAKAWA; Y. TANAKA; U. KALINKE; K. KUDO; S. KANBA; K. IKENAKA; K. SAWAMOTO. *Nagoya City Univ. Grad. Sch. of Med. Sci., Zhejiang Univ., Shiga Univ. of Med. Sci., Natl. Inst. for Physiological Sci., Core Res. for Evolutionary Sci. and Technol. (CREST), Inst. for Comprehensive Med. Science, Fujita Hlth. Univ., Nagoya City Univ. Grad. Sch. of Med. Sci., Inst. for Exptl. Infection Research, TWINCORE, Yokohama Clin., Kyushu Univ.*

1:00 A43 **395.13** Exercise modifies the neuronal network of newborn dentate granule cells. C. VIVAR*; B. D. PETERSON; H. VAN PRAAG. *NIH/ Natl. Inst. On Aging.*

2:00 A44 **395.14** The influence of acetylcholine within the neurogenic niche of the spinal cord. S. A. DEUCHARS*; L. F. CORNS; L. ATKINSON; J. DANIEL; I. J. EDWARDS; J. DEUCHARS. *Univ. of Leeds.*

3:00 A45 **395.15** Environmental enrichment effects on adult hippocampal neurogenesis in mice: Dorsal vs. ventral dentate gyrus. F. GUALTIERI*; T. BOSWELL; T. V. SMULDERS. *Newcastle Univ., Newcastle Univ.*

4:00 A46 **395.16** The role of tenascin C in neuronal plasticity and adult neurogenesis in the hippocampus induced by enriched environment. V. STAMENKOVIC*; S. STAMENKOVIC; T. JAWORSKI; M. GAWLAK; I. JAKOVCEVSKI; G. M. WILCZYNSKI; L. KACZMAREK; M. SCHACHNER; L. RADENOVIC; P. R. ANDJUS. *Fac. of Biology, Univ. of Belgrade, Inst. for Physiol. and Biochemistry, Fac. of Biology, Univ. of Belgrade, Nencki Inst. of Exptl. Biol., Zentrum für Molekulare Neurobiologie, Univ. Hamburg.*

1:00 A47 **395.17** Silver nanoparticles interfere with differentiation of adult neural stem cells in culture. R. J. COOPER*; N. SPITZER. *Marshall Univ.*

2:00 A48 **395.18** Doublecortin in the cerebrospinal fluid after hypoxic-ischemic brain injury in the rat neonate is a biomarker of neurogenesis. C. BREGERE; U. FISCH; S. LIEB; L. CHICHA; P. BUSTOS; F. GOEPFERT; T. KREMER; R. GUZMAN*. *Univ. of Basel, F. Hoffman-La Roche AG.*

3:00 A49 **395.19** *In utero lead (Pb) exposure and neuron-specific DNA methylation changes in mice.* Z. FAROOQUI*; K. M. BAKULSKI; C. FAULK; A. BARKS; D. C. DOLINOY. *Univ. of Michigan, Johns Hopkins Univ., Univ. of Minnesota.*

4:00 A50 **395.20** Effect of housing environment on adult neurogenesis in turtles (Chrysemys picta). A. S. POWERS*; B. HANUSCH; A. AYUNRU; K. HANINGTON; J. GOMEREZ; F. KERIN; E. LEWIS. *SUNY Stony Brook, St. John's Univ.*

1:00 A51 **395.21** Abnormal cerebellar synaptic organization induced by postnatal secondhand smoke exposure. P. P. MULDOON*; J. STAFFLINGER; A. OTTENS. *Virginia Commonwealth Univ.*

2:00 A52 **395.22** Alterations in tryptophan metabolism following maternal intrauterine inflammation. M. A. WILLIAMS*; L. WOICHIECH; Z. ZHANG; K. RANGARAMANUJAM; S. KANNAN. *Johns Hopkins Univ.*

POSTER

396. Postnatal Neurogenesis: Temporal and Spatial Patterns

Theme A: Development

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

1:00 A53 **396.01** Adult guinea pig ventricular neurogenesis and precursor cell migration. N. A. JARA*; M. CIFUENTES; F. MARTÍNEZ; K. SALAZAR; F. NUALART*. *Univ. De Concepcion, Univ. de Málaga.*

2:00 A54 **396.02** Hippocampal neurogenesis in short- and long-lived rodents. D. E. PERAGINE; Y. YOUSUF; M. M. HOLMES*, PhD. *Univ. of Toronto Mississauga, Univ. of Toronto Mississauga.*

3:00 A55 **396.03** Adult neurogenesis in the olfactory bulb and hippocampus of the homing pigeon: A stereological lifetime study. V. MESKENAITE; H. LIPP*. *Univ. of Zurich, Univ. Zurich, Kwazulu-Natal Univ.*

4:00 A56 **396.04** Protracted postnatal development of neuronal circuits in the hippocampus of naked mole rats. E. KEIMPEMA*; O. K. PENZ; J. FUZIK; R. ROMANOV; J. LARSON; T. J. PARK; T. HARKANY. *Karolinska Institutet, Med. Univ. of Vienna, Univ. of Illinois at Chicago.*

1:00 A57 **396.05** Multicolor *in vivo* single cell tracking reveals the dynamic behavior of olfactory adult-born neurons during the pre-integration phase. Y. LIANG; K. RIECKEN; A. MASLYUKOV; D. GOMEZ-NICOLA; Y. KOVALCHUK; H. PERRY; B. FEHSE; O. GARASCHUK*. *Univ. of Tübingen, Univ. Med. Ctr. Hamburg-Eppendorf, Univ. of Southampton.*

2:00 A58 **396.06** Nestin expression and the proliferative potential of tanycytes and ependymal cells lining the walls of the 3rd ventricle in the adult rat brain. R. E. KALIL*; I. ZUTSHI; C. HASKEN; M. HENDRICKSON. *Univ. of Wisconsin-Madison, Univ. of California San Diego, DePauw Univ.*

3:00 A59 **396.07** ● Serotonergic (5-HT) stimulation of enteric neurogenesis: identification of target neuronal phenotypes and 5-HT4 mediation. M. D. GERSHON*; A. CHALAZONITIS; M. LIU; Z. LI. *Columbia Univ. P & S.*

4:00 A60 **396.08** Alternative splicing and DNA methylation in the developing human brain. P. T. MANSER*; M. REIMERS. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

1:00 A61 **396.09** Immunohistochemical detection of cyclin E in postmitotic neurons of the mouse adult hippocampal dentate gyrus. Y. IKEDA*; M. IKEDA. *Aichi-Gakuin Univ. Sch. of Dent., Grad. School, Tokyo Med. and Dent. Univ.*

2:00 A62 **396.10** Analysis of mechanism underlying brain growth accompanied by neurogenesis using medaka fish (Oryzias latipes). Y. ISOE*; T. OKUYAMA; M. HOKI; Y. SUEHIRO; G. YAMAGISHI; G. YAMAGISHI; K. NARUSE; M. KINOSHITA; Y. KAMEI; A. SHIMIZU; T. KUBO; H. TAKEUCHI. *The Univ. of Tokyo, The Univ. of Tokyo, Natl. Inst. of Basic Biol., Kyoto Univ., Keio Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 A63 **396.11** Long-term hydrocephalus modifies the cytoarchitecture of the adult ventricular-subventricular zone. O. GONZALEZ-PEREZ*; T. CAMPOS-ORDONEZ; V. HERRANZ-PEREZ; K. CHAICHANA; D. ZARATE-LOPEZ; V. LOPEZ-VIRGEN; F. ADIRSCH; J. GUZMAN-MUNIZ; N. MOY-LOPEZ; J. M. GARCIA-VERDUGO; A. QUINONES-HINOJOSA. *Psicologia/University of Colima, Univ. of Colima, Univ. of Valencia, Johns Hopkins Univ.*

4:00 A64 **396.12** Age-related changes of neurite density and fiber orientation dispersion in white matter during childhood brain maturation. J. P. OWEN*; Y. CHANG; T. THIEU; N. POJMANN; P. BUKSHPUN; E. SHERR; P. MUKHERJEE. *UCSF.*

1:00 A65 **396.13** Ectopic granule cells in the dentate gyrus of normal mice: Dependence on age, septotemporal location, and survival of hilar progenitors. K. BERMUDEZ-HERNANDEZ*; J. J. LAFRANCOIS; J. MORETTO; H. E. SCHARFMAN. *The Nathan Kline Inst., New York Univ. Sch. of Med.*

2:00 A66 **396.14** Human and monkey striatal interneurons are derived from the medial ganglionic eminence but not from the adult subventricular zone. D. QI; Z. LIU*; C. WANG; Y. YOU; X. ZHOU; S. WEI; Z. ZHANG; W. HUANG; F. LIU; Z. YANG. *Fudan Univ.*

3:00 A67 **396.15** Human and monkey striatal interneurons are derived from the medial ganglionic eminence but not from the adult subventricular zone. D. QI*; Z. LIU; C. WANG; Y. YOU; X. ZHOU; S. WEI; Z. ZHANG; W. HUANG; F. LIU; Z. YANG. *Fudan Univ., Xuzhou Med. Col., Affiliated Hosp. of Hebei Univ. of Engin.*

4:00 A68 **396.16** The fine structure of adult neural stem cells in the hippocampal neurogenic niche. J. MOSS*; E. BUSHONG; M. H. ELLISMAN; N. TONI. *Univ. of Lausanne, Univ. of California.*

1:00 B1 **396.17** Survival and maturation of the developmentally-born cell population in the rat dentate gyrus. S. P. CAHILL*; R. Q. YU; J. S. SNYDER. *Univ. of British of Columbia.*

2:00 B2 **396.18** Calorie restriction prevents age-related decreases in neurogenesis and preserves the neural stem cell niche. D. M. APPLE*; R. S. FONSECA; C. ZHU; S. MAHESULA; E. KOKOVAY. *Univ. of Texas Hlth. Sci. Ctr. San Antonio.*

3:00 B3 **396.19** Inflammation in the aging neural stem cell niche. R. SOLANO FONSECA*; R. RAGHUNATHAN; A. DUGAN; E. KOKOVAY. *Univ. of Texas Hlth. Sci. Ctr. At San A, Boston Univ.*

POSTER

397. Neural Differentiation of Pluripotent Stem Cells

Theme A: Development

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

1:00 B4 **397.01** Rapid generation of sub-type specific neurons and neural network from human pluripotent stem cells derived neurosphere. A. N. BEGUM*; Y. HONG. *Western Univ. of Hlth. Sci., Western Univ. of Hlth. Sci.*

2:00 B5 **397.02** 17q21.31/WNT3-WNT9b CNVs accelerates dopaminergic neuron differentiation from hPSCs. C. LEE*; A. A. KINDBERG; R. M. BENDRIEM; L. T. WORDEN; M. P. WILLIAMS; T. DRGON; B. S. MALLON; B. K. HARVEY; C. T. RICHIE; R. S. HAMILTON; G. R. UHL; W. J. FREED. *IRP, NIDA, NIH, DHHS.*

3:00 B6 **397.03** Differentiation of astrocyte with human embryonic stem cells. B. HAN*; C. LEE; S. KIM; S. LEE. *Korea Res. Institue of Biosci. and Biotech., Korea Res. Inst. of Biosci. and Biotech.*

4:00 B7 **397.04** Using human embryonic stem cells to understand *in vitro* cortical excitatory neurogenesis and lineage. S. KU*; J. CLOSE; B. GREGOR; J. GRIMLEY; A. JAYABALU; A. KROSTAG; B. LEVI; R. MARTINEZ; R. MAY; V. MENON; H. MULHOLLAND; A. NELSON; K. NGO; N. SHAPOVALOVA; M. SMITH; C. THOMPSON; E. THOMSEN; A. WALL; Y. WANG. *Allen Inst. For Brain Sci.*

1:00 B8 **397.05** Authentic midbrain dopamine differentiation of pluripotent stem cells requires the coordinated regulation of En2, Foxa2 and Lmx1a expression. J. CAI*; E. W. KOSTUK; L. M. IACOVITTI. *Thomas Jefferson Univ.*

2:00 B9 **397.06** Involvement of heterogeneous activation of Heat Shock Factor 1 in the formation of focal cortical dysplasia elicited by prenatal environmental challenges. S. ISHII*; M. RAJENDRAPRASAD; A. SON; Y. MOROZOV; A. NAKAI; V. MEZGER; P. RAKIC; M. TORII; K. HASHIMOTO-TORII. *Children's Natl. Med. Ctr., Yale Univ. Sch. of Med., Yamaguchi Univ. Sch. of Med., CNRS, Univ. Paris Diderot, USC.*

3:00 B10 **397.07** Expression of 5-HT receptors in human blastocysts and ESCs. A. SAMARA*; S. STRÖM; L. ANTONSSON; R. LAMPELA; J. KIEHN; J. C. GLOVER. *Univ. of Oslo, Norwegian Ctr. for Stem Cell Res., Karolinska Intitutet, Univ. of Lübeck, Sars Intl. Ctr. for Marine Mol. Biol.*

4:00 B11 **397.08** ● Development and characterization of scalable human induced pluripotent stem cell-derived midbrain dopaminergic neurons for drug discovery and disease modeling. L. CHASE*; C. MCMAHON; J. MA; J. GRINAGER; N. MEYER; C. CHAVEZ; B. MELINE; J. LIU; C. CARLSON; K. MANGAN; W. WANG; B. SWANSON. *Cell. Dynamics International, Inc.*

1:00 B12 **397.09** Genome-engineering human induced pluripotent stem cell derived 3D retinas to model photoreceptor development and disease. K. WAHLIN*; J. MARUOTTI; V. RANGANATHAN; C. KIM; V. SLUCH; S. SRIPATHI; C. BERLINICKE; D. J. ZACK. *Johns Hopkins - Wilmer Eye Inst., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

2:00 B13 **397.10** Optogenetics reveal delayed afferent synaptogenesis on grafted human induced pluripotent stem cell-derived neural progenitors. N. AVALIANI*; A. T. SORENSEN; M. LEDRI; J. BENGZON; P. KOCH; O. BRUSTLE; K. DEISSEROTH; M. ANDERSSON; M. KOKAIA. *Lund Univ., Bonn Univ. and Hertie Fndn., Stanford Univ.*

3:00 B14 **397.11** Somatic cell lines with targeted eGFP insertion into mouse Tph2 locus as a model for serotonergic transdifferentiation. N. ALENINA*; V. FISHMAN; S. MIGLIARINI; B. PELOSI; A. RANJAN; O. SEROV; M. BADER; M. PASQUALETTI. *MDC, Inst. of Cytology and Genet., Univ. of Pisa.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 B15 **397.12** Directed differentiation of human induced pluripotent stem cells to sensory neurons by combined small molecule inhibitors. S. CAI*; Y. S. CHAN; D. K. Y. SHUM. *The Univ. of Hong Kong, The Univ. of Hong Kong.*

1:00 B16 **397.13** Differentiation of retinal ganglion cells and photoreceptor precursors from mouse iPS cells carrying a Math5/Atoh7 lineage reporter. X. YANG*; B. XIE; X. ZHANG; T. HASHIMOTO; A. TIEN; A. CHEN; J. GE. *UCLA, Jules Stein Eye Inst., Sun Yat-Sen Univ.*

2:00 B17 **397.14** Activation of trans-synaptic signaling and network formation in human stem cell-derived neurons. K. HUBBARD*; P. BESKE; E. GLOTFELTY; T. HAMILTON; P. MCNUTT. *USAMRICD.*

3:00 B18 **397.15** Axonal polarity formation in human iPSCs-derived neurons. N. KOGANEZAWA*; Y. OHARA; H. YAMAZAKI; R. T. ROPPONGI; K. SATO; Y. SEKINO; T. SHIRAO. *Gunma Univ. Grad. Sch. of Med., Natl. Inst. of Hlth. Sci.*

4:00 B19 **397.16** MicroRNA profiling during human brain development. M. E. JONSSON*; J. NELANDER; M. ÅKERBLOM; A. KIRKEBY; M. PARMAR; J. JAKOBSSON. *Lund University, Mol. Neurogenetics, Lund University, Developmental and Regenerative Neurobio.*

1:00 B20 **397.17** The generation of subgroups of GABAergic interneurons in 3D alginate hydrogel. J. KIM*; S. ANDERSON. *The Children's Hosp. of Philadelphia, Univ. of Pennsylvania.*

2:00 B21 **397.18** ▲ Direct differentiation of human pluripotent stem cells into cerebellar Purkinje cells. K. IMAIZUMI*; T. SONE; W. AKAMATSU; H. OKANO. *Dept. of Physiology, Keio Univ.*

3:00 B22 **397.19** ● Assessing functional phenotypic complexity of stem cell-derived neuronal culture network activity in relation to brain region-specific primary cultures. A. GRAMOWSKI*; K. JÜGELT; C. EHNERT; A. PIELKA; A. PODßUN; B. M. BADER; O. SCHROEDER. *NeuroProof GmbH.*

4:00 B23 **397.20** ● Neurofluor™ Cdr3: A fluorescent probe for the detection of live CNS and human pluripotent stem cell derived neural progenitor cells. V. M. LEE*; C. K. H. MAK; S. LLOYD-BURTON; A. C. EAVES; T. E. THOMAS; S. A. LOUIS. *STEMCELL Technologies Inc.*

1:00 B24 **397.21** The role of miRNAs in the developmental timing of embryonic stem cell-derived retina. A. HOSHINO*; A. LA TORRE; L. E. HOOD; T. A. REH. *Univ. of Washington.*

2:00 B25 **397.22** Derivation, differentiation and characterization of human and mouse embryonic stem cell derived gabaergic interneuron progenitors. N. C. ANDERSON*; C. Y. CHEN; D. F. MOAKLEY; K. HENDERSON; A. PLOCIK; B. GRAVELEY; J. NAEGELE; L. GRABEL. *Wesleyan Univ., Wesleyan Univ., Univ. of Connecticut Hlth. Ctr.*

3:00 B26 **397.23** Differentiation of human stem cells to retinal ganglion-like cells using a crispr/cas9 engineered reporter line. V. M. SLUCH*; V. RANGANATHAN; C. BERLINICKE; R. MARTIN; H. MAO; D. ZACK. *Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med., Johns Hopkins Univ.*

4:00 B27 **397.24** A modeling approach to investigate the emergent behavior of motor neurons and glia from 3D stem cell aggregates. R. L. SWETENBURG*, III; D. E. WHITE; M. L. KEMP; T. C. MCDEVITT; S. L. STICE. *Univ. of Georgia, Georgia Inst. of Technol.*

1:00 B28 **397.25** ● Metabolomics and neurite outgrowth as data rich developmental neurotoxicity assays in a pluripotent stem cell derived human neural model. A. MAJUMDER*; S. WALLACE; X. WU; M. AMOSU; K. LU; M. A. SMITH; S. L. STICE. *Aruna Biomed. Inc., Univ. of Georga, Univ. of Georgia.*

2:00 B29 **397.26** Involvement of cannabinoid receptors or muscarinic acetylcholine receptors on differentiation into neural progenitor cells in mouse induced pluripotent stem cells. T. ISHIZUKA*; A. OZAWA; M. ARATA; Y. WATANABE. *Natl. Def. Med. Col., Natl. Def. Med. Col.*

3:00 B30 **397.27** Differential expression of human endogenous retrovirus-k env in pluripotent stem cells and neural cells. T. WANG*; M. MEDYNETS; E. CHOI; W. LI; A. NATH. *NINDS/NIH.*

4:00 B31 **397.28** Neural precursors derived from mouse ips cells extensively remyelinate the demyelinated central nervous system. S. MOZAFARI; C. LATERZA; A. MARTEYN; C. DEBOUX; C. BACHELIN; G. MARTINO; A. S. BARON VAN EVERCOOREN*. *ICM, INSERM U1127, CNRS UMR 7225, UPMC UM 75, Inst. of Exptl. Neurology–DIBIT 2, Div. of Neuroscience, San Raffaele Scientific Inst.*

1:00 B32 **397.29** Synaptic function of chromosome 21-encoded microRNAs. H. MCGOWAN*; N. MLYNARYK; C. LU; Z. PANG. *Child Hlth. Inst. of New Jersey, Rutgers Univ., Child Hlth. Inst. of New Jersey.*

2:00 B33 **397.30** Transcriptional signatures of lineage bias and human genomic identity in the pluripotent state. C. COLANTUONI*; A. JAISHANKAR; G. STEIN-O'BRIEN; E. FERTIG; J. SHIN; S. KIM; S. SEO; Y. WANG; D. HOEPPNER; J. CHENOWETH; R. MCKAY. *Lieber Inst. For Brain Develop., Johns Hopkins Univ.*

POSTER

398. Activity-Dependent Changes in Connectivity

Theme A: Development

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

1:00 B34 **398.01** Classical MHCI immune proteins promote synapse elimination at the developing neuromuscular junction. M. M. TETRUASHVILY; M. A. MCDONALD; L. M. BOULANGER*. *Princeton Univ., U.C. San Diego, Princeton Univ.*

2:00 B35 **398.02** Low omega-3/DHA containing diets delays axonal elimination and the differentiation of cholinergic markers in the rodent visual system. C. A. SERFATY*; P. C. DE VELASCO; P. C. SANDRE; P. A. RUNG; R. M. DOS SANTOS; P. C. C. LOPES; A. C. F. MELIBEU; A. S. FRANCO; R. C. A. GUEDES; B. A. DA COSTA. *Federal Fluminense University, Inst. De Biologia, Dept. Neurobiologia, Univ. Federal do Rio de Janeiro, Univ. Federal Fluminense, Univ. Federal Fluminense, Univ. Federal de Pernambuco.*

3:00 B36 **398.03** Accelerated gsk-3β activity in prefrontal cortex enhances ltd in a neurodevelopmental schizophrenia model. B. XING*; W. GAO. *Drexel Univ. Col. of Med.*

4:00 B37 **398.04** Functional synapse elimination plays a role in large-scale somatotopic refinement in the sensory thalamus of developing mice. Y. TAKEUCHI*; Y. KATAYAMA; M. MIYATA. *Tokyo Women's Med. Univ., PRESTO, Japan Sci. and Technol. Agency.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 B38 **398.05** ● Systematic analysis of the wiring process indicates a vital role for homeostatic control of dendritic excitability. P. A. RHODES*. *Evolved Machines.*

2:00 B39 **398.06** ● Formation of rich clubs in neuronal functional networks *in vitro.* M. S. SCHROETER*; P. CHARLESWORTH; M. KITZBICHLER; O. PAULSEN; E. BULLMORE. *Behavioral and Clin. Neurosci. Instiute, Dept. of Physiology, Develop. and Neurosci.*

3:00 B40 **398.07** Detecting pairwise correlations in spike trains: an objective comparison of methods and application to study of retinal waves. C. CUTTS*; S. J. EGLEN. *Univ. of Cambridge.*

4:00 B41 **398.08** Prenatal serotonin levels can affect the development of the prefrontal control of the dorsal raphe nucleus. S. E. GROSS; A. CHEN; V. F. LU; M. B. GREENBERG; S. JANUSONIS*. *Univ. of California, Santa Barbara.*

1:00 B42 **398.09** Role of cyclic AMP signaling in synaptic refinement at the *Drosophila NMJ.* F. VONHOFF; H. S. KESHISHIAN*. *Yale Univ.*

2:00 B43 **398.10** A role of calcium influx through GluN2B receptors in the critical period plasticity for corticospinal synapse elimination. T. OHNO*; N. ISOO; M. ISOWAKI; S. FUKUDA; M. MISHINA; M. SAKURAI. *Teikyo Univ. Sch. Med., Grad Sch. Med, Univ. Tokyo.*

3:00 B44 **398.11** Defining the role of neurotrophins in the neonatal hippocampus. A. JALLOH; B. J. CATLOW*; D. A. PAREDES; L. GRAND; J. CHUNG; T. Y. N. NG; R. D. MCKAY. *Lieber Inst. For Brain Develop., The Johns Hopkins Univ.*

4:00 B45 **398.12** Neuromodulatory state-dependent plasticity in striatal development. Y. KOZOROVITSKIY*; R. PEIXOTO; B. SABATINI. *Harvard Med. School/HHMI.*

1:00 B46 **398.13** Cell-autonomous function of connexin 36 in dendritic refinement of barrel cells during postnatal development. W. LUO*; H. MIZUNO; S. ITOHARA; T. IWASATO. *Natl. Inst. of Genet., Grad. Univ. for Advanced Studies (SOKENDAI), RIKEN Brain Sci. Inst. (RIKEN BSI).*

2:00 B47 **398.14** ● Topographic map plasticity by a Spatial-Temporal-Spatial transformation of sensory input. M. HIRAMOTO*; H. CLINE. *The Scripps Res. Inst., The Scripps Reserach Inst.*

3:00 B48 **398.15** Role of Sema7A in maturation of sensory cortical circuits. N. KEZUNOVIC*; I. CARCEA; T. AHMED; R. MESIAS; P. BURMAN; H. MORISHITA; J. D. BUXBAUM; G. W. HUNTLEY. *Icahn Sch. of Med. at Mount Sinai.*

4:00 B49 **398.16** An optogenetic screen for temporal spike patterns reveals an instructive role for neuronal activity in plasticity at the axon initial segment. M. D. EVANS; A. S. LOWE; M. S. GRUBB*. *MRC Ctr. Dev. Neurobiol.*

1:00 B50 **398.17** Early chronic loud noise exposure alters the metabolic profile and expression of synaptic proteins in the developing chick auditory cortex analogue. V. KUMAR*; T. C. NAG; U. SHARMA; P. KUMAR; N. R. JAGANNATHAN; S. WADHWA. *All India Institute Of Medical Sciences, All India Institute Of Medical Sciences.*

2:00 B51 **398.18** Early-life febrile seizures induce a precocious expression of KCC2 and impairment of excitatory synapse formation. P. N. AWAD*; B. CHATTOPADHYAYA; N. SANON; J. SZCZURKOWSKA; E. BAHO; J. NUNES CARRIÇO; S. DESGENT; L. CANCEDDA; L. CARMANT; G. DI CRISTO. *CHU Sainte Justine Res. Ctr., Univ. de Montréal, Inst. Italiano di Tecnologia.*

3:00 B52 **398.19** The role of Tsc1 in the development of cortical GABAergic connectivity. M. CHOUDHURY*; J. N. CARRIÇO; M. BERRYER; G. DI CRISTO. *CHU-Sainte-Justine Res. Ctr., Univ. of Montreal.*

4:00 B53 **398.20** Role of SYNGAP1 in GABAergic synapse development. M. H. BERRYER*; B. CHATTOPADHYAYA; J. ANTOINE-BERTRAND; N. LAMARCHE-VANE; F. HAMDAN; G. DI CRISTO; J. MICHAUD. *CHU Sainte-Justine, CHU Sainte-Justine Hosp. Res. Ctr., McGill Univ., Sainte-Justine Hosp. Res. Ctr.*

1:00 B54 **398.21** Dynamic changes in the connectivity of MGE-derived cortical interneurons during postnatal development. S. N. TUNCDEMIR*; F. J. STAM; F. OSAKADA; M. GOULDING; E. CALLAWAY; G. FISHELL. *New York Univ., Salk Inst. for Biol. Sci.*

2:00 B55 **398.22** Interplay between GABAergic local circuitry and DISC1 in regulating synaptic integration of newborn neuron in adult hippocampus. E. KANG; J. SONG; Y. GU; S. GE; K. M. CHRISTIAN; B. BERNINGER; H. SONG; G. MING*. *Johns Hopkins Univ., Univ. of North Carolina Sch. of Med., SUNY at Stony Brook, Johns Hopkins Univ. Sch. of Med., Univ. Med. Ctr. of the Johannes Gutenberg Univ.*

3:00 B56 **398.23** ● Postnatal development of parvalbumin-positive GABA neurons in mouse prefrontal cortex. G. GONZALEZ-BURGOS*; T. MIYAMAE; T. TIKHONOVA; D. A. LEWIS. *Univ. of Pittsburgh.*

4:00 B57 **398.24** Activity-dependent cortical interneuron circuit formation. T. KARAYANNIS*; R. PRIYA; S. TUNCDEMIR; G. J. FISHELL; N. V. DE MARCO GARCIA. *NYU Neurosci. Inst. and Smilow Neurosci.*

1:00 B58 **398.25** Excitatory input to cortical GABAergic interneurons during development. R. DENG*; P. O. KANOLD. *Univ. of Maryland, Univ. of Maryland.*

2:00 B59 **398.26** Enrichment of PSD-MAGUKs in nascent dendritic spines. J. T. LAMBERT*; T. C. HILL; K. ZITO. *Univ. of California, Davis.*

3:00 B60 **398.27** ▲ Experience-dependent axon targeting and guidance molecule expression in mouse olfactory system. N. N. GONG*; H. MATSUNAMI. *Duke Univ., Duke Univ.*

4:00 C1 **398.28** Differential requirement of presynaptic release for eye-specific and topographic retinal maps. A. REBSAM*; A. ASSALI; M. BENNIS; P. KAESER; T. C. SÜDHOF; P. GASPAR. *INSERM U839, Inst. du Fer à Moulin, Cadi Ayyad Univ., Harvard Med. Sch., Howard Hughes Med. Institute, Stanford Univ.*

1:00 C2 **398.29** Activity-dependent regulation of liprinα1 during synapse development. H. HUANG*; K. LAI; A. FU; N. IP*. *Div. of Life Science,HKUST, Mol. Neurosci. Center, HKUST, State Key Lab. of Mol. Neuroscience, HKUST.*

2:00 C3 **398.30** Expression analysis of genes encoding transcription factors, mbo-1, 2, 3 in oryzias latipes, medaka. R. WATANABE*; S. YOKOI; Y. ISOE; S. ANZAI; M. KINOSHITA; A. UGAJIN; T. OKUYAMA; T. KUBO; H. TAKEUCHI. *Univ. of Tokyo, Kyoto Univ., Tamagawa Acad.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

399. Intrinsic Mechanisms of CNS Regeneration

Theme A: Development

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

1:00 C4 **399.01** Injury-induced decline of intrinsic regenerative ability revealed by quantitative proteomics. S. BELIN*; H. NAWABI; C. WANG; P. WARREN; H. SCHORLE; C. UNCU; Z. HE; J. STEEN. *Boston Childrens Hosp., Boston Childrens Hosp., Univ. of Bonn Med. Sch.*

2:00 C5 **399.02** Musashi 1 expression in regenerating axolotl retina. E. A. DEBSKI*; J. MAYNOR; M. SINDALL. *Univ. of Kentucky.*

3:00 C6 **399.03** Rubrofugal projections: Novel mediators of spontaneous recovery after spinal cord injury. C. S. SIEGEL*; S. M. STRITTMATTER; W. B. CAFFERTY. *Yale Univ.*

4:00 C7 **399.04** Identification of novel modulators of intrinsic CNS axon growth. K. FINK*; S. STRITTMATTER; W. CAFFERTY. *Yale Univ.*

1:00 C8 **399.05** Targeting non-muscle myosin II to promote axon regeneration after optic nerve injury. X. SAIJILAFU*; Y. JIAN; Y. GUO; C. LIU; J. JIANG; M. ZHANG; F. ZHOU. *Johns Hopkins Med. Sch., Johns Hopkins Univ. Sch. of Med.*

2:00 C9 **399.06** Inhibition of BMP and sFRP2 proteins in the adult mouse eye induces proliferation and expands the retinal stem cell population. K. N. GRISE*; L. BALENCI; D. VAN DER KOOY. *Univ. of Toronto.*

3:00 C10 **399.07** DCLKs: New regulators of growth cone regeneration. H. NAWABI*; S. BELIN; R. CARTONI; C. WANG; A. LATREMOLIERE; X. WANG; C. WOOLF; C. V. GABEL; J. STEEN; Z. HE. *Boston Childrens Hospital Harvard Medical School, Boston Univ. Sch. of Med.*

4:00 C11 **399.08** ▲ Translational profiling of retinal ganglion cells in response to optic nerve injury in post-metamorphic Xenopus laevis. D. HEINEN; D. RHOADES; A. H. WATSON; B. MISAGHI; C. IVES; N. MARSH-ARMSTRONG; F. L. WATSON*. *Washington & Lee Univ., Johns Hopkins Univ. and Hugo Moser Res. Inst. at Kennedy Krieger, Baltimore, MD.*

1:00 C12 **399.09** The krüppel-like factor gene targeting dusp14 regulates axon growth and regeneration. Y. WANG*; K. IWAO; A. APARA; D. L. MOORE; M. BLACKMORE; N. J. KUNZEVITZKY; J. L. GOLDBERG. *Shiley Eye Center, UCSD, Bascom Palmer Eye Inst., Marquette Univ.*

2:00 C13 **399.10** Regeneration of serotonin axons in the neocortex of the adult mouse probed with *in vivo* two-photon imaging. Y. JIN; D. J. LINDEN*. *Johns Hopkins Univ. Sch. Med.*

3:00 C14 **399.11** The role of mitochondrial fission/fusion in CNS axon regeneration. A. KREYMERMAN*; Y. WANG; N. J. KUNZEVITZKY; M. B. STEKETEE; J. L. GOLDBERG. *Shiley Eye Center, UCSD, Univ. of Miami Miller Sch. of Med., Univ. of California San Diego, Univ. of California San Diego, Univ. of Pittsburgh, Univ. of California San Diego.*

4:00 C15 **399.12** Elevation of chemorepulsive axon guidance receptors UNC5 and Neogenin are involved in the "bad-regenerating" RS neuron death after spinal cord injury. J. CHEN*; C. LARAMORE; J. S. SHAHOUD; M. SHIFMAN. *Shriners Hosp. Pediatric Res. Ctr.*

1:00 C16 **399.13** ▲ Temporal and spatial analysis of neuronal fiber subpopulations in the regenerating radial nerve cord of the sea cucumber Holothuria glaberrima. C. I. LOPEZ*; L. VÁZQUEZ-FIGUEROA; D. CRESPO-VÉLEZ; J. E. GARCÍA-ARRARÁS. *Univ. of Puerto Rico, Rio Piedras Campus.*

2:00 C17 **399.14** MicroRNA-26a regulates mammalian axon regeneration by inducing GSK3β expression. J. JIANG*; C. LIU; X. SAIJILAFU; B. ZHANG; Z. JIAO; Y. HU; M. ZHANG; Y. GUO; J. YUAN; F. ZHOU. *Johns Hopkins Univ. Sch. of Med., Shengjing Hosp. of China Med. Univ.*

3:00 C18 **399.15** Protein-protein interactions involved in the transcriptional control of intrinsic axon growth ability in retinal ganglion cells. A. APARA*; Y. WANG; A. TRILLO; K. IWAO; M. BLACKMORE; J. GOLDBERG. *Univ. of Miami Miller Sch. of Medicine, Bascom Palmer Eye Inst., UCSD, Univ. of Miami, Marquett Univ., UCSD.*

4:00 C19 **399.16** Evaluating the role and effect of specific neuron-intrinsic pathways that mediate collateral axonal sprouting after CNS injury. D. LEE*; X. LUO; B. YUNGHER; J. LEE; K. PARK. *Univ. of Miami Miller School/ Miami Project.*

1:00 C20 **399.17** DRGs haploinsufficient for the mRNA binding protein IMP1 show increased regenerative properties and alterations in the PTEN/mTOR pathway. A. L. HAWTHORNE*; P. L. PRICE; J. L. TWISS; G. J. BASSELL. *Emory Univ., Univ. of SC.*

2:00 C21 **399.18** Translational analysis of retinal ganglion cells undergoing axon regeneration. E. BRAY*; K. LYAPICHEV; X. LUO; J. LEE; K. PARK. *Univ. of Miami Miller Sch. of Med.*

3:00 C22 **399.19** Zinc is a critical regulator of optic nerve regeneration. Y. LI*; L. ANDEREGGEN; K. OMURA; B. ERDOGAN; M. S. ASDOURIAN; C. SHROCK; H. GILBERT; Y. YIN; U. APFEL; S. J. LIPPARD; P. A. ROSENBERG; L. I. BENOWITZ. *Children's Hosp. Boston and Harvard Med. Sch., State Key Lab. of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen Univ., MIT.*

4:00 C23 **399.20** Sustained neurogenesis-an instrument for a successful regeneration in adulthood. J. NINKOVIC*; J. BARBOSA; R. DI GIAIMO; M. IRMLER; D. TRÜMBACH; J. BECKERS; M. GÖTZ. *Helmholtz Zentrum München.*

1:00 C24 **399.21** ▲ Differential binding of receptor protein tyrosine phosphatase type iia family (rptpσ/rptpδ/lar) to glycosaminoglycans. A. A. MORGAN*; Y. KATAGIRI; P. YU; N. J. BANGAYAN; R. JUNKA; H. M. GELLER. *NIH, NIH.*

2:00 C25 **399.22** AKT regulates Id2 for axonal regeneration in CNS. H. KO*; J. CHO; K. LEE; J. AHN. *Sungkyunkwan Univ. Sch. of Med., Sungkyunkwan Univ. Sch. of Med.*

3:00 C26 **399.23** H3k27 methylation balance regulates axon regeneration. C. LIU*; R. WANG; J. JIANG; Z. JIAO; X. SAIJILAFU; B. ZHANG; S. ZHANG; M. ZHANG; Y. HU; F. ZHOU. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med.*

4:00 C27 **399.24** Celsr3 is required in hippocampal projection neurons for network wiring and spatial learning. Y. HUANG*; J. FENG; Y. DING; K. SO; L. ZHOU; Y. QU. *GHM Inst. of CNS Regeneration.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

400. Invertebrate Transmission

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

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

1:00 C28 **400.01** Localization of BgNPY-like immunoreativity in the nervous system of Biomphalaria glabrata, an intermediate host for schistosomiasis. S. ROLÓN-MARTÍNEZ*; N. DELGADO-RIVERA; G. TORRES; L. O. VAASJO; E. RIVERA; M. W. MILLER. *Inst. of Neurobio., Univ. of Puerto Rico, Med. Sci. Campus.*

2:00 C29 **400.02** Genomic portrait of a synapse: Enormous variability and unexpected complexity in the molecular complement. A. B. KOHN*; L. L. MOROZ. *Universtiy of Florida Whitney Lab., Univ. of Florida, The Whitney laboratory for Marine Biosci.*

3:00 C30 **400.03** Use of an internal FLAG epitope for biochemical characterization and localization of histidine decarboxylase (HDC) in tissues of *Drosophila melanogaster.* M. G. BURG*; M. MIANECKI; A. HAGE; D. BURG. *Grand Valley State Univ., Grand Valley State Univ., Grand Valley State Univ.*

4:00 C31 **400.04** A role for dopamine in peripheral sensory processing in the predatory sea-slug Pleurobranchaea. B. M. SCHAUB; B. L. KLUSAS; J. W. BROWN; D. I. VALLEJO; N. DELGADO; N. M. MADEIROS; S. R. MARTINEZ; E. BARRETO; M. W. MILLER; R. GILLETTE*. *Univ. Illinois, Univ. of Illinois, Univ. of Illinois, Univ. of Puerto Rico, Univ. of Puerto Rico, Univ. Illinois.*

1:00 C32 **400.05** Identifying serotonergic neurons in the brain of the cockroach Rhyparobia maderae implicated in the regulation of carbohydrate self-selection feeding behavior. L. DANIELS*, JR; R. W. COHEN. *California State University, Northridge.*

2:00 C33 **400.06** Histamine-like immunoreactivity in the central and peripheral nervous systems of Biomphalaria spp., intermediate host snails for schistosomiasis. M. R. HABIB; A. H. MOHAMED; G. Y. OSMAN; A. T. SHARAF EL-DIN; H. S. MOSSALEM; N. DELGADO; G. TORRES; S. ROLON-MARTINEZ; M. W. MILLER*; R. P. CROLL. *Theodor Bilharz Res. Inst., Dalhousie Univ., Minufiya Univ., Inst. Neurobio., Univ. of Puerto Rico Med. Sci. Campus.*

3:00 C34 **400.07** Establishing and maintenance of neuronal identity in *Aplysia:* Tracing the origins of serotonergic and dopaminergic neurons in bilaterians. E. C. DABE*; A. B. KOHN; L. L. MOROZ. *Univ. of Florida Whitney Lab., Univ. of Florida.*

4:00 C35 **400.08** Brain transcriptomes from six sea slug species provide insights into neural circuit evolution. A. SENATORE; P. S. KATZ*. *Georgia State Univ.*

1:00 C36 **400.09** Identification of novel serotonin receptors in six species of sea slugs. A. N. TAMVACAKIS*; A. SENATORE; P. S. KATZ. *Georgia State Univ.*

2:00 C37 **400.10** Evidence of nicotine-induced, d-tubocurarine-insensitive behavior in planarians. O. R. PAGAN*; E. MONTGOMERY; S. DEATS; D. BAKER; D. BACH. *West Chester Univ., West Chester Univ.*

3:00 C38 **400.11** ▲ Identified aminergic neurons in Biomphalaria glabrata, an intermediate host for human intestinal schistosomiasis. L. VAASJO*; N. DELGADO; S. ROLÓN-MARTÍNEZ; M. W. MILLER. *Inst. of Neurobio., Inst. of Neurobiology, Univ. of Puerto Rico Med. Sci. Campus.*

4:00 C39 **400.12** Identification of Neuropeptide-like Proteins (NLPs) in the motor neurons of Ascaris suum. J. J. KNICKELBINE*; C. J. KONOP; C. D. WRUCK; A. O. W. STRETTON. *Univ. of Wisconsin-Madison.*

1:00 C40 **400.13** Cephalopod transcriptomes unravel details about centralized brain evolution across metazoans. G. C. WINTERS*; A. B. KOHN; B. HOCHNER; N. STERN; E. T. WALTERS; R. CROOK; Y. BOBKOVA; L. L. MOROZ. *Univ. of Florida- Whitney Lab. for Marine Biosci., Hebrew Univ. of Jerusalem, Univ. of Texas.*

2:00 C41 **400.14** ▲ Localization of FMRFamide-like immunoreativity in the nervous system of Biomphalaria glabrata, an intermediate host for schistosomiasis. R. A. PAGAN-ALEMAN*; S. ROLÓN-MARTÍNEZ; N. DELGADO-RIVERA; M. W. MILLER. *Inst. of Neurobio., Univ. of Puerto Rico, Med. Sci. Campus.*

POSTER

401. Nicotinic Receptors: Physiology and Pharmacology

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

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

1:00 C42 **401.01** ● Differential efficacies of the nicotinic alpha4beta2 desensitizing agents sazetidine-a and analogs in reducing nicotine self-administration in rats. E. D. LEVIN*; S. SLADE; C. WELLS; A. H. REZVANI; Y. LIU; V. M. YENUGONDA; M. BROWN; Y. XIAO; K. KELLAR. *Duke Univ. Med. Ctr., Georgetown Univ. Sch. of Med.*

2:00 C43 **401.02** Role of nicotinic acetylcholine $\alpha 4\beta 2$* receptors in alcohol intake: testing novel compounds in rats. A. H. REZVANI*; M. L. BROWN; Y. XIAO; Y. LIU; V. M. YENUGONDA; K. J. KELLAR; E. D. LEVIN. *Duke Univ., Georgetown Univ.*

3:00 C44 **401.03** Cross tolerance between nicotine and ethanol is accompanied by increased ethanol self-administration and changes in striatal synaptic transmission. C. ABBURI; R. A. E. METZ; R. KAMBER; S. L. WOLFMAN; D. S. MCGEHEE; J. MCDAID*. *Univ. of Chicago, Univ. of Chicago.*

4:00 C45 **401.04** Interactions of hippocampal nAChR subtypes with beta amyloid and the kinase inhibitor gesistein. D. G. CLARK; S. N. SUDWEEKS*. *Brigham Young Univ., Brigham Young Univ.*

1:00 C46 **401.05** Novel myosmine derivatives as potential therapeutics for Alzheimer's disease evaluated *in vitro* by multi-electrode electrophysiology of a neuronal network and X-ray crystallography. T. T. DENTON*; T. T. TALLEY; P. SENGUPTA; K. HO; J. BOBANGO; B. MUMMEY; A. LE; A. PENTECOST; P. TAYLOR. *Washington State Univ. Col. of Pharm., Eastern Washington Univ., Idaho State Univ. Col. of Pharm., Washington State Univ., UCSD.*

2:00 C47 **401.06** Developmental regulation of nicotinic receptor signaling in mouse hippocampal CA1 pyramidal neurons. B. Y. T. CHUNG; D. L. JACKLIN; W. BIGNELL; B. D. WINTERS; C. D. BAILEY*. *Univ. of Guelph, Univ. of Guelph.*

3:00 C48 **401.07** Facilitation of alpha 7 nachr current by picomolar concentration of amyloid beta peptide. M. ISLAM*; K. DEBOEUF; L. LAURIDSEN; J. BAE; J. FARLEY. *Indiana Univ. Bloomington.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 C49 **401.08** Association of alcohol preference with the low hypothalamic alpha7 nicotinic receptor level. S. NUUTINEN; O. S. SALMINEN*; P. PANULA. *Univ. Helsinki, Univ. Helsinki, Univ. Helsinki.*

1:00 C50 **401.09** Combinations of nicotine and ethanol enhance AMPA receptor function in VTA DA neurons through activation of $\alpha6\beta2$* nAChRs. S. E. ENGLE*; J. M. MCINTOSH; R. M. DRENAN. *Purdue Univ., Univ. of Utah, George E. Wahlen Veterans Affairs Med. Ctr.*

2:00 C51 **401.10** Individual differences in the modulation of rapid dopamine signals by presynaptic nicotinic acetylcholine receptors. M. J. FERRIS*; S. R. JONES. *Wake Forest Sch. of Med.*

3:00 C52 **401.11** ● Native $\alpha7$-containing nicotinic acetylcholine receptors form heteromers with $\beta2$ subunits in the human cortex and have a distinct pharmacology: Evidence for an alternative drug target for schizophrenia and Alzheimer's disease. J. D. MIKKELSEN*; R. ZWART; D. URSU; G. GILMOUR; M. M. JENSEN; L. PINBORG; J. WU; E. SHER; M. S. THOMSEN. *Univ. Copenhagen - Rigshospitalet, Eli Lilly & Co, Barrow Neurolog. Inst.*

4:00 C53 **401.12** The associations of the $\alpha5$ neuronal nicotinic acetylcholine receptor subunit in the rodent habenula. R. VENKATESH*; R. P. YASUDA; T. H. GUPTA-GOLDENBERG; B. B. WOLFE; K. J. KELLAR. *Georgetown Univ. Dept. of Pharmacol.*

1:00 C54 **401.13** miRNome analysis of the mammalian neuronal nicotinic acetylcholine receptor gene family. A. P. CASSERLY; E. M. HOGAN; M. D. SCOFIELD; Z. MOU; R. ZHAO-SHEA; C. W. JOHNSON; A. R. TAPPER; P. D. GARDNER*. *Univ. Massachusetts Med. Sch., Univ. Massachusetts Med. Sch.*

2:00 C55 **401.14** ● Lynx1 interacts with multiple nicotinic acetylcholine receptor subtypes in the human brain: Relation to Alzheimer's disease-like pathology. M. S. THOMSEN*; M. ARVANITI; M. M. JENSEN; E. N. LYUKMANOVA; M. A. SHULEPKO; W. HÄRTIG; V. TSETLIN; J. D. MIKKELSEN. *Dept. of Drug Design and Pharmacology, Univer, Copenhagen Univ. Hospital, Rigshospitalet, Russian Acad. of Sci., Univ. of Leipzig.*

3:00 C56 **401.15** Blockade of $\alpha6$* nAChRs reduces L-dopa-induced dyskinesias; studies using parkinsonian $\alpha6$* nAChR gain of function mice. M. M. MCGREGOR*; T. BORDIA; R. M. DRENAN; M. QUIK. *SRI Intl., Purdue Univ.*

4:00 C57 **401.16** Role of nicotinic receptor subunits in spontaneous activity of prelimbic cortex. F. KOUKOULI; D. TZIOTIS; M. NILGES; D. DIGREGORIO; U. MASKOS*. *Inst. Pasteur, Inst. Pasteur, Inst. Pasteur.*

1:00 C58 **401.17** The $\alpha7$ nicotinic receptor agonist ABT-107 protects against nigrostriatal damage in parkinsonian rats. T. BORDIA*; M. MCGREGOR; R. L. PAPKE; M. J. MCINTOSH; M. W. DECKER; M. QUIK. *SRI Intl., Dept. of Pharmacol. and Therapeutics, Univ. of Florida Col. of Med., George E. Wahlen Veterans Affairs Med. Ctr., AbbVie, Inc, 1 North Waukegan Road.*

2:00 C59 **401.18** Differential localization and function of nicotinic acetylcholine receptors in subdivisions of medial habenula. P. SHIH*; S. ENGLE; G. OH; P. DESHPANDE; N. PUSKAR; H. LESTER; R. DRENAN. *Purdue Univ., Caltech, Caltech.*

3:00 C60 **401.19** Interactions between NMDA and nicotinic receptor ligands in organotypic hippocampal slice cultures. D. HAPP*; D. S. MACDONALD; H. DEIGNER; R. A. TASKER. *Univ. of Prince Edward Island, Hochschule Furtwangen Univ.*

4:00 C61 **401.20** Activation of $\alpha7$ nicotinic acetylcholine receptors increased intracellular cAMP levels in cultured hippocampal neurons. Q. CHENG*; J. L. YAKEL. *NIEHS.*

1:00 C62 **401.21** ● Nicotinic receptors regulate inflammatory and apoptotic signaling through nonconductive states. T. M. GOULD*; C. W. KINTER; N. A. HORENSTEIN; R. L. PAPKE. *Univ. of Florida, Univ. of Florida.*

2:00 C63 **401.22** Nicotine increases GABAergic input to 5-HT dorsal raphe neurons by stimulation of presynaptic $\alpha7$ nicotinic acetylcholine receptors. F. HERNANDEZ VAZQUEZ; K. CHAVARRIA; J. GARDUÑO; S. HERNANDEZ LOPEZ; S. P. MIHAILESCU*. *Univ. Nacional Autónoma de Mexico, Fac. of Medicine, UNAM.*

3:00 C64 **401.23** The effect of AT-1001, a selective $\alpha3\beta4$ nAChR functional antagonist, on nicotine withdrawal and stress+cue induced reinstatement in rats. M. YUAN*; A. M. MALAGON; D. YASUDA; J. D. BELLUZZI; F. M. LESLIE; N. T. ZAVERI. *Univ. of California - Irvine, Astraea Therapeut.*

4:00 C65 **401.24** Upregulation of nicotinic acetylcholine receptors containing the alpha4 subunit in VTA GABAergic neurons underlies reward sensitization. J. NGOLAB*; L. LIU; P. D. GARDNER; A. R. TAPPER. *Brudnick Neuropsychiatric Res. Institute, Univ. of Massachusetts Med. Sch.*

1:00 C66 **401.25** Dose-dependent effects of domoic acid on expression of alpha 7 nicotinic receptors in organotypic hippocampal slice cultures. J. R. HAWKINS*; D. S. MACDONALD; R. A. TASKER. *Univ. of Prince Edward Island.*

2:00 C67 **401.26** Apigenin potentiates human $\alpha7$-nicotinic acetylcholine receptors. K. S. YANG*; T. R. PRYTKOVA; S. M. NURULAIN; F. C. HOWARTH; M. OZ. *Chapman Univ., UAE university, UAE university.*

3:00 C68 **401.27** Inhibition of nicotinic acetylcholine receptors by philanthotoxins is strongly influenced by subunit composition. H. KACHEL*; H. FRANZYK; K. STRØMGAARD; D. TIKHONOV; I. MELLOR. *Univ. of Nottingham, Univ. of Copenhagen, Russian Acad. of Sci.*

4:00 C69 **401.28** ● Effects of Phantasmidine on neuronal nicotinic ACh and serotonin 5-HT3 receptors. A. A. PANDYA*; J. YAKEL. *Univ. of Alaska Fairbanks, Natl. Inst. of Envrn. Hlth. Sciences, Natl. Inst. of Hlth.*

1:00 C70 **401.29** Cytoskeletal motility and structural growth in developing neural cells is driven by $\alpha7$- nicotinic acetylcholine receptor association with G proteins. J. R. KING; J. C. NORDMAN; S. P. BRIDGES; S. BLACK; D. P. VELTRI; M. LIN; A. SHEHU; N. KABBANI*. *George Mason Univ., Krasnow Inst.*

2:00 C71 **401.30** Varenicline attenuates ventromedial prefrontal cortex activity, modulates reward circuitry for alcohol in heavy drinkers. J. L. GOWIN*; V. VATSALYA; R. MOMENAN; V. A. RAMCHANDANI. *Natl. Inst. On Alcohol Abuse and Alcoholism.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

402. Neurotransmitter Release: Docking, Fusion, and Calcium Dependence

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

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

1:00 C72 **402.01** Synapsin Ia, a synaptic vesicle protein, regulates the dynamics of dense-core vesicle exocytosis. H. YANG*; Y. CHANG; C. WANG. *Natl. Taiwan Univ.*

2:00 D1 **402.02** Anesthetic effects on the calcium sensitivity of synaptic vesicle exocytosis in hippocampal neurons. J. P. BAUMGART*; Z. ZHOU; M. HARA; M. B. HOPPA; T. A. RYAN; H. C. HEMMINGS. *Cornell Univ. Weill Med. Col., Natl. Inst. of Hlth., Cornell Univ. Weill Med. Col., Dartmouth Col.*

3:00 D2 **402.03** Nanodomain coupling between Ca^{2+} channels and release sensors explains the apparent Ca^{2+} independence of transmitter release time course at a GABAergic synapse. I. ARAI; P. JONAS*. *IST Austria.*

4:00 D3 **402.04** Syntaxin1B deficiency affects Ca^{2+} sensitivity of vesicle fusogenicity and short term plasticity at the Calyx of Held. Q. GUO; J. GUO; X. WANG; J. SUN*. *Chinese Acad. of Sci.*

1:00 D4 **402.05** The N-terminal peptide of syntaxin-1 differentially contributes to neurosecretion depending on the conformational state of the protein. S. PARK*; S. KANG; T. CHOU; L. PARSAUD; S. SUGITA. *Krembil Discovery Tower, Univ. of Toronto.*

2:00 D5 **402.06** Synaptophysin regulates fusion pores and the mode of Ca^{2+}-triggered exocytosis of dense-core vesicles in chromaffin cells. C. CHANG*; M. B. JACKSON. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

3:00 D6 **402.07** Synaptotagmin III modulates the kinetics of regulated exocytosis by Ca^{2+} binding to the C2AB domains. Y. HUANG*; Y. HSIAO; S. KAO; Y. CHEN; C. WANG. *Natl. Taiwan Univ.*

4:00 D7 **402.08** Optogenetic-mediated glutamate release from the rat amygdala. G. LONART*; L. L. WELLMAN; M. MACHIDA; M. F. FITZPATRICK; L. D. SANFORD. *Eastern Virginia Med. Sch.*

1:00 D8 **402.09** Behavioral responses of Drosphila *melanogaster* lines carrying SNAP25 or Syntaxin point mutations. A. MEGIGHIAN*; O. ROSSETTO; M. SCORZETO; C. MONTECUCCO; M. A. ZORDAN. *Univ. of Padova, Univ. of Padova.*

2:00 D9 **402.10** Functional imaging of presynaptic calcium modulation mediated by metabotropic GABAB receptors. J. A. MARTINEZ-LOPEZ; F. MAVILLARD; L. GOMEZ-SANCHEZ; R. FERNANDEZ-CHACON*. *IBIS, HUVR/CSIC/ Universidad de Sevilla & CIBERNED.*

3:00 D10 **402.11** Molecular insights into the regulation of synaptic transmission by protein ubiquitination. A. CAPUTO*; K. M. MYERS; A. A. VASHISHT; J. A. WOHLSCHLEGEL; F. E. SCHWEIZER. *David Geffen Sch. of Med. at UCLA, David Geffen Sch. of Med. at UCLA.*

4:00 D11 **402.12** Compartmentalization of voltage-gated Ca^{2+} channels in the membrane of rat anterior pituitary cells. I. NUSSINOVITCH*; E. SOSIAL; A. TZOUR. *Hebrew Univ.*

1:00 D12 **402.13** Complexin regulates short-term plasticity of synchronous, asynchronous and delayed quantal release. R. A. JORQUERA*; E. A. QUIROZ. *UCC, Univ. de Chile.*

2:00 D13 **402.14** Complexin 3 regulates vesicle release at a mammalian ribbon synapse. L. S. MORTENSEN*; K. REIM; J. KE; N. BROSE; J. H. SINGER; J. RHEE. *Max-Planck-Institute of Exptl. Med., Univ. of Maryland.*

3:00 D14 **402.15** Spontaneous Ca^{2+} transients in the nerve terminal of neocortical excitatory neurons. V. TRAN*; C. STRICKER. *The Australian Natl. Univ., The Australian Natl. Univ.*

4:00 D15 **402.16** Differential transmitter and peptide release modulated by RNA editing of Ca^{2+}-dependent activator protein for secretion (CAPS1). R. ULBRICHT*; R. LAZARENKO; Q. ZHANG; R. B. EMESON. *Vanderbilt Univ. Sch. of Med., Vanderbilt Univ. Sch. of Med., Vanderbilt Univ. Sch. of Med.*

1:00 D16 **402.17** Characterization of voltage-gated Ca^{2+} channels at individual presynaptic terminals of lamprey reticulospinal axons. S. RAMACHANDRAN*; S. ALFORD. *Univ. Illinois, Chicago, Univ. of Illinois at Chicago.*

2:00 D17 **402.18** Paired presynaptic and postsynaptic patch clamp recordings to study the effects of action potential kinetics and afterpotentials on synaptic transmission. K. G. PARADISO*; S. G. CLARKE; A. KISNER. *Rutgers Univ.*

3:00 D18 **402.19** Reverse operation of NCX mediates presynaptic Ca^{2+} transient and spontaneous glutamate release during *in vitro* ischemia. S. LEE*; J. KIM. *Univ. of Texas Hlth. Sci. Ctr.*

POSTER

403. Neurotransmitter Release: Vesicle Recycling and Biogenesis

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

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

1:00 D19 **403.01** Requirement of membrane cholesterol in vesicle endocytosis at a mammalian central synapse. H. YUE; J. XU*. *Georgia Regents Univ.*

2:00 D20 **403.02** Synaptic vesicle phluorins differentially report distinct endocytic routes. J. C. NICHOLSON-FISH*; K. J. SMILLIE; M. A. COUSIN. *Univ. of Edinburgh, Univ. of Edinburgh.*

3:00 D21 **403.03** Disruption of adaptor protein 2µ in hair cells impairs vesicle replenishment and hearing. S. JUNG; T. MARITZEN; C. WICHMANN; Z. JING; N. H. REVELO; H. EL-MOYED; S. MEESE; S. M. WOJCIK; I. PANOU; P. SCHU; R. FICNER; E. REISINGER; S. RIZZOLI; J. NEEF; N. STRENZKE; V. HAUCKE; T. MOSER*. *Univ. Goettingen Med. Sch., Collaborative Res. Ctr. 889, Univ. of Goettingen, Leibniz Inst. für Molekulare Pharmakologie (FMP), NeuroCure Cluster of Excellence & Collaborative Res. Ctr. 958, Freie Univ. Berlin, Mol. Architecture of Synapses Group,InnerEarLab, Dept. of Otolaryngology, Univ. Med. Ctr. Goettingen, Auditory Systems Physiol. Group, InnerEarLab, Dept. of Otolaryngology, Univ. Med. Ctr. Goettingen, Dept. of Neuro- and Sensory Physiology, Univ. Med. Ctr. Goettingen, Dept. of Mol. Structural Biology, Inst. for Microbiology and Genetics, Univ. of Goettingen, Dept. of Mol. Neurobiology, Max Planck Inst. for Exptl. Med., Dept. of Cell. Biochemistry, Univ. Med. Ctr. Goettingen, Mol. Biol. of Cochlear Neurotransmission Group, InnerEarLab, Dept. of Otolaryngology, Univ. Med. Ctr. Goettingen, Ctr. for Nanoscale Microscopy and Mol. Physiol. of the Brain.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 D22 **403.04** pH regulation by carbonic anhydrase modulates synaptic vesicle release mode at the mouse levator auris longus neuromuscular junction. O. D. UCHITEL*; A. I. GROISMAN. *IFIBYNE UBA CONICET.*

1:00 D23 **403.05** Regulation of vesicle cycling by myosin light chain kinase at hippocampal boutons. L. LI; H. YUE; Y. ZHU*; J. XU. *Georgia Regents Univ.*

2:00 D24 **403.06** Synaptic vesicle recycling is enhanced in complexin deficient *Drosophila* neuromuscular junctions. N. SABEVA*; A. GONZALEZ; M. BYKHOVSKAIA. *Univercidad Central Del Caribe.*

3:00 D25 **403.07** Enhanced synaptic vesicle recycling in cultured striatal neurons of DYT1 dystonia mouse model. N. C. HARATA*; S. IWABUCHI; J. KOH. *Univ. Iowa Col. Med.*

4:00 D26 **403.08** A novel membrane-binding probe for the morphological and molecular characterization of synaptic vesicle recycling pathways. N. H. REVELO*; S. TRUCKENBRODT; S. O. RIZZOLI. *STED Microscopy of Synaptic Function, European Neurosci. Inst.*

1:00 D27 **403.09** Hsp70 generates force to dissociate clathrin coats by an osmotic-pressure mechanism that is amplified by Hsp70 self-association. E. M. LAFER*; S. JIN; R. SOUSA. *Univ. Texas Hlth. Sci. Ctr.*

2:00 D28 **403.10** Trafficking of the vesicular glutamate transporter, VGLUT2. H. LI*; M. SANTOS; K. PARK; S. M. VOGLMAIER. *Univ. California, San Francisco.*

3:00 D29 **403.11** Parallel operation of slow and fast releasing readily releasable pools at calyx of Held synapses. K. MAHFOOZ; R. RENDEN; J. F. WESSELING*. *Univ. Navarra/CIMA, Univ. of Nevada at Reno.*

4:00 D30 **403.12** SNAP-25 phosphorylation modulates the exocytotic kinetics in secretory cells and the large-scale network activity in the developing rat retina. Y. HSIAO*; C. YANG; Y. HUANG; C. WANG. *Natl. Taiwan Univ.*

1:00 D31 **403.13** Increased glutamate release in the CA3 correlates with memory deficits in mice expressing P301L tau. H. C. HUNSBERGER*; C. C. RUDY; D. S. WEITZNER; M. N. REED*. *West Virginia Univ.*

2:00 D32 **403.14** Readily releasable vesicles recycle at the active zone of hippocampal synapses. T. A. SCHIKORSKI*. *Univ. Central Del Caribe.*

3:00 D33 **403.15** Monte Carlo simulation of transmitter release and receptor activation at CA1 glutamatergic synapses supports modified fusion dynamics as a mechanism of 5-HT1BR inhibition. E. C. CHURCH*; E. HAMID; S. ALFORD. *Univ. of Illinois At Chicago, NIH, Univ. of Illinois At Chicago.*

POSTER

404. LTP: Pre- and Postsynaptic Mechanisms II

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

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

1:00 D34 **404.01** Early developmental exposure to lead chronically inhibits vesicular release and alters presynaptic ultrastructure at excitatory synapses in the adult rat hippocampus. P. K. STANTON*; X. ZHANG; S. R. GUARIGLIA; K. H. STANSFIELD; J. L. MCGLOTHAN; T. R. GUILARTE. *New York Med. Col., Columbia Univ.*

2:00 D35 **404.02** Neurophysiological responses of recovery in pediatric mice compared to adult mice with transient focal cerebral ischemia. J. E. ORFILA*; H. GREWAL; T. SHIMIZU; R. T. TRAYSTMAN; P. S. HERSON. *Univ. of Colorado, Anschutz Med. Campus.*

3:00 D36 **404.03** ▲ Long lasting changes in metabolic efficiency occur during long term potentiation in hippocampal neurons. C. M. PEQUIGNOT; S. SACCHETTI; H. PARK; C. WEISS; P. LICZNERSKI; E. A. JONAS*. *Yale Univ. Sch. Med.*

4:00 D37 **404.04** ● CBB68 protects against Aβ oligomer-induced deficits in synaptic function. R. JEGGO; J. WALCZAK; A. D. WHYMENT; I. VEREYKEN; A. TEPPER; G. SCHEEFHALS; D. SPANSWICK*. *NeuroSolutions Ltd., Cerebrasol Ltd., Crossbeta Biosci., Monash Univ., Univ. of Warwick.*

1:00 D38 **404.05** ● Enzymatic removal of chondroitin sulfates modulates neuronal excitability and synaptic plasticity in the hippocampal CA1 region. Y. DEMBITCKAYA*; I. SONG; M. DORONIN; A. DITYATEV; A. SEMANOV. *Univ. of Nizhny Novgorod, Mol. Neuroplasticity Group, German Ctr. for Neurodegenerative Dis. (DZNE).*

2:00 D39 **404.06** ● Post-synaptic long-term potentiation of gaba synapses in the oval bed nucleus stria terminalis. E. HAWKEN*; E. C. DUMONT. *Queen's Univ.*

3:00 D40 **404.07** Synaptic spill-over of LTP in old animals through excitatory GABAergic transmission. G. C. FAAS*; I. FERANDO; I. MODY. *UCLA, UCLA.*

4:00 D41 **404.08** Cell type-specific GABAergic plasticity in the prefrontal cortex. C. Q. CHIU*; M. J. HIGLEY. *Yale Univ. Sch. of Med.*

1:00 D42 **404.09** Presynaptic or BDNF-dependent postsynaptic STDP Expression relies on postsynaptic action potential pattern during STDP induction. E. EDELMANN; P. LICHTENECKER; T. BRIGADSKI*; V. LESSMANN. *Otto-von-Guericke Univ., Ctr. of Behavioral Brain Sci. (CBBS).*

2:00 D43 **404.10** A cellular and synaptic level model for reconsolidation. D. B. KASTNER*; T. SCHWALGER; L. ZIEGLER; W. GERSTNER. *EPFL - LCN, EPFL.*

3:00 D44 **404.11** Engineering a memory with LTD and LTP. S. NABAVI*. *UCSD.*

4:00 D45 **404.12** Learning induced LTP in mice. J. REMAUD*; F. ROUMIER; S. PECH; B. FRANCÈS; L. DAHAN. *Ctr. De Recherches Sur La Cognition Animale (CRCA - UMR 5169).*

1:00 D46 **404.13** Molecular plasticity signature in hippocampal area CA1. J. JEDRZEJEWSKA-SZMEK*; A. M. CHAY; K. T. BLACKWELL. *The Krasnow Inst. For Advanced Study.*

2:00 D47 **404.14** Incorporation of Calcium-Permeable AMPA receptors at silent synapses during hippocampal long-term potentiation. J. RAH*; D. MORITA; J. T. R. ISAAC. *Korea Brain Res. Inst., Developmental Synaptic Plasticity Section, Natl. Inst. of Neurolog. Disorders and Stroke, Natl. Inst. of Hlth.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

405. APP Function and Processing

Theme C: Disorders of the Nervous System

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

1:00 D48 **405.01** Neurobiological role of a novel microRNA regulating amyloid precursor protein (APP) expression via interaction with iron regulatory protein-1 (IRP-1): Implication in Alzheimer disease (AD). J. M. LONG*; N. CHOPRA; J. T. ROGERS; B. RAY; N. H. GREIG; K. SAMBAMURTI; D. K. LAHIRI. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Harvard Med. School, MGH, Natl. Inst. of Aging, NIH, Med. Univ. of South Carolina.*

2:00 D49 **405.02** Calpain mediates degradation of novel APP C-terminal fragments. H. WANG*; A. SAUNDERS. *Drexel Univ., Drexel Univerisity Col. of Med.*

3:00 D50 **405.03** O-glcnacylation of app by justicidin a reduces abeta secretion. Y. CHUN*; Y. CHO; O. KWON; J. KIM; H. YANG; S. CHUNG. *Sungkyunkwan Univ. Sc. Med., Korea Inst. of Sci. and Technol.*

4:00 D51 **405.04** Role of O-GlcNAcylation on mitochondrial ATP synthase in Alzheimer's disease pathogenesis. M. CHA*; H. CHO; S. JIN; C. KIM; Y. JUNG; D. KIM; H. CHOI; M. KANG; J. KIM; H. SONG; E. YI; I. MOOK-JUNG. *Seuol Natl. Univ., Dept. of Life science, Korea Univ., Dept. of Mol. Pharmacology&Medicine, Seoul Natl. Univ.*

1:00 D52 **405.05** Secreted amyloid precursor protein-alpha (sAPPα) modulates long-term potentiation, induces metaplasticity and regulates glutamate receptor localization in rat hippocampus. K. D. PARFITT*; B. G. MOCKETT; D. GUEVREMONT; K. BOURNE; W. P. TATE; J. M. WILLIAMS; W. C. ABRAHAM. *Pomona Col., Univ. of Otago, Univ. of Otago, Univ. of Otago, Univ. of Otago, Univ. of Otago.*

2:00 D53 **405.06** Secreted amyloid precursor protein-α overexpression *in vivo* rescues the long-term potentiation deficit in a mouse model of Alzheimer's disease. M. F. YAHAYA; K. D. PARFITT; B. G. MOCKETT; L. SCHODERBÖCK; H. E. PEACOCK; K. BOURNE; W. P. TATE; S. M. HUGHES; W. C. ABRAHAM*. *Natl. Univ. of Malaysia, Departments of Psychology, Biochem. and Brain Hlth. Res. Centre, Univ. of Otago, Dept. of Neuroscience, Pomona College, Claremont, CA 91711, USA, Dept. of Psychology and Brain Hlth. Res. Centre, Univ. of Otago, Dept. of Biochem. and Brain Hlth. Res. Centre, Univ. of Otago, Univ. of Otago.*

3:00 D54 **405.07** ● Activity dependent regulation of APP by Plk2: Novel roles in synaptic plasticity. *J. LEE; Y. LEE; K. LEE; B. T. HARRIS; H.-S. HOE; D. T. S. PAK. *Georgetown Univ. Med. Ctr., Washington, DC; Korea Advanced Inst. of Sci. and Technol., Daejeon,* Republic of *Korea; Korea Brain Res. Inst., Daegu, Republic of Korea.*

4:00 D55 **405.08** ATBF1 is a novel binding protein of amyloid-β precursor protein that affects amyloid-β production. C. JUNG*; K. UHM; M. KIM; M. KAWAGUCHI; H. AKATSU; Y. MIURA; S. MISUMI; E. CHOI; Y. KIM; M. MICHIKAWA; H. HIDA. *Nagoya City Univ., Natl. Ctr. for Geriatrics and Gerontology, Niigata Rosai Hosp., Nagoya City Univ., Grad. Sch. of Med. Sci., Nagoya City Univ. Grad. Sch. of Med. Sci., Hallym Univ., Hallym Univ., Nagoya City Univ. Grad. Sch. of Med. Sci.*

1:00 D56 **405.09** Amyloid precursor protein (APP) is ubiquitinated at multiple sites in the COOH-terminal domain as a signal for endosomal sorting. R. WILLIAMSON*; Z. M. LASIECKA; E. MOREL; Z. CHAMOUN; C. VETANOVETZ; S. A. SMALL; G. DI PAOLO. *Columbia Univ., Columbia Univ., Columbia Univ.*

2:00 D57 **405.10** Ectodomain of C-terminal fragment, the destiny switch of β-amyloid precursor protein. J. TAN*; S. LI; H. HOU; J. DENG; J. TIAN; B. GIUNTA; Y. WANG; D. SAWMILLER; P. SANBERG; A. SMITH; D. OBREGON; T. MORI. *Univ. of South Florida, Dalian Univ. of Technol., Univ. of South Florida, the Third Military Med. Univ., Univ. of South Florida, Saitama Med. Ctr. and Saitama Med. Univ.*

3:00 D58 **405.11** Aβ-induced degradation of BMAL1 and CBP leads to circadian rhythm disruption in an Alzheimer's disease mouse model. H. SONG*; S. KANG; M. MOON; H. CHOE; D. HAN; C. JANG; S. CHO; K. KIM; I. MOOK-JUNG. *Seoul Natl. Univ., Seoul Natl. Univ., Kyung Hee Univ.*

4:00 D59 **405.12** Transcription regulation of the human USP25 gene. B. SONG*; F. CAI; W. SONG. *The Univ. of British Columbia.*

1:00 D60 **405.13** ● Detecting and blocking the intracellular caspase cleavage of amyloid precursor protein as a biomarker of Alzheimer's disease - screening for inhibitors and validation of a new cleavage site-specific antibody that detects APP delta C31. K. S. POKSAY; J. CAMPAGNA; P. R. SPILMAN; D. KANE; R. LIU; J. ZIELINSKI; M. MULLENIX; D. J. SHEFFLER; D. E. BREDESEN*; N. D. P. COSFORD; V. JOHN. *Buck Inst. for Res. on Aging, Enzo Life Sci., Sanford Burnham Med. Res. Inst., UCLA.*

2:00 D61 **405.14** ▲ Modulation of amyloid precursor protein (APP) processing by growth associated protein 43 (GAP-43). K. TRACY; A. MILLER; E. SAVAGLIO; E. M. NORSTROM*. *Depaul Univ.*

3:00 D62 **405.15** Aberrant Subcellular Distribution of CREB/PCREB in Alzheimer's disease. P. MEMAR ARDESTANI*; M. SHAMLOO. *Stanford Univ.*

4:00 D63 **405.16** Characterizing G-quadruplex mediated regulation of the amyloid precursor protein expression. E. M. CRENSHAW*; B. LEUNG; N. SEBASTIAN; S. ANSALONI; P. BEVILACQUA; A. J. SAUNDERS. *Drexel Univ., Penn State Univ.*

1:00 D64 **405.17** Acute effects of amyloid beta 42 on the GUT enteric nervous System (ENS). H. RABE*; A. BRAUN; K. SCHÄFER. *Fh-Kaiserslautern.*

2:00 D65 **405.18** Endothelin-converting enzymes modulate intracellular Aβ accumulation and aggregation. J. PACHECO-QUINTO*; A. MESZAROS; E. ECKMAN. *Biomed. Res. Inst. of New Jersey.*

POSTER

406. APP and Abeta Pathology Models

Theme C: Disorders of the Nervous System

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

1:00 D66 **406.01** SHRSP - a valid model for mixed neurodegenerative and vascular pathologies? S. NIKLASS*; C. GARZ; C. Z. BUECHE; K. G. REYMANN; H. HEINZE; M. M. M. WILHELMUS; S. SCHREIBER. *Otto-von-Guericke Univ., German Ctr. for Neurodegenerative Dis. (DZNE), Leibniz-Institute for Neurobio. (LIN), VU Univ. Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 D67 **406.02** Impaired cholesterol homeostasis increases the secretion of Aβ peptide in FAD-associated presenilin mutant. Y. CHO*; O. KWON; Y. CHUN; S. CHUNG. *Sungkyunkwan Univ.*

3:00 D68 **406.03** Roles of insulin-like growth factor-II receptor and lysosomal enzymes in Alzheimer's disease pathology. Y. WANG*; D. WESTAWAY; S. KAR. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

4:00 D69 **406.04** ▲ Alzheimer's disease transgenic mice exhibit impairments in spatial discrimination that coincide with alterations in hippocampal neurogenesis. U. TOSI; M. S. PYFER; A. HAZRA; X. ZHANG; J. CHIN*. *Univ. of Pennsylvania, Thomas Jefferson Univ.*

1:00 D70 **406.05** The impact of long-term high-fat diet consumption, and diet reversal intervention, on inflammation, learning and memory, and behavior in an Alzheimer's mouse model. J. M. WALKER*; J. A. KENNARD; S. DIXIT; F. E. HARRISON. *Vanderbilt Univ.*

2:00 D71 **406.06** The effect of progranulin loss on an alzheimer's mouse model. C. VOLLERT*; K. NGO; H. POURZARGHAM; J. L. ERIKSEN. *Univ. of Houston.*

3:00 D72 **406.07** The role of copper deficiency and zinc in a mouse model of early onset Alzheimer's disease. S. N. HOWELL*; P. B. BOZZELLI; J. M. FLINN. *George Mason Univ.*

4:00 E1 **406.08** Modeling the co-morbidity of vascular dementia and amyloid pathology of Alzheimer's disease. E. M. WEEKMAN*; T. L. SUDDUTH; H. M. BROTHERS; K. BRAUN; D. M. WILCOCK. *Univ. of Kentucky.*

1:00 E2 **406.09** Accelerated impairment of learning and memory by presenilin 2 mutation in APP transgenic mouse model of Alzheimer's disease. Y. KIRINO*; Y. KISHIMOTO; A. FUKUTA; A. NAGAO; E. HIGASHIHARA. *Tokushima Bunri Univ.*

2:00 E3 **406.10** Nebula/DSCR1 ameliorates APP-induced learning and memory impairments in *Drosophila.* J. SHAW*; K. T. CHANG. *Zilkha Neurogenetic Inst., USC Neurosci. Grad. Program.*

3:00 E4 **406.11** Early amyloid deposition in the anterior olfactory nucleus correlates with specific mixture discrimination deficits in 5xFAD mice. D. K. MURPHEY*; D. KOYYAGUNTALA; B. ARENKIEL. *Baylor Col. of Medicine/ Jan and Dan Duncan Neurolog. Res. Inst., Duke Univ.*

4:00 E5 **406.12** Modulatory effects of prostacyclin in the mouse model of Alzheimer's dsease. J. ERIKSEN*; C. VOLLERT; M. SCHMITT; O. OHIA; S. MONTAZARI. *Univ. of Houston, Univ. of Houston.*

1:00 E6 **406.13** Cued and contextual fear learning in APP/PS1 mice. T. ENDRES*; G. HÖLZL; L. PSOTTA; E. EDELMANN; V. LESSMANN. *Otto-von-Guericke-University, Otto-von-Guericke Univ.*

2:00 E7 **406.14** Age and human Aβ-dependent effect of PS1 mutation in development of Alzheimer-like pathology: Studies in transgenic knock-in mice for Alzheimer's disease mutant Presenilin-1 (PS1(M146V)) and wild-type human APP (hAPPwt). H. S. ZANJANI*; K. KINUGAWA; M. DOULAZMI; M. P. MATTSON; J. MARIANI; C. ROVIRA. *UMR 8256, Univ. of P. & M. Curie and CNRS, Charles Foix Hosp., NIH/NIA.*

3:00 E8 **406.15** Voluntary exercise leads to preservation of spatial memory in the TgSwDI mouse model of cerebral microvascular amyloid without reducing Aβ. M. E. ANDERSON; M. OU-YANG; F. XU; A. KUMAR; G. SINGH; T. SHUB; B. J. ANDERSON; W. E. VAN NOSTRAND; J. K. ROBINSON*. *Stony Brook Univ., Stony Brook Univ., Stony Brook Univ.*

4:00 E9 **406.16** titration of biologically active amyloid-β seeds in a transgenic mice model of Alzheimer's disease. J. B. BRAVO-ALEGRIA*; R. MORALES; C. DURAN-ANIOTZ; C. SOTO. *Univ. of Texas Hlth. Sci. Ctr. At Houst, Univ. of Los Andes, Univ. of Chile.*

1:00 E10 **406.17** Antidepressant drug restores expression levels of M-type potassium channels (KCNQ2) in Alzheimer's disease animal model (Thy1-APP). J. DURAN*; M. ORTEGA; K. CORREA; E. ROSAS; N. CARREON; L. F. PACHECO; L. V. COLOM. *Univ. of Texas At Brownsville, Univ. of Texas Brownsville.*

2:00 E11 **406.18** Age-related changes in feeding behaviour, activity levels, hormones and metabolism in female 5xFAD mice. W. H. GENDRON*; S. PELLETIER; R. E. BROWN; Y. ANINI. *Dalhousie, Dalhousie.*

3:00 E12 **406.19** A mouse model with distinct features of the Alzheimer disease with psychosis phenotype. S. L. ERICKSON*; P. S. MURRAY; E. THIELS; P. PENZES; M. L. MACDONALD; M. D. IKONOMOVIC; N. A. YATES; R. A. SWEET. *Univ. of Pittsburgh, Univ. of Pittsburgh, Northwestern Univ., Northwestern Univ., Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, MIRECC/VAPHS.*

4:00 E13 **406.20** Genome-wide transcription and DNA methylation profiling in an APP mouse model of Alzheimer's disease. M. C. GUZMAN-KARLSSON*; Z. LI; J. J. DAY; E. D. ROBERSON; J. D. SWEATT. *Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham.*

1:00 E14 **406.21** Transgene expression in the neuropsin tTA driver line is not restricted to the entorhinal cortex. T. B. LEERGAARD; M. J. YETMAN; S. LILLEHAUG; J. G. BJAALIE; J. L. JANKOWSKY*. *Univ. of Oslo, Baylor Col. of Med.*

2:00 E15 **406.22** A novel target protects against APP-induced age-related neurodegeneration. J. T. PIERCE-SHIMOMURA*; L. L. SCOTT; S. IYER; G. ZUNIGA; J. SAHN. *Univ. Texas, Austin, Univ. of Texas at Austin.*

3:00 F1 **406.23** Nitric oxide, platelet and microvascular involvement in AD pathophysiology 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.*

4:00 F2 **406.24** Epigenetic gene regulation in Alzheimer's disease: Neuroprotection versus neuroplasticity. J. YOU*; B. F. CORBETT; X. ZHANG; A. HAZRA; J. CHIN. *Thomas Jefferson Univ.*

1:00 F3 **406.25** Amyloid-beta (Aβ)-induced depolarization and abnormal responses to leptin in hypothalamic neuropeptide Y (NPY) neurons. G. WANG*; M. ISHII; C. IADECOLA. *Weill Med. Col. Cornell Univ.*

2:00 F4 **406.26** Hypothalamic leptin signaling deficits underlie the metabolic dysfunction in mice overexpressing amyloid precursor protein. M. ISHII*; G. WANG; C. IADECOLA. *Weill Cornell Med. Col.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 F5 **406.27** Behavioral and histopathological analysis of Ames dwarf x Alzheimer's disease (APP/PS1) mice. K. L. PUIG*; S. G. RAKOCZY; H. M. BROWN-BORG; C. K. COMBS. *Univ. of North Dakota.*

4:00 F6 **406.28** Amyloid precursor protein localizes in pancreatic islets. J. KULAS*; C. K. COMBS. *Univ. of North Dakota.*

1:00 F7 **406.29** Amyloid precursor protein regulates microglial phenotype in a mouse model of Alzheimer's disease. G. D. MANOCHA*; A. M. FLODEN; K. RAUSCH; L. ROJANATHAMMANEE; K. R. PUIG; K. L. PUIG; C. K. COMBS. *Univ. North Dakota.*

POSTER

407. Amyloid Beta Aggregation and Toxicity

Theme C: Disorders of the Nervous System

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

1:00 F8 **407.01** Effects of physical exercise on cognitive function: endothelial nitric oxide synthase contributing to Aβ accumulation in spontaneous hypertensive rats. L. ZHANG; J. LUO; Z. PEI; R. A. ESPAÑA*; W. GAO; F. LI; X. HU. *Sun Yat-Sen Univ., Sun Yat-Sen Univ., Drexel Univ. Col. of Med., Sun Yat-Sen Univ.*

2:00 F9 **407.02** Characterization of amyloid beta oligomeric composition using matrix assisted laser desorption ionization mass spectrometry. J. S. WANG*; K. JURCIC; S. WHITEHEAD; K. K. C. YEUNG. *Western Univ., Western Univ., Western Univ.*

3:00 F10 **407.03** Evaluating the pathological and behavioural outcomes of amyloid beta oligomers in the rat. R. WONG*; D. F. CECHETTO; S. WHITEHEAD. *Western Univ., Western Univ.*

4:00 F11 **407.04** The interaction between ZnT3 and Amyloid-β in Alzheimer's disease. S. M. HANCOCK*; D. I. FINKELSTEIN; A. I. BUSH; P. A. ADLARD. *The Florey Inst. of Neurosci. and Mental He.*

1:00 F12 **407.05** N-truncated and pyroglutamate-modified (pGlu) Aβ: On the molecular pathway of formation in Alzheimer's disease. S. SCHILLING*; D. SCHLENZIG; H. CYNIS; H. DEMUTH. *Fraunhofer IZI-MWT.*

2:00 G1 **407.06** Interaction of Alzheimer's β-amyloid peptides with cholesterol: Mechanistic insights into amyloid pore formation and inhibition by bexarotene. C. DI SCALA*; H. CHAHINIAN; N. GARMY; N. YAHI; J. FANTINI. *Aix-Marseille Univ.*

3:00 G2 **407.07** ● Development of an *ex vivo* assay to measure solubility characteristics of plaque associated Aβ from human alzheimer disease (AD) frontal cortex. J. A. TZAFERIS*; H. B. OLUOCH; M. M. RACKE; J. T. HOLE; F. LIU; R. B. DEMATTOS. *Eli Lilly & Co., Eli Lilly and Co.*

4:00 G3 **407.08** Modulated zinc levels may preserve insulin responsiveness in CNS synapses of non demented individuals who resist Alzheimer's disease neuropathology. M. M. COMEROTA*; R. WOLTJER; G. TAGLIALATELA. *Univ. of Texas Med. Br., Oregon Hlth. & Sci. Univ., Univ. of Texas Med. Br.*

1:00 G4 **407.09** The inhibitory effect of Hsp60 on amyloid beta aggregation: A biophysical study. C. MARINO*; D. SPIGOLON; S. VILASI; R. PASSANTINO; M. R. MANGIONE; F. CAPPELLO; D. BULONE; G. TAGLIALATELA; P. SAN BIAGIO. *Univ. of Palermo, Bionec, University Of Texas Medical Branch, Inst. of Biophysics, Natl. Res. Council, Inst. of Biophysics, Natl. Res. Council, Euro-Mediterranean Inst. of Sci. and Technology, Palermo, Italy, University Of Texas Medical Branch.*

2:00 G5 **407.10** Monitoring the early phase of beta-amyloid peptide aggregation using targeted and quantitative mass spectrometry. A. W. SCHMID*; N. RUDINSKIY; D. DEMURTAS; M. MONIATTE. *EPFL, Harvard Med. Sch.*

3:00 G6 **407.11** ● Oligomeric Aβ-induced neuronal toxicity is attenuated by ADDL-specific antibodies *in vivo.* X. WANG*; M. ARBEL-ORNATH; J. JERECIC; G. A. KRAFFT; B. J. BACSKAI. *Massachusetts Gen. Hosp., Acumen Pharmaceuticals, Inc.*

4:00 G7 **407.12** The injection of the beta amyloid peptide 25-35 in magnocelular nucleus decreases learning and spatial memory associated with the inflammatory process and decrease signaling Trk-A receptor. A. PATRICIO*; I. MARTÍNEZ; I. ESPINOZA; A. SÁNCHEZ-GONZÁLEZ; E. RÁMIREZ; A. CANDALIJA; J. AGUILERA; I. D. LIMÓN. *Benemerita Univ. Autonoma De Puebla, Benemerita Univ. Autonoma De Puebla, Biochem. and Mol. Biology, Univ. Autónoma de Barcelona.*

1:00 G8 **407.13** Effects of Interleukin-1 and β-Amyloid on endosomal and endocytic function in neurons. A. J. CARLOS*; C. W. COTMAN. *Univ. of California Irvine.*

2:00 G9 **407.14** A therapeutic miRNA for brain disorders. K. C. SONNTAG*; W. KIM; Y. LEE; D. MCPHIE; K. KIM; B. COHEN. *McLean Hospital/Harvard Med. Sch.*

POSTER

408. Alzheimer's disease: APOE and Cholesterol

Theme C: Disorders of the Nervous System

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

1:00 G10 **408.01** Impact of ApoE polymorphisms on amyloid-beta oligomerization and associated cognitive decline. E. L. CASTRANIO*; N. F. FITZ; A. Y. CARTER; I. LEFTEROV; R. KOLDAMOVA. *Univ. of Pittsburgh.*

2:00 G11 **408.02** Gene delivery of apoE2 reduces brain amyloid burden in apoE4-target replacement APP.PS1 transgenic mice. L. ZHAO*; A. J. GOTTESDIENER; M. PARMAR; M. LI; S. M. KAMINSKY; M. J. CHIUCHIOLO; D. SONDHI; D. M. HOLTZMAN; R. G. CRYSTAL; S. M. PAUL. *Weill Cornell Med. Col., Weill Cornell Med. Col., Washington Univ. in St. Louis, Weill Cornell Med. Col., Washington Univ. in St. Louis.*

3:00 G12 **408.03** ApoE4 and ApoE4 domain interaction induce gender vulnerability on progression of Alzheimer's disease in mouse models. X. HOU*; S. O. ADEOSUN; X. ZHAO; B. R. BARLOW; B. ZHENG; M. J. BRENTS; Q. ZHANG; J. WANG. *Univ. of MS Med. Ctr., Univ. of MS Med. Ctr., Heilongjiang Chinese Med. Univ., ShanXi Med. Univ., Univ. of MS Med. Ctr., Univ. of MS Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 H1 **408.04** ● Identification of an astrocytoma-enriched human liver X receptor alpha (LXRα) isoform. M. BEYNA*; H. S. XI; R. Y. YANG; E. K. SYLVAIN; N. POZDNYAKOV; W. L. BLAKE; G. RAMASWAMY. *Pfizer Inc., Pfizer Inc., Pfizer Inc.*

1:00 H2 **408.05** Mitochondrial peptide accumulation in cortical cytosolic compartments of APOE4(+) young adults. M. PERKINS*; D. SHONEBARGER; L. HENDERSON; J. VALLA. *Midwestern Univ., Arizona Alzheimer's Consortium.*

2:00 H3 **408.06** Apolipoprotein E isoforms differentially regulate blood-brain barrier breakdown in Alzheimer's disease. M. R. HALLIDAY*; Q. MA; Z. ZHAO; C. A. MILLER; B. V. ZLOKOVIC. *USC.*

3:00 H4 **408.07** Inhibition of Inducible Degrader of LDLR (IDOL) markedly increases extracellular Aβ clearance by astrocytes. J. KIM*; D. CHUNG; H. YOON; J. KIM. *Mayo Clin. Birdsall Rm216, Mayo Clin.*

4:00 H5 **408.08** ApoE dependent epigenetic regulation in brain: ApoE3 exports and ApoE4 imports HDAC4 and 6 to the nucleus. A. SEN*; D. L. ALKON. *Blanchette Rockefeller Neurosci. Inst.*

1:00 H6 **408.09** Apoplipoprotein E modulates activation of the extracellular signal-regulated kinase in response to Amyloid pathology. Q. LI*; A. LUSSIER; E. J. WEEBER. *Univ. of South Florida.*

2:00 H7 **408.10** ● IDOL inhibitors offer the potential for the treatment of Alzheimer's disease. S. KUMAR; T. R. BUTT*; M. EDDINS; J. WU; J. LAROCQUE; S. AGARWAL; J. MARBLESTONE; M. KODRASOV; B. NICHOLSON. *Progenra Inc.*

3:00 H8 **408.11** Presenilin mutations influence processing and trafficking of the ApoE receptor apoEr2. W. WANG; S. W. BARGER*. *Univ. of Arkansas for Med. Sci., Univ. Arkansas Med. Sci., Central Arkansas Veterans Healthcare Syst.*

4:00 H9 **408.12** The apolipoprotein E4 (apoE-ε4) allele is associated with neurovascular dysfunction and predisposes to white matter injury and cognitive impairment in mice. K. KOIZUMI*; L. PARK; L. ZHAO; W. LUO; S. PAUL; C. IADECOLA. *Weill Cornell Med. Col., Appel Alzheimer's Dis. Res. Inst., Weill Cornell Med. Col., New.*

1:00 H10 **408.13** Influence of ApoE on LRP1 function. B. SHACKLETON*; F. CRAWFORD; C. BACHMEIER. *Roskamp Inst.*

2:00 H11 **408.14** High-throughput screening for small molecule modulators of ApoE in primary human astrocytes. G. M. FINAN*; R. B. REALUBIT; C. KARAN; T. KIM. *Columbia Univ., Columbia Univ., Columbia Univ.*

3:00 H12 **408.15** APOE-associated biomarkers and their modulation by ibuprofen *in vivo.* A. M. DIBATTISTA*; S. B. DUMANIS; M. J. LADU; G. W. REBECK. *Georgetown Univ., Max Delbrück Ctr. for Mol. Med., Univ. of Illinois at Chicago.*

4:00 I1 **408.16** Young adult carriers of the Alzheimers disease risk factor APOE4 show broad dysregulation in cortical energy metabolism pathways. J. VALLA*; M. PERKINS; D. SHONEBARGER; P. PANGLE; L. BALLINA; J. VALLEJO; G. JENTARRA. *Midwestern Univ., Arizona Alzheimer's Consortium, Midwestern Univ., Midwestern Univ.*

1:00 I2 **408.17** Effects of global deletion of ApoA1 and ApoE on amyloid pathology and cognitive decline in a mouse model. N. F. FITZ*; A. Y. CARTER; E. L. CASTRANIO; I. LEFTEROV; R. KOLDAMOVA. *Univ. of Pittsburgh.*

2:00 I3 **408.18** Effects of LXR activation on dynamics within *in vitro* networks of neurons using a multielectrode array (MEA) system. G. A. RODRIGUEZ*; X. CHEN; G. W. REBECK; R. DZAKPASU. *Georgetown Univ. Med. Ctr., Georgetown Univ. Med. Ctr., Georgetown Univ., Georgetown Univ. Med. Ctr.*

3:00 I4 **408.19** Human apolipoprotein E (APOE) isoforms differentially modulate glucose and amyloid metabolic pathways in female brain: Implications for Alzheimer's disease prevention and early but not late intervention. J. T. KEENEY*; L. ZHAO. *Univ. of Kansas.*

POSTER

409. Parkinson's disease Models II

Theme C: Disorders of the Nervous System

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

1:00 I5 **409.01** Long term tolerance to human neural mesencephalic precursor transplant in a parkinson´s disease model. C. A. SALAZAR-ALDRETE*; H. GONZALEZ-SANCHEZ; V. RODRIGUEZ; C. CASTILLO. *Univ. Autonoma De San Luis Potosi.Bioquímica, Univ. Nacional Autónoma de México, Univ. Autonoma De San Luis Potosi.*

2:00 I6 **409.02** An *in vitro* experimental model of Parkinson's disease: Effects of rotenone, neuroprotection by antioxidants and mechanisms of cell death. A. J. FILHO*; D. C. F. LOPES; C. S. MATSUBARA; M. N. SILVA; E. S. YAMADA; C. SCAVONE; C. D. MUNHOZ; E. T. COSTA. *Evandro Chagas Inst., Univ. da Amazônia, Univ. de São Paulo, Univ. Federal do Pará.*

3:00 I7 **409.03** Longitudinal PET assessment of metabolic changes associated with slow dopaminergic depletion in the MPTP primate model of Parkinson Disease. F. MOLINET-DRONDA*; J. BLESA; C. JURI; M. COLLANTES; E. IGLESIAS; I. PEÑUELAS; J. A. OBESO. *CIMA - Univ. of Navarra, CIMA - Univ. of Navarra, CIBERNED, Columbia Univ., Pontificia Univ. Católica de Chile, Clínica Univ. de Navarra, Clínica Univ. de Navarra.*

4:00 I8 **409.04** Mesolimbic system in Parkinson's disease: Degeneration of the medial forebrain bundle. S. SRITHARAN; E. A. PELZER; C. MELZER; R. GRAF*; L. TIMMERMANN; M. TITTGEMEYER. *MPI Neurolog. Res., Univ. Hosp. of Cologne.*

1:00 I9 **409.05** Characteristics of tremor related burst activity in the ventrolateral thalamus in patients with Parkinsonian rest tremor. P. ZHUANG*; M. HALLETT; T. LIU; Y. ZHANG; J. LI; Y. LI. *Xuanwu Hosp, Capital Med. Uni, NINDS, NIH.*

2:00 I10 **409.06** ● iPSC based model systems to study Parkinson's disease: Understanding the biology of PD and Drug screening. C. M. REVANKAR; B. J. HAMMER; K. BI; S. B. HERMANSON; D. V. THOMPSON; M. S. PIEKARCZYK; C. S. LEBAKKEN; L. J. REICHLING; T. SAMPSELL-BARRON; B. SCHUELE; J. LANGSTON; D. R. PIPER*; K. W. VOGEL. *Thermo Fisher, The Parkinson's Inst., Thermo Fisher Scientific.*

3:00 I11 **409.07** Intrastriatal alpha synuclein preformed fibrils in macaque monkeys: neuronal transport, long-term imaging and neuropathologic changes. J. H. KORDOWER*; Y. CHU; S. MULLER; A. TAVARES; O. BARRET; D. ALAGILLE; J. SEIBYL; G. TAMAGNAN; K. MAREK; K. C. LUK; J. Q. TROJANOWSKI; V. M. Y. LEE. *Rush Univ. Med. Ctr., Mol. NeuroImaging, LLC, Univ. Pennsylvania Sch. Med.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 I12 **409.08** Rescue of the pathological phenotype in α-synuclein(1-120) transgenic mice. L. CALO*; M. WEGRZYNOWICZ; O. ANICHTCHIK; J. DALLY; J. XIA; B. SCHNEIDER; M. G. SPILLANTINI. *Univ. of Cambridge, Univ. of Plymouth, Ecole Polytechnique Fédérale de Lausanne.*

1:00 J1 **409.09** Dopamine-mediated oxidation of methionine 127 in alpha-synuclein causes cytotoxicity and oligomerization of alpha-synuclein. K. NAKASO*; N. TAJIMA; Y. HORIKOSHI; S. ITO; T. MATSURA. *Tottori Univ, Fac. of Medicine, Div. Med. Biochem., Tottori Univ, Fac. of Medicine, Div. Neurol.*

2:00 J2 **409.10** Effect of oxidative stress on the glutathione system and the neuromelanin formation in substantia nigra of rats exposed to low doses of ozone. E. D. FERREIRA*; S. RIVAS-ARANCIBIA. *Univ. Nacional Autónoma de México.*

3:00 J3 **409.11** Characterization of Parkin expression in aged rhesus monkeys. W. YANG*; Z. TU; S. LI; X. LI. *IGDB, Chinese Acad. of Sci., Emory Univ. Sch. of Med.*

4:00 J4 **409.12** Increased glutamate release in the dorsal striatum of a mitochondrial mouse model of Parkinson's disease. H. A. BOGER*; A. FARRAND; R. GREGORY; K. HELKE. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

1:00 J5 **409.13** Dynamics of neurodegeneration in a slow progressive MPTP marmoset model for idiopathic Parkinson's disease. S. TOLBOOM*; R. E. VAN KESTEREN; S. O. HOFMAN; J. A. M. WUBBEN; A. B. SMIT; I. H. C. H. PHILIPPENS. *VU Amsterdam, BPRC.*

2:00 J6 **409.14** Effect of aging on dopaminergic neurons, microglia and open field behavioral following mptp in c57bl/6j, swiss-webster and gstpi-null mice y. jiao1*, y. dou1, r. smeyne1 1developmental neurobiology, st. jude children's research hospital, memphis, usa. Y. JIAO*. *St.Jude Children's Res. Hosp.*

3:00 J7 **409.15** Dendritic loss in the prefrontal cortex of MPTP-treated monkeys. G. S. WALHA*; R. F. MERVIS; S. K. FOLEY; A. YAZBACK; J. HERNANDEZ; J. D. ELSWORTH. *The Grad. School, Univ. of South Florida M, Neurostructural Res. Labs, Univ. of South Florida Morsani Sch. of Medicine, Ctr. of Excellence for Aging and Brain Repair, Univ. of South Florida, Univ. of South Florida, Yale University, Sch. of Med.*

4:00 J8 **409.16** ▲ The utilization of Engrailed 1 in developing neurons for cell replacement therapy in Parkinson's disease. S. PARKER; R. WELCHKO; J. ROSSIGNOL; M. LU; G. L. DUNBAR*. *Central Michigan Univ., Central Michigan Univ., Field Neurosciences Inst. Lab. for Restorative Neurol., Central Michigan Univ.*

1:00 J9 **409.17** Glucocerebrosidase deficiency and glycolipid accumulation occurs in both normal aging and sporadic Parkinson's disease. E. N. MANGANO*; G. A. SMITH; E. PARK; H. CAO; E. BROWN; J. A. BEAGAN; Z. E. SCHNEIDER-LYNCH; D. A. AHMADI; P. J. HALLETT; O. ISACSON. *McLean Hosp. /Harvard Med. Sch., Shire.*

2:00 J10 **409.18** Quantification of postural stability in patients with Parkinson's disease using mobile technology. S. J. OZINGA*; A. G. MACHADO; A. B. ROSENFELDT; J. L. ALBERTS. *Cleveland Clin.*

3:00 J11 **409.19** Quantifying the short-term effects of Subthalamic deep brain stimulation surgery on bradykinesia in Parkinson's disease patients. M. DELROBAEI*; G. GILMORE; K. OGNJANOVIC; F. RAHIMI; S. XIAN; S. TRAN; K. MCISAAC; M. JOG. *Lawson Hlth. Res. Inst., Western Univ.*

POSTER

410. Parkinson's disease: Genetic Models

Theme C: Disorders of the Nervous System

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

1:00 J12 **410.01** Persistent longitudinal alterations of neurotransmission in LRRK2 G2019S Knock-In mice. D. A. BECCANO-KELLY*; M. VOLTA; E. MITCHELL; D. SMITH; I. TATARNIKOV; S. BERGERON; K. CO; L. MUNSIE; H. L. MELROSE; M. J. FARRER; A. J. MILNERWOOD. *Univ. of British Columbia, Mayo Clin. Jacksonville, Univ. of British Columbia.*

2:00 K1 **410.02** Exogenous oligomeric alpha-synuclein in LRRK2 transgenic animals. M. VOLTA*; S. BERGERON; E. MITCHELL; L. MUNSIE; D. BECCANO-KELLY; A. MILNERWOOD; M. FARRER. *Univ. of British Columbia.*

3:00 K2 **410.03** Drug screening for LRRK2 Parkinsonism: using the *Drosophila* dendritic arborization neurons as a model system. C. LIN*; H. LIN; R. WU. *Dept. of Neurology, Natl. Taiwan Universit, Dept. of Neurology, Natl. Taiwan Univ. Hosp.*

4:00 K3 **410.04** Genetic and pharmacological evidence that G2019S LRRK2 confers hyperkinetic phenotype and prevents motor decline associated with aging. F. LONGO*; I. RUSSO; D. SHIMSHEK; E. GREGGIO; M. MORARI. *Univ. Degli Studi Di Ferrara, Dept. of Biology, Univ. of Padova, Dept. of Autoimmunity/Transplantation/Inflammation-Neuroinflammation-Novartis Inst. for BioMedical Research, Novartis Pharma AG, Dept. of Med. Sciences, Section of Pharmacology, and Natl. Inst. of Neuroscience, Univ. of Ferrara.*

1:00 K4 **410.05** The Parkinsonian LRRK2*R1441G mutation modulates LPS-induced immune response in the brain and periphery. E. A. KOZINA*; Y. JIAO; Y. DOU; R. J. SMEYNE. *St. Jude Children's Res. Hosp.*

2:00 K5 **410.06** ● Merck LRRK2 inhibitor-2 (MLI-2), a potent, selective and centrally active tool compound suitable for exploring the therapeutic potential and safety of LRRK2 kinase inhibition. M. J. FELL*; C. MIRESCU; X. ZHOU; Y. LIN; Z. YIN; B. CHEEWATRAKOOLPONG; M. SMITH; F. POULET; C. MARKGRAF; L. HYDE; M. ELLIS; D. DEMONG; M. MILLER; E. PARKER; M. KENNEDY; J. MORROW. *Merck Neurosci. Early Discovery, Merck In Vivo Pharmacology-Neuroscience, Merck Cell. Pharmacol., Merck Pathology and Cell. Toxicology, Merck Discovery Chem., Merck Lead Optimization Chem., Merck Pharmacol., Merck Neurosci. Late Discovery.*

3:00 K6 **410.07** Characterization of mitoNEET knock-out mice as Parkinson's disease model. W. J. GELDENHUYS*; L. LIN; D. SPEICHER; J. YUN; R. T. CARROLL. *Northeast Ohio Med. Univ., Northeast Ohio Med. Univ.*

4:00 K7 **410.08** Transmission of human Lewy body disease prions to mice. D. R. JONES*; D. MARION; M. DETURE; A. BAINE; M. E. MURRAY; D. W. DICKSON; P. J. MCLEAN. *Mayo Clin., Mayo Grad. Sch.*

1:00 K8 **410.09** PARK14 Ex2(KO) mice as a novel model for age-dependent Parkinson's disease. Q. ZHOU; A. YEN; H. ASAI; T. IKEZU; B. WOLOZIN; V. M. BOLOTINA*. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 K9 **410.10** LRRK2-G2019S expression in the brains of BAC transgenic rats resembles the distribution of LRRK2 in humans and non-human primates. J. BLACKBURN*; R. COWELL; J. P. L. DAHER; M. S. MOEHLE; K. M. HINKLE; H. L. MELROSE; D. G. STANDAERT; A. B. WEST; L. A. VOLPICELLI-DALEY. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Mayo Clin.*

3:00 L1 **410.11** Transgenic mice overexpressing familial Parkinson's disease mutations in protein translation factor eIF4G1 exhibit selective neurodegeneration of dopamine neurons. S. S. KARUPPAGOUNDER*; Y. LEE; S. M. EACKER; I. MARTIN; J. KIM; H. JIA; S. BRAHMACHARI; M. KUMAR; X. MAO; S. ANDRABI; D. SWING; S. KANG; H. JIANG; L. TESSAROLLO; T. DAWSON; V. DAWSON. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Adrienne Helis Malvin Med. Res. Fndn., Johns Hopkins Univ. Sch. of Med., Natl. Cancer Inst., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

4:00 L2 **410.12** Parkin modulation by inflammation and mitochondrial impairment leading to caspase- and calpain-dependent cleavage: cAMP neuroprotection and relevance to Parkinson disease. C. CORWIN*; H. WANG; P. ROCKWELL; M. FIGUEIREDO-PEREIRA. *Hunter College, CUNY, Hunter College, CUNY.*

1:00 L3 **410.13** PKCgamma knockout animal is a potential model for Parkinsonian syndrome: The role of betaPIX phosphorylation at Ser340 and Ser583 in dopamine release. T. SHIRAFUJI*; T. UEYAMA; K. YOSHINO; N. ADACHI; H. TAKAHASHI; N. HIRAMATSU; Y. AGO; T. MATSUDA; T. TODA; N. SAKAI; N. SAITO. *Hiroshima Univ., Lab. of Mol. Pharmacology, Biosignal Res. Center, Kobe Univ., Lab. of Medicinal Pharmacology, Grad. Sch. of Pharmaceut. Sciences, Osaka Univ., Div. of Neurology/ Molecular Brain Science, Kobe Univ. Grad. Sch. of Med.*

2:00 L4 **410.14** Effect of buspirone on the subthalamic nucleus on an animal model of parkinson´s disease: An electrophysiological study. A. SAGARDUY; J. LLORENTE; C. MIGUELEZ; T. MORERA-HERRERAS; A. ARISTIETA; J. RUIZ-ORTEGA*; L. UGEDO. *Dept Pharmacology. Fac. of Medicine.University of the Basque Country, Dpt. Pharmacology. Pharm. Sch.*

3:00 L5 **410.15** Investigating the dual effect of dopamine transporter over-expression and vesicular monoamine transporter 2 under-expression in genetically modified mice. S. T. MASOUD*; A. J. RAMSEY; G. W. MILLER; A. SALAHPOUR. *Univ. of Toronto, Emory Univ.*

4:00 L6 **410.16** Effects of overexpressed transcription factors in the locus coeruleus on dopamine phenotypes in the brain of Parkinson's mouse models. M. ZHU*; K. CUI; F. YANG; Y. FAN; D. PETERSON; B. CUMMINS; R. BROWN. *East Tennessee State Universit.*

1:00 L7 **410.17** The effect of chronic manganese administration in Atp13a2-deficient mice. S. S. KARKARE*; N. SANTIAGO; S. PAMPHILE; O. R. EKHATOR; A. M. LEHMKUHL; A. K. CLIPPINGER; S. LINN; B. LIOU; Y. SUN; G. E. SHULL; P. SCHULTHEIS; S. M. FLEMING. *Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Cincinnati, Northern Kentucky Univ., Cincinnati Children's Hosp. Med. Ctr., Univ. of Cincinnati.*

POSTER

411. Parkinson's disease: Alpha-Synuclein

Theme C: Disorders of the Nervous System

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

1:00 L8 **411.01** ● Novel mouse models with Parkinson's disease-related autophagy deficits. M. SASNER*; T. N. MARTINEZ; K. D. DAVE; M. J. FARRER; W. D. HIRST; S. CLARK; M. A. FRASIER. *The Jackson Lab., The Michael J. Fox Fndn. for Parkinson's Res., Univ. of British Columbia, Pfizer, Amicus Therapeut.*

2:00 L9 **411.02** Characterization, comparison, and cross-validation of *in vivo* alpha-synuclein models of parkinsonism. T. N. MARTINEZ*; M. SASNER; M. T. HERBERTH; R. C. SWITZER, III; S. O. AHMAD; K. C. LUK; S. RAMBOZ; A. E. KUDWA; D. KIRIK; J. FLORES; R. J. MANDEL; M. P. GETZ; R. BROWN; R. J. SAMULSKI; J. C. GRIEGER; D. DISMUKE; S. S. DAS; M. A. FRASIER; K. D. DAVE. *The Michael J. Fox Fndn. For Parkinson's Res., The Jackson Lab., WIL Res., NeuroScience Associates, St. Louis Univ., Univ. of Pennsylvania Perelman Sch. of Med., PsychoGenics, Inc., Lund Univ., Univ. of Florida, Univ. of North Carolina at Chapel Hill, Univ. of Dundee.*

3:00 L10 **411.03** Characterization of a novel mouse model designed to study the mechanistic link between PD-associated GBA mutations and α-synucleinopathies. D. KIM*; S. KWON; S. CHOI; V. L. DAWSON; T. M. DAWSON; H. S. KO. *Neuroregeneration and Stem Cell Programs, ICE, The Johns Hopkins Univ. Sch. of Med., Diana Helis Henry Med. Res. Fndn., The Johns Hopkins Univ., The Johns Hopkins Univ. Sch. of Med., The Johns Hopkins Univ. Sch. of Med., Adrienne Helis Malvin Med. Res. Fndn., The Johns Hopkins Univ. Sch. of Med.*

4:00 L11 **411.04** ● Biophysical characterization of the interaction of NPT200-11 with alpha-synuclein. B. SZOKE*; W. WRASIDLO; E. STOCKING; I. TSIGELNY; T. C. SCHWARTZ; R. KONRAT; A. D. PAULINO; D. L. PRICE; S. WINTER; E. MASLIAH; D. BONHAUS; D. MEIER. *Neuropore, UCSD, Univ. of Vienna, EVER Neuro Pharma.*

1:00 L12 **411.05** ● Live imaging of alpha-synuclein aggregates in the retina of alpha-synuclein-GFP transgenic mice as a marker of the alpha-synuclein pathology in the brain. E. M. ROCKENSTEIN*; D. L. PRICE; D. BONHAUS; M. MANTE; J. D. LINDSEY; E. MASLIAH. *Univ. Calif San Diego, Neuropore Therapies Inc, Univ. Calif San Diego, Univ. Calif San Diego.*

2:00 M1 **411.06** ● The novel alpha-synuclein stabilizer NPT200-11 improves behavior, neuropathology, and Biochemistry in the murine thy1-ASYN transgenic model of Parkinson's disease. M. A. KOIKE*; D. L. PRICE; B. M. WHITE; E. ROCKENSTEIN; W. WRASIDLO; I. TSIGELNY; D. MEIER; E. MASLIAH; D. W. BONHAUS. *Neuropore Therapies, UCSD, EVER Neuro Pharma.*

3:00 M2 **411.07** ● The novel alpha-synuclein stabilizer NPT200-11 reduces retinal deposits of ASYN-eGFP in a transgenic mouse model of Parkinson's disease/Lewy body disease. D. L. PRICE*; E. M. ROCKENSTEIN; M. MANTE; W. WRASIDLO; E. MASLIAH; D. W. BONHAUS; D. H. MEIER. *Neuropore Therapies, Inc., UCSD, EVER Neuro Pharma.*

4:00 M3 **411.08** Role of lipid peroxides derived from PUFA in the conformational change of alpha-synuclein and cell death in Parkinson disease. W. MARUYAMA*; M. NAGAI-SHAMOTO; M. NAOI; S. HISAKA; T. OSAWA; M. MINAMIYAMA; N. MOTOYAMA. *Nat'L Ctr. Geriatric. Gerontol., Nat'L Ctr. Geriatric. Gerontol., Aichi Gakuin Univ., Meijo Univ.*

1:00 M4 **411.09** Triggering mutant (a30p) alpha-synucleinopathy in mice. S. NUBER*; N. CASADEI; M. DIEPENBROEK; D. TADROS; A. POEHLER; B. ETTLE; J. KLUCKEN; J. WINKLER; O. RIESS; E. MASLIAH. *Dept. of Neurosciences, Univ. of California, San Diego, Inst. of Med. Genet. and Applied Genomics, Dept. of Mol. Neurol., Dept. of Pathology, Univ. of California San Diego.*

2:00 M5 **411.10** FABP3 promotes α-synuclein oligomerization in the dopaminergic neurons. K. FUKUNAGA; N. SHIODA; M. MORIOKA*; Y. OWADA. *Tohoku Univ. Grad Sch. Pharm Sci., Kurume Med. Sch., Yamaguchi Univ. Grad. Sch. Med.*

3:00 M6 **411.11** ● Characterization of the cellular uptake of α-synuclein oligomer/protofibril selective antibodies. M. INGELSSON*; G. GUSTAFSSON; F. ERIKSSON; E. NORDSTRÖM; C. MÖLLER; L. LANNFELT; J. BERGSTRÖM. *Uppsala Univ., BioArctic Neurosci. AB.*

4:00 M7 **411.12** ▲ Searching for a Lewy body in a mutated α-Synuclein (A30P) transgenic marmoset. R. KOBAYASHI*; C. HARA-MIYAUCHI; F. OZAWA; J. TAKAHASHI-FUJIGASAKI; J. OKAHARA; E. SASAKI; H. J. OKANO; H. OKANO. *Keio Univ. Sch. of Med., Jikei Univ. Sch. of Med., Jikei Univ. Sch. of Med., Central Inst. for Exptl. Animals.*

1:00 M8 **411.13** ▲ A53T mutation α-synuclein over-expression in rat brain show more toxic than wild-type via AAV injection. Y. DENG*; J. LU; H. QING; H. MA; R. WANG. *Beijing Inst. of Technol., Beijing Inst. of Technol.*

2:00 M9 **411.14** Both soluble and insoluble α-synuclein species are capable of inducing pathology in the mouse model of α-synucleinopathy transmission. J. BARNES*; J. MEINTS; H. A. MARTELL-MARTINEZ; M. K. LEE. *Univ. of Minnesota.*

3:00 M10 **411.15** The effect of dietary ketosis on mitochondrial function and alpha-synuclein accumulation in alpha-synuclein overexpressing mice. A. M. LEHMKUHL*; M. J. IRWIN; J. D. PANDYA; S. S. KARKARE; B. LIOU; R. KRIKORIAN; P. G. SULLIVAN; Y. SUN; S. M. FLEMING. *Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Kentucky, Cincinnati Children's Hosp. & Med. Ctr., Univ. of Cincinnati, Univ. of Cincinnati.*

4:00 M11 **411.16** Alpha-synucleinopathy in Transgenic Mouse Model is associated with impaired autophagy and lysosome function. R. KARIM*; M. K. LEE. *Univ. of Minnesota, Univ. of Minnesota.*

1:00 M12 **411.17** Characterization of an α-synuclein rodent model of Parkinson's disease. K. ALBERT*; M. H. VOUTILAINEN; B. K. HARVEY; S. AHOLA; R. TUOMINEN; M. AIRAVAARA; M. SAARMA. *Univ. of Helsinki, Univ. of Helsinki, Natl. Inst. on Drug Abuse.*

2:00 N1 **411.18** Behavioral, gastro-intestinal and histopathological findings in A53T α-synuclein mouse model of Parkinson's disease after LPS exposure. J. OKSMAN; C. BUENSUCESO; M. CERRADA-GIMENEZ; A. J. NURMI*; T. HUHTALA; J. HARRIS; U. HERZBERG. *Charles River Discovery Res. Services, Celgene Cell. Therapeut.*

3:00 N2 **411.19** Tyrosine kinase inhibition regulates early systemic immune changes and modulates the neuroimmune response in α-Synucleinopathy. M. HEBRON*; I. LONSKAYA; S. SELBY; C. MOUSSA; F. PAGAN. *Georgetown Univ.*

4:00 N3 **411.20** Alterations in stimulation-evoked dopamine release and associated behaviors in mice lacking GSTpi and transgenic mice carrying the A53T alpha-synuclein mutation. D. B. LESTER*; K. J. SAMPLE; R. J. SMEYNE. *St Jude Children's Res. Hosp.*

1:00 N4 **411.21** Transcriptional regulation by nicotine or α-synuclein in dopaminergic neurons assessed by few-cell and single-cell RNA-Seq. B. M. HENLEY*; B. A. WILLIAMS; R. SRINIVASAN; B. N. COHEN; C. XIAO; E. D. W. MACKEY; F. RICHTER; P. DESHPANDE; S. MCKINNEY; M. CHESSELET; B. J. WOLD; H. A. LESTER. *Caltech, Caltech, UCLA.*

2:00 N5 **411.22** Evaluation of the effects of aging in an induced alpha-synucleopathy rat model. I. M. SANDOVAL; K. C. LUK; S. CELANO; N. L. MARCKINI; B. F. DALEY; J. Q. TROJANOWSKI; V. M. LEE; K. L. PAUMIER; T. J. COLLIER*. *Michigan State Univ. CHM, Univ. of Pennsylvania Sch. of Med.*

3:00 N6 **411.23** ▲ Glia, glutamate receptors and oligomeric alpha-synuclein. E. DAVIS*; K. CRADDOCK; K. CONANT; K. MAGUIRE-ZEISS. *Georgetown Univ. Med. Ctr.*

POSTER

412. Parkinson's disease: Clinical Therapies

Theme C: Disorders of the Nervous System

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

1:00 N7 **412.01** Pallidal deep brain stimulation in cortical-cortical and cortical-subcortical structures in the behaving 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine nonhuman primate hemi-Parkinson's disease model. C. M. HENDRIX*; A. MURALIDHARAN; K. BAKER; J. VITEK. *Univ. of Minnesota.*

2:00 N8 **412.02** First evidence of neural mechanisms of Hebbian changes in white matter tracts induced by long-term deep brain stimulation. T. J. VAN HARTEVELT*; J. CABRAL; A. MØLLER; J. J. FITZGERALD; A. L. GREEN; T. Z. AZIZ; G. DECO; M. L. KRINGELBACH. *Univ. of Oxford, Aarhus Univ., Univ. Pompeu Fabra, John Radcliffe Hosp., Univ. Pompeu Fabra.*

3:00 N9 **412.03** ● Randomized burst patterns of stimulation produce long-lasting, dose-dependent improvement in bradykinesia in the parkinsonian non-human primate. J. WANG*; A. MURALIDHARAN; L. VENKATESAN; C. VETRUBA; J. VITEK; K. BAKER. *Univ. of Minnesota, St. Jude Med.*

4:00 N10 **412.04** Developing closed-loop control of deep brain stimulation using oscillations in local field potentials. L. A. JOHNSON*; E. PARK; C. M. HENDRIX; K. B. BAKER; J. L. VITEK. *Univ. of Minnesota, Hanyang Univ.*

1:00 N11 **412.05** Changes in the phase-amplitude coupling of high-frequency oscillations as a biomarker of parkinsonian severity. E. M. BELLO*; A. T. CONNOLLY; K. B. BAKER; T. I. NETOFF; M. D. JOHNSON; J. L. VITEK. *Univ. of Minnesota, Univ. of Minnesota.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 N12 **412.06** Effect of STN DBS on motor cortical activity in the resting state and during movement. A. MURALIDHARAN; J. ZHANG; F. AGNESI; S. NEBECK; K. B. BAKER*; J. L. VITEK. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

3:00 O1 **412.07** A possible role of reward sensitivity and impulsivity in weight gain after deep brain stimulation. M. AIELLO; F. FORONI; R. ELEOPRA; G. PERGOLA; R. RUMIATI*. *Area of Neurosci., AOUD "Santa Maria della Misericordia, Univ. degli Studi.*

4:00 O2 **412.08** Deep brain stimulation: A new approach to programming for Parkinson's disease. G. GILMORE*; M. DELROBAEI; K. OGNJANOVIC; M. JOG; B. XIAN; F. RAHIMI. *Western Univ. Hosp., Western Univ. Hosp.*

1:00 O3 **412.09** ● Data-driven statistical method for predicting the outcomes of combined pharmacologic and deep brain stimulation therapy for Parkinson's disease. R. R. SHAMIR; T. DOLBER; A. M. NOECKER; A. M. FRANKEMOLLE; B. L. WALTER; C. C. MCINTYRE*. *Case Western Reserve Univ., Case Western Reserve Univ.*

2:00 O4 **412.10** Long term-cortical and subcortical recordings in Parkinson's disease patients using a totally implanted device. C. DE HEMPTINNE*; N. SWANN*; J. OSTREM; M. SAN LUCIANO; N. GALIFIANAKIS; P. STARR. *Univ. of California San Francisco, Univ. of California San Francisco.*

3:00 O5 **412.11** Electrocorticography reveals cortical characteristics of resting tremor in Parkinson's disease. S. E. QASIM*; C. DE HEMPTINNE; N. C. SWANN; P. A. STARR. *UCSF.*

4:00 O6 **412.12** Parkinsonian and essential tremor pathophysiology. H. CAGNAN*; S. LITTLE; T. FOLTYNIE; P. LIMOUSIN; L. ZRINZO; M. HARIZ; B. CHEERAN; J. FITZGERALD; A. GREEN; T. AZIZ; P. BROWN. *Univ. of Oxford, Univ. Col. of London.*

1:00 O7 **412.13** ● Impedance reliability during neurostimulator replacement: Activa to activa vs. soletras to activa. E. L. HARGREAVES*; E. M. FEINSTEIN; R. J. DITOTA; S. WONG; S. F. DANISH. *Robert Wood Johnson Med. Sch., Robert Wood Johnson Med. Sch.*

2:00 O8 **412.14** Distinct patterns of phase-amplitude coupling within the subthalamic nucleus in Parkinson disease. S. RYU; R. MURPHY; M. USHE; J. L. DOWLING; K. M. RICH; J. S. PERLMUTTER; S. CHING; S. A. NORRIS*. *Washington Univ., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ.*

3:00 O9 **412.15** ● Comparison of deep brain stimulation neural activation models developed with 7T MRI data. K. GUNALAN*; A. CHATURVEDI; Y. DUCHIN; G. SAPIRO; N. HAREL; C. C. MCINTYRE. *Case Western Reserve Univ., Univ. of Minnesota, Duke Univ.*

4:00 O10 **412.16** ● Effects of low (60 Hz) and high (130/140 Hz) frequency STN DBS on upper extremity movement velocity and STN beta band power in Parkinson's disease. Z. BLUMENFELD*; A. VELISAR; M. MILLER KOOP; L. SHREVE; E. QUINN; B. HILL; C. KILBANE; C. RODRIGUEZ; J. HENDERSON; H. BRONTE-STEWART. *Stanford Univ., Stanford Univ.*

1:00 O11 **412.17** ● STN LFP recordings from the implanted Activa® PC+S neurostimulator system in freely moving PD subjects reveal conserved resting state profiles while lying, sitting or standing and voltage dependent beta band attenuation during 140 Hz DBS. E. J. QUINN*; Z. BLUMENFELD; L. SHREVE; A. VELISAR; M. KOOP; C. KILBANE; J. HENDERSON; C. RODRIGUEZ; B. HILL; H. BRONTE-STEWART. *Stanford Univ., Stanford Univ.*

2:00 O12 **412.18** Development of devices for movement assessment in clinical settings for Parkinson's disease. J. A. RAMIREZ*; M. R. TORRES-NARVÁEZ; N. FLOREZ; N. MORALES; D. QUIROGA; G. LUNA-CORRALES. *Univ. Del Rosario Sch. of Med., Univ. Del Rosario, Univ. Del Rosario Sch. of Med., Univ. Del Rosario Sch. of Med., Univ. Del Rosario Sch. of Med.*

3:00 P1 **412.19** ● Employing deep brain stimulation surgery as a platform for implanting peripheral nerve grafts into the central nervous system. C. G. VAN HORNE; J. T. SLEVIN; J. E. QUINTERO; G. A. GERHARDT*; J. A. GURWELL. *Univ. Kentucky Med. Ctr., Univ. of Kentucky, Univ. of Kentucky.*

4:00 P2 **412.20** ● Microelectrode recordings of the globus pallidus under sevoflurane anesthesia in Parkinson's disease patients. J. E. QUINTERO*; G. A. GERHARDT; C. G. VAN HORNE. *Univ. Kentucky, Univ. of Kentucky.*

1:00 P3 **412.21** ● Development of a sheep platform and behavioral monitoring methods for assessing deep brain stimulation therapies and devices for movement disorders. R. S. RAIKE*; Y. ZHAO; L. LENTZ; W. SCHINDELDECKER; M. KELLY; D. E. NELSON. *Medtronic, Univ. of Twente.*

POSTER

413. Proteopathic Mechanisms in Parkinson's disease

Theme C: Disorders of the Nervous System

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

1:00 P4 **413.01** Modelling α-synuclein aggregation in a cell system. E. COLLA*; V. LIVERANI; A. CATTANEO. *Scuola Normale Superiore.*

2:00 P5 **413.02** Extracellular ATP induces intracellular alpha-synuclein accumulation via P2X1 receptor-mediated lysosomal dysfunction. M. GAN*; S. MOUSSAUD; P. JIANG; P. J. MCLEAN. *Mayo Clin. Florida, Mayo Col. of Med.*

3:00 P6 **413.03** The saturated free fatty acid palmitate increases alpha-synuclein expression levels- relevance to synucleinopathies. O. GHRIBI*; J. SCHOMMER; S. RAZA. *UND Med. Sch., Univ. of North Dakota.*

4:00 P7 **413.04** The role of dopamine in generating toxic oligomeric conformers of alpha-synuclein. D. E. MOR*; E. TSIKA; J. R. MAZZULLI; J. H. WOLFE; H. ISCHIROPOULOS. *Univ. of Pennsylvania, Ecole Polytechnique Fédérale de Lausanne, Northwestern Univ.*

1:00 P8 **413.05** The interplay between atp13a2 and alpha-synuclein: mitochondria dysfunction via endoplasmic reticulum stress. T. LOPES DA FONSECA*; T. OUTEIRO. *UMG.*

2:00 P9 **413.06** Abnormal alpha-synuclein reduces nigral voltage-dependent anion channel 1 in sporadic and experimental Parkinson's disease. Y. CHU*; Y. HE; J. H. KORDOWER. *Rush Univ. Med. Ctr.*

Mon. PM

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 P10 **413.07** Transcriptional profiling of control and A53T-alpha synuclein human iPS cells differentiated towards midbrain dopamine neurons: A window to regulatory developmental pathways and A53T-associated dysfunction. R. MATSAS*; K. PRODROMIDOU; I. VLACHOS; A. HATZIGEORGIOU; G. KOUROUPI; E. TAOUFIK; K. TSIORAS. *Hellenic Pasteur Inst., Biomed. Sci. Res. Ctr. Alexander Fleming.*

4:00 P11 **413.08** Deciphering the molecular effects of alpha-synuclein in the nucleus: A new concept in synucleinopathies. R. O. PINHO*; L. SOREQ; H. SOREQ; L. FONSECA; M. ZWECKSTETTER; K. GOTOVAC; F. BOROVEČKI; C. REGO; L. CORREIA GUEDES; J. J FERREIRA; T. F OUTEIRO. *Univ. Med. Ctr. Goettingen, The Inst. of Neurology, Univ. Col. London, The Edmond and Lily Safra Ctr. for Brain Sci., MPI for Biophysical Chem., Univ. of Zagreb Sch. of Med., Ctr. for Neurosci. and Cell Biol., Fac. of Medicine, Univ. of Lisbon.*

1:00 P12 **413.09** Nutrient deprivation induces alpha-synuclein aggregation through ER stress response and SREBP2 pathway. P. JIANG*; M. GAN; W. LIN; S. YEN. *Mayo Clin. Col. of Med.*

2:00 Q1 **413.10** α-Synuclein disrupts iron import in a yeast model of Parkinson's disease. S. N. WITT*; D. PATEL. *LSU Hlth. Sci. Ctr. / Biochem., LSU Hlth. Sci. Ctr.*

3:00 Q2 **413.11** DHA induced the dysfunction of cellular proteolysis system and the formation of α-synuclein aggregates in SH-SY5Y cells. M. SHAMOTO-NAGAI*; M. NAOI; T. OSAWA; N. MOTOYAMA; M. MINAMIYAMA; W. MARUYAMA. *Natl. Ctr. For Geriatrics and Gerontology, Aichi Gakuin Univ.*

4:00 Q3 **413.12** Differential expression of alpha-synuclein *in vitro* and *in vivo*. K. TAGUCHI*; Y. WATANABE; A. TSUJIMURA; M. TANAKA. *Kyoto Prefectural Univ. of Med.*

1:00 Q4 **413.13** NEDD4 regulation of the pro-apoptotic protein RTP801 in cellular models of Parkinson's disease. M. CANAL; J. ROMANÍ-AUMEDES; N. MARTÍN-FLORES; V. PÉREZ-FERNÁNDEZ; C. MALAGELADA GRAU*. *Univ. De Barcelona, Univ. De Barcelona.*

2:00 Q5 **413.14** Inhibition of the deubiquitinase UCH-L1 leads to autophagy activation and the clearance of alpha-synuclein aggregates in oligodendroglial cells. K. PUKAß*; C. RICHTER-LANDSBERG. *Univ. of Oldenburg.*

3:00 Q6 **413.15** Lysosomal abnormalities in Parkinson's disease brains. M. CHENG*; S. P. SARDI; A. CUERVO; D. SULZER; S. KUO. *Columbia Univ. Med. Ctr., Genzyme, Albert Einstein Col. of Med.*

4:00 Q7 **413.16** Decrease in UCH-L1 protein in the substantia nigra of neurotoxicant-treated mice is associated with reduced numbers of TH-IR neurons expressing UCH-L1. B. M. WINNER*; R. E. WELCH; Z. A. DERADE; K. J. LOOKINGLAND; J. L. GOUDREAU. *Michigan State Univ., Michigan State Univ., Michigan State Univ., Michigan State Univ.*

1:00 Q8 **413.17** Gene expression profiling to identify Parkinson's disease associated transcripts. L. LIN*; L. W. STANTON. *Genome Inst. of Singapore, Natl. Univ. of Singapore, Natl. Univ. of Singapore, Nanyang Technological Univ.*

2:00 Q9 **413.18** Parkinson's disease linked park15 protein affects bmp signaling through proteasome independent nrage ubiquitination. K. C. CHUNG*; J. KANG; A. HONG; E. IM; Y. LEE; H. RHIM. *Yonsei Univ., 2Center for Neuroscience, Brain Sci. Institute, Korea Inst. of Sci. and Technol.*

3:00 R1 **413.19** Immunostaining of oxidized DJ-1 in human and mouse brain. Y. SAITO*; T. MIYASAKA; H. HATSUTA; K. TAKAHASHI-NIKI; H. ARIGA; S. MURAYAMA; Y. IHARA; N. NOGUCHI. *Doshisha Univ., Doshisha Univ., Tokyo Metropolitan Inst. of Gerontology, Hokkaido Univ.*

4:00 R2 **413.20** Expression and protease activity of mouse legumain are regulated by DJ-1 and secretion of mouse prolegumain into serum is increased in DJ-1-knockout mice. T. YAMANE*; I. OHKUBO; H. ARIGA. *Hokkaido Univ., Tenshi Col.*

1:00 R3 **413.21** AIMP2 facilitates PINK1 clearance through enhancement of ubiquitin proteasomal degradation. S. CHOI*; Y. LEE; D. KIM; S. KWON; T. KAM; S. YUN; G. JUNG; D. A. STEVENS; S. KANG; V. L. DAWSON; T. M. DAWSON; H. KO. *Neuroregeneration and Stem Cell Programs, ICE, The Johns Hopkins Univ. Sch. of Med., Diana Helis Henry Med. Res. Fndn., The Johns Hopkins Univ. Sch. of Med., Adrienne Helis Malvin Med. Res. Fndn., The Johns Hopkins Univ., The Johns Hopkins Univ. Sch. of Med., The Johns Hopkins Univ. Sch. of Med., Adrienne Helis Malvin Med. Res. Fndn.*

2:00 R4 **413.22** Parkinsonism, mutant VPS35, and novel retromer functions in neurons. L. N. MUNSIE*; A. MILNERWOOD; P. SIEBLER; D. BECCANO-KELLY; M. VOLTA; C. KLEIN; M. FARRER. *Univ. of British Columbia, Univ. of British Columbia, Neurogenetics.*

3:00 R5 **413.23** Differential glutamate release from synaptoneurosomes prepared from Parkinson's and Huntington's disease mouse models. J. B. WATSON*; C. C. FERNANDEZ; E. MASLIAH; T. A. SARAFIAN. *David Geffen Sch. Med. UCLA, UCSD.*

4:00 R6 **413.24** Is the presence of perforated synapses after dopamine depletion a sign of maladaptive brain plasticity? M. AVILA-COSTA*; V. ANAYA-MARTÍNEZ; A. GUTIERREZ-VALDEZ; J. ORDOÑEZ-LIBRADO; J. SANCHEZ-BETANCOURT; E. MONTIEL-FLORES; J. ESPINOSA-VILLANUEVA; P. ALEY-MEDINA; L. REYNOSO-ERAZO; J. MACHADO-SALAS. *UNAM, Neuromorphology Lab., UNAM.*

1:00 R7 **413.25** Gender differences on the chronic effect of L-dopa and melatonin in the motor performance in a Parkinson disease model. A. GUTIERREZ VALDEZ*; V. ANAYA-MARTINEZ; J. T. SÁNCHEZ BETANCOURT; J. L. ORDOÑEZ-LIBRADO; E. MONTIEL-FLORES; J. ESPINOSA-VILLANUEVA; S. A. SÁNCHEZ-SORIA; A. TRUJILLO-MARTÍNEZ; F. HUERTA-OLIVAREZ; T. IBARRA-GUTIÉRREZ; M. R. AVILA-COSTA. *UNAM.*

POSTER

414. Parkinson's disease: Circuit Mechanisms

Theme C: Disorders of the Nervous System

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

1:00 R8 **414.01** The effect of electrical stimulation of the subthalamic nucleus or internal part of the globus pallidus to primate striatal interneurons. Y. SHIMO*; A. NAKAJIMA; T. UKA; N. HATTORI. *Juntendo Univ., Juntendo Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 R9 **414.02** Physiological patterns of optogenetic stimulation in the motor thalamus restore reaching in parkinsonian rats. S. SEEGER-ARMBRUSTER*; C. BOSCH-BOUJU; S. T. C. LITTLE; R. A. SMITHER; S. M. HUGHES; B. I. HYLAND; L. C. PARR-BROWNLIE. *Univ. of Otago, Univ. of Otago, Univ. of Otago, INRA, Univ. of Bordeaux, Univ. of Otago.*

3:00 R10 **414.03** Optogenetics mapping of the dynamic properties of the Hyperdirect and Indirect Pathways. B. DE LA CROMPE*; N. MALLET; F. GONON; T. BORAUD. *Univ. De Bordeaux, IMN UMR 5293, CNRS, IMN, UMR 5293.*

4:00 R11 **414.04** mGRASP-assisted synaptic mapping of external globus pallidus (GPe) - subthalamic nucleus (STN) circuits in health and Parkinson's disease model. K. OSUNG*; H. PARK; B. LEE; S. DRUCKMANN; L. FENG; W. OH; S. PAEK; J. KIM. *Korea Inst. of Sci. and Technol., Korea, Univ. of Sci. & Technol., Seoul Natl. Univ. Col. of Med., Howard Hughes Med. Inst.*

1:00 R12 **414.05** Correlation of synchronized dynamics in cortical and basal ganglia networks in Parkinson's disease. S. AHN; S. E. ZAUBER; T. WITT; R. M. WORTH; L. L. RUBCHINSKY*. *Indiana University-Purdue Univ. Indianapolis, Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., IUPUI & Indiana Univ. Sch. Med.*

2:00 S1 **414.06** Increased interhemispherical synchronization in the hemiparkinsonian rat: A multielectrode approach. B. N. JAVOR-DURAY; M. VAN DER ROEST; C. J. STAM; H. W. BERENDSE; M. VINCK; P. VOORN*. *VU Univ. Med. Ctr., VU Univ. Med. Ctr., VU Univ. Med. Ctr., Yale Univ.*

3:00 S2 **414.07** Disrupted connectivity of motor loops within the basal ganglia in atypical parkinsonism. T. TANIWAKI*; A. YORITA; H. KIDA; K. YAMASHITA; S. MIURA. *Dept Med, Kurume Univ.*

4:00 S3 **414.08** Electrophysiological mapping of alpha and beta local field potential activity across the motor thalamus: Comparison to *in vivo* cerebello-pallidal fibre distribution in humans. E. PELZER; K. A. M. PAULS; N. BRAUN; M. MAAROUF; S. HUNSCHE; L. TIMMERMANN; M. TITTGEMEYER*. *MPI For Neurolog. Res., Univ. Hosp. of Cologne, Univ. Hosp. of Cologne.*

1:00 S4 **414.09** Investigation of subthalamic and peripheral motor unit activity in Parkinson disease during an isometric grip task. K. G. HAMMOND*; C. L. GONZALEZ; H. C. WALKER. *Univ. of Alabama At Birmingham, Univ. of Alabama at Birmingham.*

2:00 S5 **414.10** Role of pedunculopontine cholinergic neurons in gait. N. FARHANI*; R. RAJAKUMAR; M. S. JOG. *Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Western Ontario.*

3:00 S6 **414.11** Cortical synchronization is altered in freezers with Parkinson's disease during dual task interference. M. A. SCHOLTEN*; R. GOVINDAN; C. BRAUN; C. PLEWNIA; A. GHARABAGHI; R. KRUEGER; D. WEISS. *Hertie Institute, Neurodegeneration, German Ctr. of Neurodegenerative Dis., Ctr. for Integrative Neurosci., Children's Natl. Med. Ctr., Med. psychology and behavioral neurobiology, Univ. of Tuebingen, Univ. of Tuebingen.*

4:00 S7 **414.12** Dopamine depletion results in frequency-dependent disinhibition of corticostriatal transmission *in vivo:* Role of local GABAergic function. V. R. JAYASINGHE*; 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.*

1:00 S8 **414.13** Modulating dopamine and glutamate signaling in the primary motor cortex alters the motor symptoms of Parkinson's disease and L-DOPA-induced dyskinesia in rats. D. LINDENBACH*; C. BISHOP. *Binghamton Univ.*

2:00 S9 **414.14** ● Optimized temporal patterns of stimulation suppress oscillatory neuronal activity in a computational model of Parkinson's disease and in hemi-parkinsonian rats. D. T. BROCKER*; W. M. GRILL. *Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

3:00 S10 **414.15** Relationship between oscillatory activity and tremor in rats. C. S. OZA*; D. T. BROCKER; C. E. BEHREND; W. M. GRILL. *Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

4:00 S11 **414.16** Neuronal basis of deep brain stimulation of the substantia nigra pars reticulata to treat gait. G. C. MCCONNELL*; W. M. GRILL. *Duke Univ.*

1:00 S12 **414.17** Dysfunctional GABAB transmission at striatonigral synapses drives motor sensitization in parkinsonian mice. A. BORGKVIST*; M. KHEIRBEK; R. HEN; D. SULZER. *Columbia Univ. Med. Ctr., Columbia Univ., Columbia Univ.*

2:00 T1 **414.18** Chemogenetic inhibition of the subthalamic region of parkinsonian mice improves motor function. L. BROOM*; T. SAMARDZIC; A. WORLEY; J. CLARK; Y. OISHI; D. K. SIMON; C. B. SAPER; V. VANDERHORST. *Beth Israel Deaconess Med. Ctr., Univ. of Tsukuba, Beth Israel Deaconess Med. Center/ Harvard Med. Sch.*

3:00 T2 **414.19** Spinal cord stimulation alleviates motor symptoms and decreases beta oscillatory activity in bilateral 6-OHDA marmosets. R. A. FUENTES*; M. SANTANA; P. HALJE; H. SIMPLICIO; U. RICHTER; M. FREIRE; P. PETERSSON; M. NICOLELIS. *Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Edmond and Lily Safra Int. Inst. of Neurosci. of Natal, Lund Universtiy, Duke Univ.*

4:00 T3 **414.20** ● Phase amplitude coupling in Parkinson's disease detected with scalp electroencephalography. N. C. SWANN*; C. DE HEMPTINNE; J. OSTREM; R. KNIGHT; P. STARR. *Univ. of California, San Francisco, Univ. of California San Francisco, Univ. of California San Francisco, Univ. of California Berkeley.*

1:00 T4 **414.21** The resting functional connectivity change in Parkinson's disease related pain. R. LIN*; R. WU; C. HONG; Y. SHIH; W. I. TSENG. *Natl. Taiwan Univ., Dept. of Neurology, Natl. Taiwan Univ. Hospital, Col. of Med., Dept. of Neurology, Natl. Taiwan Univ. Hosp., Ctr. for Optoelectronic Medicine, Col. of Medicine, Natl. Taiwan Univ.*

2:00 T5 **414.22** Acute effect of lead insertion into the basal ganglia on primary motor cortex in patients with Parkinson's disease. N. C. ROWLAND*; C. DE HEMPTINNE; N. SWANN; R. KNIGHT; P. STARR. *Univ. of California, San Francisco, Univ. of California, San Francisco, Univ. of California Berkeley.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

415. Huntington's disease Animal Models and Therapeutics

Theme C: Disorders of the Nervous System

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

1:00 T6 **415.01** ● Studies on a transgenic (zQ175) model of Huntington's disease using functional imaging in awake mice: evidence of huntingtin-associated-protein 1 dysfunction. J. R. YEE*; P. KULKARNI; W. KENKEL; S. TODDES; M. NEDELMAN; C. F. FERRIS. *Northeastern Univ., Animal Imaging Res., Ekam Imaging.*

2:00 T7 **415.02** ● Lack of benefits from a moderate decrease of full length huntingtin by antisense oligonucleotides in a knock-in mouse model of Huntington's disease. N. R. FRANICH; M. A. HICKEY; N. H. BOVE; A. RELANO-GINES; V. LEMESRE; C. ZHU; E. R. S. TORRES; J. W. CHEUNG; S. D. S. GREWAL; S. LEE; S. KAWAKATSU; K. FERGUSON; J. USUI; G. DUTTA; W. REINDL; F. HERRMANN; D. MACDONALD; E. V. WANCEWICZ; G. HUNG; C. MAZUR; F. BENNETT; M. CHESSELET*. *UCLA, Evotec Ltd, CHDI Management/CHDI Fndn., Isis Pharmaceuticals Inc.*

3:00 T8 **415.03** Alterations in thalamostriatal glutamate input to the direct and indirect pathway striatal medium spiny neurons in the R6/2 mouse model of Huntington's disease. C. K. MESHUL*; C. MOORE; C. CEPEDA; M. S. LEVINE. *VA Med. Ctr., OHSU, UCLA.*

4:00 T9 **415.04** Study of the kinetics of the GABA current in neurons of the striatum nucleus in C57BL/6 mice treated with acid 3-nitropropionic as model of Huntington's disease. J. A. GARZÓN-VAZQUEZ; J. L. FLORES-HERNANDEZ*; E. HERNÁNDEZ-ECHEAGARAY. *Univ. Autonoma de Puebla, UNAM.*

1:00 T10 **415.05** Characterizing a novel knock-in mouse model of Huntington's disease. J. K. CAO*; P. DETLOFF; N. STELLA. *Univ. of Washington, Univ. of Alabama, Birmingham.*

2:00 T11 **415.06** ● Alterations in sensory-evoked oscillatory activity in mouse models of Huntington's disease. M. E. LEVIN*; K. A. RICHARDSON; B. BURAN; E. D. BUERGER; B. K. ESCHLE; R. LEE; J. K. T. WANG; D. J. GERBER. *Galenea, Galenea Corp, CHDI Fndn.*

3:00 T12 **415.07** Mutant-huntingtin transgenic songbirds: A new model for the study of progressive vocal learning disorder. W. LIU*; J. KOHN; S. SZWED. *Rockefeller Univ.*

4:00 U1 **415.08** Muscular volumetric and metabolite characterization of R6/2 and zQ175 knock in mice of Huntington's disease. K. LEHTIMÄKI; T. LAITINEN; T. HEIKKINEN; A. NURMI; O. M. KONTKANEN*; I. MUNOZ-SANJUAN; L. C. PARK. *Charles River Discovery Res. Services, CHDI Management/CHDI Fndn.*

1:00 U2 **415.09** Early fine motor skill impairment of R6/2 and zQ175 knock in mice of Huntington's disease. T. HEIKKINEN; T. BRAGGE; J. T. PUOLIVALI*; A. NURMI; O. KONTKANEN; I. MUNOZ-SANJUAN; L. C. PARK. *Charles River Discovery Res. Services, CHDI Management/CHDI Fndn.*

2:00 U3 **415.10** Modulation of GABAergic plasticity in a mice model of striatal degeneration. E. NIETO-MENDOZA; E. HERNANDEZ-ECHEAGARAY*, Dr. *Univ. Nacional Autónoma de México.*

3:00 U4 **415.11** Accelerated disease progression in the r6/2 mouse model induced by the tetracycline transactivator. K. L. WHEATON; K. OBRIETAN; K. R. HOYT*. *Ohio State Univ., Ohio State Univ.*

4:00 U5 **415.12** Electrophysiological characterization of R6/2 and zQ175 knock in mice of Huntington's disease using implanted telemetry. H. CHADCHANKAR*; T. HEIKKINEN; A. NURMI; O. KONTKANEN; I. MUNOZ-SANJUAN; L. C. PARK. *Charles River Discovery Res. Services Finland, CHDI Management/CHDI Fndn.*

1:00 U6 **415.13** Central and autonomic dysfunction induces severe abnormalities of circadian rhythm and cardiac function in R6/2 and zQ175 knock in mice of Huntington's disease. H. CHADCHANKAR; T. HEIKKINEN; A. NURMI; N. E. VARTIAINEN*; O. KONTKANEN; I. MUNOZ-SANJUAN; L. C. PARK. *Charles River Discovery Res. Services, Charles River Discovery Res. Services Finland, CHDI Management/CHDI Fndn.*

2:00 U7 **415.14** Engineered mesenchymal stem cells to overexpress BDNF for the treatment of Huntington's disease. H. STEWART*; K. POLLOCK; W. CARY; H. NELSON; C. NACEY; K. PEPPER; K. D. FINK; W. GRUENLOH; G. ANNETT; T. TEMPKIN; V. WHEELOCK; J. A. NOLTA. *UC Davis, Univ. of California, Davis.*

3:00 U8 **415.15** A detailed description of the Huntington's disease-like pathology exhibited by the HdhQ150/150 mouse. I. RATTRAY*; E. J. SMITH; W. R. CRUM; T. A. WALKER; R. GALE; G. BATES; M. MODO. *King's Col. London, King's Col. London, Univ. of Pittsburgh.*

4:00 U9 **415.16** Reducing caspase 6 activity by AAV-mediated RNAi partially ameliorates disease manifestations in the YAC128 mouse model of Huntington's disease. L. M. STANEK*; B. MASTIS; S. P. SARDI; B. WONG; S. LADHA; D. EHRNHOEFER; M. HAYDEN; S. H. CHENG; L. S. SHIHABUDDIN. *Genzyme, A Sanofi Co., Univ. of British Columbia.*

1:00 U10 **415.17** Earlier deficits are associated with increased aberrantly spliced mutant huntingtin in knock-in mouse models of Huntington's disease. N. R. FRANICH*; M. A. HICKEY; A. NEUEDER; T. CHU; C. ZHU; N. H. BOVE; V. LEMESRE; R. P. LERNER; J. S. STEFFAN; S. O. ZEITLIN; G. P. BATES; M. CHESSELET. *UCLA Neurol., King's Col. London, Univ. of California Irvine, Univ. of Virginia.*

2:00 U11 **415.18** Phenotypic characterization of BACHD hemi rats of Huntington's disease. J. PUOLIVÄLI; S. KIM*; T. HEIKKINEN; T. BRAGGE; K. LEHTIMÄKI; T. LAITINEN; O. KONTKANEN; H. NGUYEN; I. MUNOZ-SANJUAN; D. HOWLAND; L. C. PARK. *Charles River Discovery Res. Services Finland, Univ. of Tuebingen, CHDI Management/CHDI Fndn.*

3:00 U12 **415.19** Neurophysiological biomarkers for evaluating a Phosphodiesterase9A inhibitor for Huntington's disease. D. NAGY; F. D. TINGLEY III; M. STOILJKOVIC; M. HAJOS*. *Yale Univ. Sch. of Med.*

4:00 U13 **415.20** ● Evaluation of prophylactic treatment with the phosphodiesterase 10 inhibitor MP10 on cognitive and behavioral assessments in the Q175 knock-in mouse model of Huntington's disease. P. STOLYAR*; C. ARTURI; D. VOLFSON; S. LOTARSKI; S. J. SUKOFF RIZZO; M. M. ZALESKA. *Pfizer Inc., Pfizer Inc, Pfizer Inc, Jackson Labs.*

1:00 U14 **415.21** Application of home cage monitoring in the behavioural characterization of Huntington R6/2 transgenic mouse model: An early diagnostic tool? R. DE HEER*; M. MELLACE; G. BATES; B. M. SPRUIJT. *Delta Phenomics, Utrecht Univ., King's Col.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 U15 **415.22** Structure/function analysis of the murine huntingtin N-terminus encoded by Htt exon 1 using knock-in mouse mutants. E. ANDRE*; J. LIU; S. ZEITLIN. *Univ. of Virginia.*

3:00 U16 **415.23** Principal component analysis of fine motor skill impairment of R6/2 and zQ175 knock in mice of Huntington's disease. T. HEIKKINEN*; T. BRAGGE; J. PUOLIVÄLI; A. NURMI; O. KONTKANEN; I. MUNOZ-SANJUAN; L. C. PARK. *Charles River Discovery Res. Services, CHDI Management/CHDI Fndn.*

4:00 U17 **415.24** Impact of phosphodiesterase 10A inhibition on spontaneous and cortically-evoked spike activity in the striatum of Q175 mice that model Huntington's disease. S. CHAKROBORTY; A. M. DEC; C. J. SCHMIDT; A. R. WEST*. *Rosalind Franklin Univ. Med. Sci., Pfizer Inc.*

POSTER

416. SBMA and Other Non-Huntington's disease Repeat Diseases

Theme C: Disorders of the Nervous System

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

1:00 U18 **416.01** Determining the role of ARD1 in SBMA. H. L. MONTIE*; S. HOSEIN; D. SIMPSON; W. LIU; D. E. MERRY; E. M. HEINE. *Philadelphia Col. of Osteo. Med., Louisiana State Univ., Thomas Jefferson Univ.*

2:00 U19 **416.02** Identification of novel aggregation species in the polyglutamine disease spinal and bulbar muscular atrophy. T. R. BERGER*; P. JAIN; J. LEGLEITER; A. PLUCIENNIK; L. ZBORAY; E. HEINE; H. MONTIE; D. MERRY. *Thomas Jefferson Univ., Univ. of West Virginia, Philadelphia Col. of Med.*

3:00 U20 **416.03** SBMA motor dysfunction may be due to failed neuromuscular transmission. Y. XU; W. ATCHISON; H. ADACHI; M. KATSUNO; G. SOBUE; S. BREEDLOVE; C. L. JORDAN*. *Michigan State Univ., Univ. of Occup. and Envrn. Hlth. Sch. of Med., Nagoya Universtiy Grad. Sch. of Med., Nagoya Univ. Grad. Sch. of Med., Michigan State Univ., Michigan State Univ.*

4:00 U21 **416.04** Androgen-dependent deficits in muscle-derived BDNF correlate with motor dysfunction in two mouse models of spinal bulbar muscular atrophy. K. HALIEVSKI*; Y. XU; C. L. HENLEY; M. KATSUNO; H. ADACHI; G. SOBUE; S. M. BREEDLOVE; C. L. JORDAN. *Michigan State Univ., Nagoya Univ. Grad. Sch. of Med., Univ. of Occup. and Envrn. Hlth.*

1:00 U22 **416.05** The role of Tip60, an androgen receptor acetyltransferase, in SBMA. E. HEINE*; C. N. ROBSON; D. E. MERRY; H. L. MONTIE. *Philadelphia Col. of Osteo. Med., Newcastle Univ., Thomas Jefferson Univ.*

2:00 U23 **416.06** Analysis of nuclear export of polyglutamine-expanded androgen receptor in a cell model of spinal and bulbar muscular atrophy. F. ARNOLD; H. MONTIE; D. E. MERRY*. *Thomas Jefferson Univ., Philadelphia Col. of Osteo. Med.*

3:00 U24 **416.07** A pharmacological approach to induce the clearance of mutant androgen receptor in spinal and bulbar muscular atrophy. P. RUSMINI*; E. GIORGETTI; V. CRIPPA; R. CRISTOFANI; M. CICARDI; A. POLETTI. *University Of Milan.*

4:00 U25 **416.08** Study of intermediate-length polyQ repeats in sporadic amyotrophic lateral sclerosis. F. L. NUNEZ SANTANA*; N. A. SIDDIQUE; T. SIDDIQUE. *Northwestern University, Feinberg Sch. Med.*

POSTER

417. Motor Neuron Disease: Cellular Mechanisms

Theme C: Disorders of the Nervous System

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

1:00 U26 **417.01** The modulation of glutamate release by pre-synaptic group 1 metabotropic glutamate receptors in als. C. USAI*; M. MILANESE; T. BONIFACINO; P. I. A. ROSSI; A. PULITI; A. PITTALUGA; G. BONANNO. *Natl. Rese Council, Univ. of Genova, Ctr. of Excellence for Biomed. Res., Univ. of Genoa, Gaslini Inst.*

2:00 U27 **417.02** Induction of NF-KB activation by ALS-linked Ubiquilin-2 mutant. V. PICHER-MARTEL*; A. AYOUAZ; D. PHANEUF; J. JULIEN. *CRIUSMQ.*

3:00 U28 **417.03** Dysregulated gene expression in the axotomized facial motor nucleus of RAG-2 KO mice: Relevance to ALS. D. N. OLMSTEAD*; N. A. MESNARD-HOAGLIN; M. M. HAULCOMB; R. J. BATKA; N. D. SCHARTZ; V. M. SANDERS; K. J. JONES. *Indiana Univ. Sch. of Med., Richard L. Roudebush VAMC, Loyola Univ. Med. Ctr., Hines VA Hosp., The Ohio State Univ.*

4:00 U29 **417.04** CIIA prevents SOD1(G93A)-induced cytotoxicity by blocking ASK1-mediated signaling. J. LEE*; S. HWANG; J. SHIN; J. SHIM; E. CHOI. *Korea Univ., Samsung Advanced Inst. for Hlth. Sci. and Technology, Sungkyunkwan Univ., Sejong Univ.*

1:00 U30 **417.05** Linking mitochondrial and autophagic activities in neurotoxic yeast cell death models. C. LEIBIGER*; R. BRAUN. *Inst. of Cell Biol., Inst. of Cell Biol.*

2:00 U31 **417.06** Visualization of CSMN in the absence of Alsin function in AlsinKO-UeGFP mice reveals details of cellular vulnerability. M. GAUTAM*; G. SEKERKOVA´; M. V. YASVOINA; J. H. JARA; M. MARTINA; P. H. OZDINLER. *Northwestern Univ., Northwestern Univ.*

3:00 U32 **417.07** Mutant SOD1 misfolding and ER dysfunction in the pathogenesis of familial ALS. H. KAWAMATA*. *Weill Med. Col. of Cornell Univ.*

4:00 U33 **417.08** Nuclear TDP-43 induces neuronal cell death by associating with heterogeneous nuclear ribonucleoprotein-U. H. SUZUKI*; M. MATSUOKA. *Tokyo Med. Univ.*

1:00 U34 **417.09** The role of ephrin-b2 in amyotrophic lateral sclerosis. L. RUE; L. SCHOONAERT; L. POPPE; M. TIMMERS; A. VAN HOECKE; P. VAN DAMME; R. LEMMENS; W. L. ROBBERECHT*. *KU Leuven/VIB, Max-Planck-Institute of Neurobio., Univ. Hosp Gasthuisberg.*

2:00 U35 **417.10** Pathways of degradation of dysfunctional mitochondria in NSC34 motor neurons expressing mutant SOD1. G. M. PALOMO; J. MAGRANE; I. SHAHI; G. MANFREDI*. *Brain and Mind Res. Institute, Weill Med. Col. of Cornell Univ., Weill Med. Col. Cornell Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 U36 **417.11** Elp3 is a disease modifier of amyotrophic lateral sclerosis. A. BENTO-ABREU; M. TIMMERS; P. VAN DAMME*; L. VAN DEN BOSCH; W. ROBBERECHT. *KU Leuven - Univ. of Leuven, Dept. of Neurosciences, VIB - Vesalius Res. Center, Exptl. Neurol. - Lab. of Neurobio., Neurol. Department, UZ Leuven.*

4:00 V1 **417.12** Identification of a resilient population of axotomized motoneurons within the mouse facial motor nucleus. R. M. MEADOWS*; M. M. HAULCOMB; T. BEAHRS; R. J. BATKA; N. D. SCHARTZ; V. M. SANDERS; K. J. JONES. *Indiana Univ. Sch. of Med., Richard L. Roudebush VAMC, Loyola Univ. Med. Ctr., The Ohio State Univ.*

1:00 V2 **417.13** SMA motor neurons show impaired mRNP complex assembly. P. G. DONLIN-ASP*; C. FALLINI; J. P. ROUANET; M. E. MERRITT; G. J. BASSELL; W. ROSSOLL. *Emory Univ. Sch. of Med., Univ. of Massachusetts Med. Sch., Emory Univ. Sch. of Med., Emory Univ. Sch. of Med.*

2:00 V3 **417.14** Voxel-based mapping of grey matter volume and glucose metabolism profiles in Amyotrophic Lateral Sclerosis. M. BUHOUR*; L. CARLUER; F. DOIDY; A. MONDOU; A. PÉLERIN; F. EUSTACHE; F. VIADER; B. DESGRANGES. *INSERM U1077, Neurol. Department, Caen Univ. Hosp.*

3:00 V4 **417.15** Micrornas at the *C. elegans* neuromuscular junction: Potential sma modifiers? P. J. O'HERN*; A. C. HART. *Brown Univ.*

4:00 V5 **417.16** The role of bid in toll-like receptor signalling in glial cells following mutant SOD1-induced neuroinflammation in Amyotrophic Lateral Sclerosis. S. KINSELLA*; K. S. COUGHLAN; H. G. KOENIG; J. H. M. PREHN. *Royal Col. of Surgeons In Ireland.*

1:00 V6 **417.17** Axonal transport and translation of α- and γ-actin mRNAs are altered in Smn-deficient motoneurons. M. MORADI*; L. SAAL; R. BLUM; M. SENDTNER. *Inst. For Clin. Neurobio.*

2:00 V7 **417.18** Dynein/dynactin mutations associated with amyotrophic lateral sclerosis and their effect on axonal transport and neuromuscular junction formation. V. BERCIER*; T. AUER; F. DEL BENE. *Inst. Curie-Research Ctr., Pierre et Marie Curie University-Paris VI, École des Neurosciences de Paris-Ile-de-France (ENP), Ruprecht-Karls-Universität Heidelberg.*

3:00 V8 **417.19** TDP-43 associated proteins as modulators of TDP-43 aggregation and toxicity in primary neurons. C. CHOU; O. ALEXEEVA; Y. ZHANG; B. MO; K. R. WILLIAMS; D. C. ZARNESCU; G. J. BASSELL; W. ROSSOLL*. *Emory Univ. Sch. of Med., Univ. of Arizona, Emory Univ. Sch. of Med., Emory Univ. Sch. of Med.*

4:00 V9 **417.20** The effects of metabolic disturbances on the levels of misfolded SOD1 in ALS patient-derived fibroblast lines. I. KESKIN*; E. FORSGREN; J. GILTHORPE; E. TOKUDA; A. BIRVE; P. M. ANDERSEN; S. MARKLUND. *Umea Univ., Umea Univ.*

1:00 V10 **417.21** Transcriptome profiling of spinal muscular atrophy motor neurons derived from mouse embryonic stem cells. M. E. BUTCHBACH*; M. MAEDA; A. W. HARRIS; B. F. KINGHAM; C. J. LUMPKIN; L. M. OPDENAKER; S. M. MCCAHAN; W. WANG. *Nemours Biomed. Research/A. I. duPont Hosp. For Children, Univ. of Delaware, Nemours Biomed. Research/A. I. duPont Hosp. For Children, Thomas Jefferson Univ., Univ. of Delaware, Univ. of Delaware, Nemours Biomed. Research/A. I. duPont Hosp. For Children.*

2:00 V11 **417.22** A stem cell model of motor circuits reveals distinct requirements of SMN for motor neuron survival and function. C. M. SIMON*; A. JANAS; F. LOTTI; L. PELLIZZONI; G. MENTIS. *Motor Neuron Ctr.*

3:00 V12 **417.23** Characterization of iPSC derivatives from spinal and bulbar muscular atrophy patients. I. KATS*; C. GRUNSEICH; K. ZUKOSKY; L. GHOSH; G. HARMISON; L. C. BOTT; C. RINALDI; K. CHEN; G. CHEN; M. BOEHM; K. H. FISCHBECK. *NIH.*

4:00 V13 **417.24** Nuclear transport defect underlies C9ORF72 ALS/FTD neuronal injury in human neurons and is rescued by antisense and small molecules that target GGGGCC RNA. C. J. DONNELLY*; K. ZHANG; A. R. HAEUSLER; J. WANG; T. E. LLOYD; R. SATTLER; J. D. ROTHSTEIN. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Publ. Hlth., Johns Hopkins Univ.*

1:00 V14 **417.25** Motor neuron hyperexcitability is induced by non-cell autonomous mechanisms in a mouse model of spinal muscular atrophy. E. FLETCHER*; C. SIMON; J. PAGIAZITIS; X. WANG; G. MENTIS. *Columbia Univ.*

2:00 V15 **417.26** Elucidating the degeneration of spinal motor neurons in human models of spinal muscular atrophy. C. XU*; K. DENTON; X. LI. *Univ. of Connecticut Hlth. Ctr., Stem Cell Inst.*

3:00 V16 **417.27** ● Role of a unique RNA structure in regulation of alternative splicing of spinal muscular atrophy gene. N. N. SINGH; R. N. SINGH*. *Iowa State Univ., Iowa State Univ.*

POSTER

418. Down Syndrome Molecular Mechanisms

Theme C: Disorders of the Nervous System

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

1:00 V17 **418.01** ● Overexpression of the amyloid precursor protein triggers an increase in P21-activated kinase (PAK) activity and disrupts neurite extension in murine trisomy 16 neuronal cell lines, an animal model of Down syndrome. N. BARRAZA; A. CARDENAS; J. BARNIER; K. S. POKSAY; V. JOHN; P. A. CAVIEDES*. *ICBM Fac Medicine, Univ. of Chile, CINV, Univ. of Valparaíso, Ctr. de Neurosciences Paris-Sud CNPS, Buck Inst. for Res. on Aging, UCLA.*

2:00 V18 **418.02** Chromatin related functions of BRWD1, a neuronally enriched nucleosomal 'reader' protein: Implications for Down syndrome associated pathologies. I. S. MAZE*; W. WENDERSKI. *The Rockefeller Univ.*

3:00 V19 **418.03** DSCR1 is critical for local protein synthesis in neurons. W. WANG*; Z. SMILANSKY; K. CHANG; K. MIN. *The Ulsan Natl. Inst. of Sci. and Techno, 2Anima Cell Metrology, Inc, USC.*

4:00 V20 **418.04** ● The PAK effector pathway as a possible pathophysiological target in immortalized cell models of Down Syndrome. Possible role of DSCAM mediated dysregulation. R. D. PÉREZ*; J. BARNIER; R. CAVIEDES; P. CAVIEDES. *ICBM, Fac. Medicine,University of Chile, CNRS.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 V21 **418.05** Effects of maternal choline supplementation (MCS) on CA1 pyramidal neuron gene expression in adult Ts65Dn and normal disomic (2N) offspring. M. J. ALLDRED*; S. H. LEE; E. PETKOVA; S. D. GINSBERG. *Nathan Kline Inst., New York Univ. Langone Med. Ctr., Nathan Kline Inst., Nathan Kline Inst., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr.*

2:00 V22 **418.06** Age-dependent disruptions to signaling networks in the hippocampus of the Ts65dn mouse model of Down Syndrome. D. R. HOLMAN*; Z. GALDZICKI; X. XU; P. DAO; T. PRZYTYCKA. *Uniformed Services Univ. of the Hlth. Sci., NIH.*

3:00 V23 **418.07** Synaptic plasticity deficits in mouse models of Down syndrome and Alzheimer disease. C. M. WILLIAM*; L. SAQRAN; M. A. STERN; M. P. FROSCH; B. T. HYMAN. *Massachusetts Gen Hosp, Massachusetts Gen. Hosp.*

4:00 V24 **418.08** ● Decreased intracellular traffic after induction of autophagy in the CTb cell line, derived from the cerebral cortex of a trisomy 16 mouse, an *in vitro* model of Down Syndrome. C. F. ARRIAGADA*; D. HERNÁNDEZ; R. PÉREZ; P. SALAZAR; P. CAVIEDES. *ICBM, Fac. Med, Univ. Chile.*

1:00 V25 **418.09** Mitochondria are dysfcuntional in Down's syndrome. C. J. MCALLISTER*; S. H. ZAMAN; A. SLEIGH; M. J. WALPERT; P. F. CHINNERY; A. J. HOLLAND. *Univ. of Cambridge, Univ. of Cambridge, Newcastle Univ.*

2:00 V26 **418.10** DYRK1A, a novel biomarker for Alzheimer's disease identified in plasma (AD) and LCLs (AD and DS). J. DELABAR*; N. JANEL; M. BOTTLAENDER; F. CORLIER; H. CORNE; L. CRUZ DE SOUSA; A. AKA; H. BLEHAUT; V. HINDIE; J. RAIN; M. ARBONES; J. PAUL; P. COSKUN; I. LOTT; J. BUSCIGLIO; M. POTIER; M. SARAZIN. *CNRS, Univ. Paris Diderot, Univ. Paris Diderot, CEA, DSV, Hop Pitie Salpetriere, hop Pitie Salpetriere, Univ. Paris Diderot, Fond J Lejeune, Hybrigenics, Inst. de Biología Mol. de Barcelona, AP-HP, Hôpital Européen Georges Pompidou, Univ. of California Irvine,, Brain & Spine Inst. (ICM), Dept. of Neurology, Sorbonne Paris Cité, INSERM UMR S894, Ctr. Hospitalier Sainte Anne.*

3:00 V27 **418.11** Attenuation of SHH signaling due to trisomy 21. F. FERNANDEZ*; S. EDIE; N. ZAGHLOUL; D. KLINEDINST; J. LEBRON; N. KATSANIS; R. REEVES. *Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med., Univ. of Maryland Sch. of Med., Duke Univ.*

4:00 V28 **418.12** ● Is a reduced cellular response to shh a "common denominator" for multiple phenotypes of Down syndrome? T. DUTKA; N. SINGH; J. T. RICHTSMEIER; R. H. REEVES*. *Johns Hopkins Univ., Pennsylvania State Universityr, Johns Hopkins Sch. of Med.*

1:00 V29 **418.13** Comparative proteomic profiling reveals aberrant cell proliferation in the embryonic brain of Ts1Cje, a mouse model for Down syndrome. K. ISHIHARA*; S. KANAI; H. SAGO; K. YAMAKAWA; S. AKIBA. *Kyoto Pharmaceut. Univ., RIKEN Brain Sci. Inst., Kyoto Pharmaceut. Univ., Natl. Ctr. for Child Hlth. and Develop.*

2:00 V30 **418.14** Functional analysis of novel collybistin missense mutations associated with intellectual disability. P. LONG*; P. WESCHE; V. M. JAMES; M. TOPF; K. HARVEY; R. J. HARVEY. *UCL, Birkbeck Col.*

POSTER

419. Epilepsy: Networks

Theme C: Disorders of the Nervous System

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

1:00 V31 **419.01** Divisive inhibition prevents abrupt transition from order to chaos in a neural field model. C. PAPASAVVAS*; Y. WANG; A. J. TREVELYAN; M. KAISER. *Newcastle Univ., Newcastle Univ.*

2:00 V32 **419.02** Variations in whole-brain functional connectivity across seizure chronification in a mouse model of mesial temporal lobe epilepsy. J. M. CORTES*; A. ERRAMUZPE; J. M. ENCINAS; A. SIERRA; M. MALETIC-SAVATIC; A. L. BREWSTER; A. E. ANDERSON; S. STRAMAGLIA. *Biocruces Hlth. Res. Institute., Ikerbasque: The Basque Fndn. for Sci., Achucarro Basque Ctr. for Neurosci., Univ. of the Basque Country (UPV/EHU), Baylor Col. of Med., Universit degli Studi di Bari and INFN.*

3:00 W1 **419.03** The relationship between paroxysmal depolarizations and high frequency oscillations in focal epilepsy. T. EISSA*; A. K. TRYBA; F. BEN-MABROUK; S. LEW; C. MARCUCCILLI; C. SCHEVON; W. VAN DRONGELEN. *Univ. of Chicago, Med. Col. of Wisconsin, Med. Col. of Wisconsin, Univ. of Chicago, Columbia Univ.*

4:00 W2 **419.04** Widefield imaging of sensory and epileptiform activity in mouse visual cortex. L. ROSSI*; D. M. KULLMANN; M. CARANDINI; R. WYKES. *Univ. Col. of London, Inst. of Neurology, Univ. Col. of London.*

1:00 W3 **419.05** Effective connectivity of the macaque amygdala after kindling assessed by electrical microstimulation during functional MRI. E. CLEEREN*; P. JANSSEN; E. PREMEREUR; W. VANDUFFEL; W. VAN PAESSCHEN. *KU Leuven, KU Leuven, Massachusetts Gen. Hosp., Harvard Med. Sch.*

2:00 W4 **419.06** ▲ Grouping inter-ictal and pre-ictal epileptic states through a complex networks approach. K. GUARIN; M. LE VAN QUYEN; M. VALDERRAMA*. *Univ. Distrital Francisco José de Cáldas, Inst. du Cerveau et de la Moelle Épinière, Univ. of Los Andes.*

3:00 W5 **419.07** Hidden patterns might reveal new synchronies in biological distributed information networks: Examples from human intracerebral recordings and artificial data. A. PRINCIPE*; A. TAUSTE-CAMPO; G. DECO; R. ROCAMORA-ZUÑIGA. *Hosp. Del Mar, Univ. Pompeu Fabra.*

4:00 W6 **419.08** ● Identifying the epileptogenic zone using directed information. R. MALLADI*; G. P. KALAMANGALAM; N. TANDON; B. AAZHANG. *Rice Univ., Univ. of Texas Hlth. Sci. Ctr., Univ. of Texas Hlth. Sci. Ctr.*

1:00 W7 **419.09** The spatiotemporal characteristics of epileptiform activity in the dentate gyrus. B. J. WRIGHT*; M. JACKSON. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

2:00 W8 **419.10** *In vivo* low intensity optogenetic train stimulation in the mouse hippocampus produces epileptiform afterdischarges. F. BERGLIND*; M. KOKAIA. *Epilepsy Center, Lund Univ.*

3:00 W9 **419.11** Stochastic determinants of transitions to and from seizure states in a computational network model. W. B. SWIERCZ*; K. P. LILLIS; K. J. STALEY. *Massachusetts Gen. Hosp., Harvard Med. Sch.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 W10 **419.12** Transition mechanisms from nonsynaptic epileptiform activity to spreading depression. A. G. ALMEIDA*; A. M. RODRIGUES; M. F. MIRANDA; L. C. SANTOS; C. A. SCORZA; F. A. SCORZA; E. A. CAVALHEIRO. *UFSJ, UNIFESP.*

1:00 W11 **419.13** Point process modeling of human seizures. G. M. FIDDYMENT*; U. T. EDEN; S. S. CASH; M. A. KRAMER. *Boston Univ., Boston Univ., Harvard Med. Sch. and Massachusetts Gen. Hosp.*

2:00 W12 **419.14** ▲ Network burst dynamics under heterogeneous cholinergic modulation of neural firing properties and synaptic connectivity. S. KNUDSTRUP; V. BOOTH*; M. ZOCHOWSKI. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

3:00 W13 **419.15** Abnormal metabolic connectivity in the pilocarpine-induced epilepsy rat model: A multiscale network analysis based on persistent homology. H. CHOI; Y. KIM; H. KANG; H. LEE; H. IM; D. HWANG; Y. LEE; E. E. KIM; J. CHUNG; D. LEE*. *Seoul Natl. Univ. Hosp., Seoul Natl. Univ. Boramae Med. Ctr., Seoul Natl. Univ., Seoul Natl. Univ., Seoul Natl. Univ. Col. of Med.*

4:00 W14 **419.16** Environmental enrichment improves hippocampal networks in animals with malformations of cortical development. A. E. HERNAN*; M. LUCAS; K. JENKS; J. BARRY; M. TESTORF; P. LENCK-SANTINI; G. L. HOLMES; R. C. SCOTT. *Univ. of Vermont Col. of Med., Dartmouth Col., Univ. Col. London.*

1:00 W15 **419.17** Modeling of neocortical neural dynamics during human focal seizures. E. C. HO*; W. TRUCCOLO. *Brown Univ., Ctr. for Neurorestoration and Neurotechnology.*

2:00 W16 **419.18** Dynamic functional reconfiguration in human epileptic networks. A. KHAMBHATI*; B. LITT; D. S. BASSETT. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

3:00 W17 **419.19** Multiscale wave propagation during human seizures. L. MARTINET*; O. J. AHMED; E. N. ESKANDAR; S. S. CASH; M. A. KRAMER. *Boston Univ., Massachusetts Gen. Hosp., Massachusetts Gen. Hosp.*

4:00 W18 **419.20** The effects of altering intra- and interhemispheric excitability on the bilateral propagation of epileptiform events and hemodynamic responses in rats. H. MA*; A. G. S. DANIEL; M. ZHAO; T. H. SCHWARTZ. *Weill Cornell Med. Col.*

POSTER

420. Ischemia: Cellular Mechanisms and Neuroprotection III

Theme C: Disorders of the Nervous System

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

1:00 W19 **420.01** Axonal injury and behavioral deficits after ischemic stroke in the sensorimotor cortex of channelrhodopsin-2 transgenic mice. M. SONG; X. GU; L. WEI; S. YU*. *Emory Univ. Sch. of Med., Emory Univ.*

2:00 W20 **420.02** Adulthood protein-energy malnutrition augments stroke-induced abnormalities in forelimb function in rats. M. ALAVERDASHVILI*; P. G. PATERSON. *Univ. of Saskatchewan.*

3:00 W21 **420.03** An activated protein C analog promotes survival, migration and differentiation of human neural progenitor cells in ischemic mouse cerebral cortex. Y. WANG*; Z. ZHAO; G. SI; S. REGE; J. GRIFFIN; B. ZLOKOVIC. *Keck Sch. of Medicine, USC, The Scripps Res. Inst.*

4:00 W22 **420.04** Evaluating the clinical significance of serum Progranulin levels in patients with acute cerebral infarction. J. LI*; S. LIU; Y. ZHAO; Z. Z. WEI; Y. ZHANG; Y. LV; S. YU; L. WEI. *Beijing Friendship Hosp., Emory Univ. Sch. of Med.*

1:00 W23 **420.05** Activity-dependent formation of new premotor connections in the post-stroke brain. E. H. NIE*; G. COPPOLA; S. T. CARMICHAEL. *UCLA.*

2:00 W24 **420.06** Effects of Memantine on NO production, hydroxyl radical metabolism during cerebral ischemia and reperfusion in mice. T. SASAKI*; T. FURUYA; Y. ITO; M. YAMASATO; R. NISHIOKA; A. TANAKA; N. ARAKI. *Saitama Med. Univ.*

3:00 W25 **420.07** Tyrosine phosphorylation of Kv2.1 channel contributes to neuronal cell death during brain ischemia. M. SONG*; K. PARK. *Kyung Hee Univ.*

4:00 W26 **420.08** Stem cell neural repair after white matter stroke. I. L. LLORENTE*; J. CINKORNPUMIN; W. E. LOWRY; S. T. CARMICHAEL. *Univ. of California, Los Angeles.*

1:00 W27 **420.09** Vulnerable vasculature and increased inflammation contribute to exacerbation of transient focal ischemia in a genetic mouse model of type 1 diabetes. A. C. LO*; A. K. W. LAI. *Dept. of Ophthalmology, The Univ. of Hong Kong, The Univ. of Hong Kong.*

2:00 W28 **420.10** Alterations of GABAA receptor trafficking in the Oxygen-Glucose Deprivation *in vitro* model of cerebral ischemia. M. MELE; M. ASPROMONTE; C. B. DUARTE*. *Ctr. Neurosci Cell Biol, Univ. Coimbra, Univ. of Sannio.*

3:00 W29 **420.11** Endothelial progenitor cells protect ischemic cell damage after cerebral infarction. T. NAKAYAMA*; E. NAGATA; H. MASUDA; S. KOHARA; N. YUZAWA; Y. TAKAHARI; T. ASAHARA; S. TAKIZAWA. *Tokai Univ., Tokai Univ. Sch. of Med., Tokai Univ. Sch. of Med., Tokai Univ. Sch. of Med.*

4:00 W30 **420.12** ● Critical role of E2-25K/HIP2 in ischemic injury. E. JEONG; S. SONG; Y. JUNG*. *Seoul Natl. Univ., Harvard Med. Sch.*

1:00 W31 **420.13** Effect of a cell therapy on neuropathological and neurorestorative processes following ischemic damage in rhesus monkey motor cortex. M. E. ORCZYKOWSKI*; M. L. MCBURNIE; F. MORTAZAVI; D. L. ROSENE; T. L. MOORE. *Boston Univ. Sch. of Med., Tufts Univ. Sch. of Med.*

2:00 W32 **420.14** Longitudinal *in vivo* imaging of thalamocortical projections after stroke. K. A. TENNANT*; S. L. TAYLOR; C. E. BROWN. *Univ. of Victoria.*

3:00 W33 **420.15** ▲ Changes in Axin2 expression following white matter ischemic stroke in mice. M. E. REITMAN*; S. ROSENZWEIG; T. CARMICHAEL. *UCLA.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 W34 **420.16** Gene expression in peripheral immune cells following cardioembolic stroke is sexually dimorphic. B. STAMOVA*; G. JICKLING; B. ANDER; X. ZHAN; D. LIU; R. TURNER; C. HO; J. KHOURY; C. BUSHNELL; A. PANCIOLI; E. JAUCH; J. BRODERICK; F. R. SHARP. *UC Davis Med. Ctr. MIND Inst., Cincinnati Children's Hosp. Med. Center, Univ. of Cincinnati, Wake Forest Univ. Med. Ctr., dDepartment of Emergency Medicine, Univ. of Cincinnati, Div. of Emergency Medicine, Med. Univ. of South Carolina, fUniversity of Cincinnati Neurosci. Institute, Dept. of Neurol.*

1:00 W35 **420.17** Ephrins are responsible for differing astrocytic response in the post-ischemic infant and adult primate brain. L. TEO*; J. BOURNE. *Australian Regenerative Medicine Institute.*

2:00 W36 **420.18** iPS cells-derived astrocytes from subjects with Monge's disease are vulnerable to hypoxia/ischemia. H. YAO*; H. ZHAO; G. G. HADDAD. *UCSD, UCSD, Rady Children's Hosp.*

3:00 X1 **420.19** Phenotypic and transcriptomic astrocyte heterogeneity in the uninjured and post-stroke brain. A. J. GLEICHMAN*; M. V. SOFRONIEW; S. T. CARMICHAEL. *UCLA.*

POSTER

421. Traumatic Brain Injury: Neurogenesis and Neurophysiology

Theme C: Disorders of the Nervous System

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

1:00 X2 **421.01** In the wake of diffuse traumatic brain injury, enduring dendritic hypertrophy within the basolateral amygdala. A. N. HOFFMAN; J. B. ORTIZ; T. C. THOMAS; J. LIFSHITZ; C. D. CONRAD*. *Arizona State Univ., UCLA, UCLA, Univ. of Arizona Col. of Med., Phoenix Children's Hosp., Phoenix VA Healthcare Syst., Arizona State Univ.*

2:00 X3 **421.02** Time-sensitive molecular mechanisms underlying post-TBI remodeling of the inhibitory synaptic network. P. N. LIZHNYAK*; P. DE DOMENICO; A. K. OTTENS. *Virginia Commonwealth Univ., Univ. of Messina.*

3:00 X4 **421.03** Loss and recovery of olfactory function induced by excitotoxicity in rats as a model for secondary neuronal degeneration in Traumatic Brain Injury: Role of adult neurogenesis. C. A. MARIN*; I. TEJERO; I. ALOBID; J. BERENGUER; M. BERNABEU; S. CENTELLES; S. LAXE; E. LEHRER; F. MARIÑO-SÁNCHEZ; J. MULLOL. *IDIBAPS NIF: Q-5856414G, IDIBAPS, Hosp. Clin., Inst. Guttmann.*

4:00 X5 **421.04** Regulation of newborn neuron survival and the inflammatory cell response after traumatic brain injury by suppressor of cytokine signalling 2 (SOCS2). H. S. BASRAI; K. J. CHRISTIE; A. M. TURNLEY*. *The Univ. of Melbourne.*

1:00 X6 **421.05** Simulated blast overpressure-induced astrocyte injury in an acute brain slice model. M. A. KING*; S. CANCHI; Y. HONG; J. FLINT; M. SARNTINORANONT; G. SUBHASH. *Univ. Florida, DVA Med. Ctr., Univ. Florida, Univ. Florida.*

2:00 X7 **421.06** Matrix metalloproteinase-9 and osteopontin mediation of cellular response in the olfactory bulb during trauma-induced synaptogenesis. M. A. POWELL*; P. A. TRIMMER; T. M. REEVES; L. L. PHILLIPS. *Virginia Commonwealth Univ.*

3:00 X8 **421.07** Mild traumatic brain injury (TBI) *in vitro:* Network activity changes and parameters of recovery. D. SMITH*; G. W. GROSS. *Ctr. For Network Neurosci., Ctr. For Network Neurosci.*

4:00 X9 **421.08** 2-photon *in vivo* imaging of impaired balance between excitation/inhibition and acute vascular trauma in sensory barrel cortex correlates with growth of microinfarcts following open head CCI injury in mice. M. K. JAISWAL*; F. W. LISCHKA, Ph.D; X. XU; Z. GALDZICKI, Ph.D. *Ctr. for Neurosci. and Regenerative Med., USUHS, Sch. of Med.*

1:00 X10 **421.09** Increased potassium current after mild traumatic brain injury. J. SUN; A. HANELL; K. M. JACOBS*. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

2:00 X11 **421.10** Blockade of the N-type voltage gated calcium channel reduces intracellular calcium accumulation following injury visualized using the gene-encoded calcium sensor GCaMP6. S. HUANG*; G. G. GURKOFF; R. J. GARAJEHDAGHI; L. TIAN; B. G. LYETH; R. F. BERMAN. *Drexel Univ. Col. of Med., Univ. of California, Davis, Univ. of California, Davis.*

3:00 X12 **421.11** Injury-induced electric fields drive astrocyte reactivity *in vitro.* M. L. BAER*; S. C. HENDERSON; R. J. COLELLO. *Virginia Commonwealth Univ.*

4:00 X13 **421.12** ● Post-traumatic switch in constitutive toll-like receptor 4 modulation of dentate excitability. A. A. KORGAONKAR*; Y. LI; V. SANTHAKUMAR. *Rutgers the state university.*

1:00 X14 **421.13** The effect of repeated binge alcohol combined with TBI on the subventricular zone microenvironment. S. T. TON*; I. C. VAAGENES; S. TSAI; D. J. SHEPHERD; V. A. HUSAK; D. C. NOCKELS; G. L. KARTJE. *Loyola Univ. Chicago, Hines VA Hosp.*

2:00 X15 **421.14** Heterogeneous TBI models reveal differential effects in the SVZ and divergent sonic hedgehog (Shh) signaling pathways in neuronal and oligodendroglial progenitors. A. J. MIERZWA; G. M. SULLIVAN; L. A. BEER; S. AHN; R. C. ARMSTRONG*. *USUHS, Ctr. for Neurosci. and Regenerative Med., Eunice Kennedy Shriver Natl. Inst. of Child Hlth. and Human Development, Natl. Inst. of Hlth.*

3:00 X16 **421.15** Heme Oxygenase 1 and Lipocalin 2 as potential modulators of vascular disruption after traumatic brain injury. N. H. RUSSELL*; L. L. PHILLIPS. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

4:00 X17 **421.16** Deep brain stimulation: underlying neural mechanisms for recovery from traumatic brain injury. H. KATNANI*; J. ARONSON; M. THOMBS; E. ESKANDAR. *Massachusetts Gen. Hosp.*

1:00 X18 **421.17** Recovery of serotonin axons following a neocortical stab injury. S. E. DOUGHERTY*; D. J. LINDEN. *Johns Hopkins Univ.*

2:00 X19 **421.18** The role of estrous stage cycle on synaptic transmission and behavior in female mice following mild traumatic brain injury. K. A. FOLWEILER*; C. CRUZ; A. S. COHEN. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

422. Spinal Cord Injury: Animal Models and Human Studies

Theme C: Disorders of the Nervous System

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

1:00 X20 **422.01** Changes in temporal and regional protein expression of peroxisome proliferator activated receptors (PPARs) after thoracic spinal contusive injury in rats. J. OH; Y. KIM*; Y. YOON. *Korea University, Col. of Medicine, Physiol.*

2:00 X21 **422.02** Leveraging the VISION-SCI database to identify conserved features of forelimb function across species. J. L. NIELSON*; E. S. ROSENZWEIG; E. SALEGIO; K. D. ANDERSON; R. R. ROY; G. COURTINE; V. R. EDGERTON; O. STEWARD; M. H. TUSZYNSKI; M. S. BEATTIE; J. C. BRESNAHAN; A. R. FERGUSON. *Univ. of California San Francisco, Univ. of California San Diego, Univ. of Miami, Univ. of California Los Angeles, Swiss Federal Inst. of Technol., Univ. of California Irvine, VAMC.*

3:00 X22 **422.03** Magnetic spinal cord pulsation-cancelation injection system for region-specific vector and cell delivery: A preclinical study in naïve and spinally-injured minipigs. M. MARSALA*; S. JUHAS; M. HRUSKA PLOCHAN; D. DOLEZALOVA; A. MIYANOHARA; S. MARSALA; J. JUHASOVA; J. MOTLIK. *UCSD, Inst. of Animal Physiol. and Genet.*

4:00 X23 **422.04** Gastrointestinal peptide dysregulation in acute spinal cord injury. M. C. P. GERAEDTS; M. S. MCLEAN; G. M. HOLMES*. *Penn State Univ. Col. of Med.*

1:00 X24 **422.05** Metabolomic profile of cerebrospinal fluid and serum from acutely injured spinal cord patients. F. STREIJGER*; Y. WU; J. MAC-THIONG; S. PARENT; S. CHRISTIE; C. BAILEY; L. LI; B. K. KWON. *ICORD, UBC, Univ. of Alberta, Div. of Orthopedic Surgery, Hôpital Sainte-Justine, Div. of Neurosurgery, Halifax Infirmary, Div. of Orthopaedics, St. Joseph's Hlth. Ctr., Combined Neurosurgical and Orthopaedics Spine Program (CNOSP).*

2:00 Y1 **422.06** Serum and cerebrospinal fluid microrna biomarkers in a porcine model of spinal cord injury. S. TIGCHELAAR*; F. STREIJGER; C. NISLOW; S. SINHA; N. MANOUCHEHRI; K. SO; K. VAN KEUREN-JENSEN; I. MALENCIA; A. COURTRIGHT; T. BEECROFT; B. KWON. *ICORD, Pharmaceut. Sci., Translational Genomics, Combined Neurosurgical and Orthopaedic Spine Program (CNOSP).*

3:00 Y2 **422.07** Characterization of peripheral blood mononuclear cells in chronic spinal cord injury subjects. O. BLOOM*; A. PAPATHEODOROU; E. NIKULINA; A. STEIN. *Feinstein Institute, Hofstra North Shore LIJ Sch. of Med., Feinstein Inst. for Med. Res., Hofstra North Shore LIJ Sch. of Med.*

4:00 Y3 **422.08** In toto imaging of AAV-labeled axons after spinal cord injury using light sheet and confocal microscopy. C. SODERBLOM*; D. LEE; P. TSOULFAS; J. K. LEE. *Univ. of Miami Miller Sch. of Med.*

1:00 Y4 **422.09** Detecting acute neuronal injury with diffusion MRI: A simulation study. M. D. BUDDE*. *Med. Col. of Wisconsin.*

2:00 Y5 **422.10** Combined neurotrophin treatment promotes regeneration of multiple sensory modalities after dorsal rhizotomy. L. KELAMANGALATH*; X. TANG; Y. SON; G. M. SMITH. *Temple Univ. school of Med.*

3:00 Y6 **422.11** The effect of spinal cord injury on bladder-specific nodose ganglion neurons. A. N. HERRITY*; J. C. PETRUSKA; D. P. STIRLING; C. H. HUBSCHER. *Univ. of Louisville, Univ. of Louisville, Univ. of Louisville, Univ. of Louisville.*

4:00 Y7 **422.12** Effects of repetitive transcranial magnetic stimulation on the functional recovery of patients with central cord syndrome. J. HYUN*; T. KIM; S. KIM. *Dankook Univ. Col. of Med., Dankook Univ., Dankook Univ.*

1:00 Y8 **422.13** An animal model for spinal cord concussion and repeated injury. Y. JIN*; J. BOUYER; C. HAAS; I. FISCHER. *Drexel Univ. Col. of Medicine, Dept of Neurobio. and Anat.*

2:00 Y9 **422.14** ▲ Lewis, Fischer 344 and Sprague-Dawley rats display differences in lipid peroxidation, motor recovery and neuronal survival after spinal cord injury. H. MESTRE*; M. RAMIREZ; E. GARCIA; S. MARTIÑÓN; Y. CRUZ; M. G. CAMPOS; A. IBARRA. *Univ. Anahuac Mexico Norte, Proyecto CAMINA.*

3:00 Y10 **422.15** The role of mTOR and STAT3 in the intrinsic growth of rubrospinal neurons. K. M. KEEFE*; Y. LIU; G. SMITH. *Temple Univ.*

4:00 Y11 **422.16** Effect of the ketogenic diet on expression of anti-inflammatory genes in a rodent model of SCI. X. WU*; O. JANG; J. ZHU; J. LIU; W. TETZLAFF; F. STREIJGER. *ICORD, Univ. of British Columbia.*

1:00 Y12 **422.17** Bilateral contusion-compression model of incomplete traumatic cervical spinal cord injury. N. FORGIONE*; S. K. KARADIMAS; W. FOLTZ; K. SATKUNENDRARAJAH; A. LIP; M. G. FEHLINGS. *Univ. Hlth. Network, Univ. of Toronto, Princess Margaret Hosp., Univ. Hlth. Network.*

2:00 Y13 **422.18** Identification of genes related to ketogenic diet-induced beneficial functional and neuroprotective effects following SCI. W. TETZLAFF*; J. ZHU; S. CEN; J. LIU; A. HAEGERT; S. LE BIHAN; F. STREIJGER. *Univ. of British Columbia, Intl. Collaboration On Repair Discoveries (ICORD), UBC, Lab. for Advanced Genome Analysis, Vancouver Prostate Ctr.*

3:00 Y14 **422.19** The relevance of hyaluronidase-4 and astrocytes in a rat spinal cord hemisection model. Y. SHIMIZU*; T. OKUDA; N. KAWAHARA; N. KATO; Y. ISHIGAKI; T. MATSUMOTO. *Kanazawa Med. Univ., Kanazawa Med. Univ., Kanazawa Med. Univ.*

4:00 Y15 **422.20** Inter-regional intrinsic brain activity effects in pediatric spinal cord injury. L. KRISA*; M. MULCAHEY; D. MIDDLETON; F. MOHAMED; T. ZEFFIRO. *Thomas Jefferson Univ., Temple Univ., Neurometrika.*

1:00 Y16 **422.21** Spinal cord injury-induced plasticity in sensory nociceptive processing and autonomic function. K. K. MARTIN; D. J. NOBLE; S. HOCHMAN; S. M. GARRAWAY*. *Emory Univ. Sch. of Med.*

2:00 Y17 **422.22** The effect of intrapspinal microstimulation parameters on movement thresholds in normal and spinal cord-injured rats. S. B. FROST*; C. L. DUNHAM; S. BARBAY; D. W. MCNEAL; D. KRIZSAN-AGBAS; M. K. WINTER; D. J. GUGGENMOS; R. J. NUDO. *Univ. Kansas Med. Ctr., Univ. Kansas Med. Ctr., Univ. Kansas Med. Ctr.*

3:00 Y18 **422.23** Delivery of autologous neurotrophin-producing fibroblasts promotes locomotion in the chronic spinal cat. A. J. KRUPKA*; J. DASHKOVA; I. FISCHER; M. A. LEMAY. *Drexel Univ. Col. of Med., Temple Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 Y19 **422.24** Quantitative proteomic analysis of cerebrospinal fluid after acute human spinal cord injury. N. MANOUCHEHRI*; J. C. ROGALSKI; F. STREIJGER; S. PERRY; C. BORCHERS; J. MAC-THIONG; S. PARENT; S. D. CHRISTIE; C. S. BAILEY; R. F. BALSHAW; L. J. FOSTER; B. K. KWON. *UBC, Univ. of British Columbia, Univ. of British Columbia, Univ. of Victoria, Hôpital Sainte-Justine, Halifax Infirmary, St. Joseph's Hlth. Ctr., NCE CECR PROOF Ctr. of Excellence, Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia.*

1:00 Y20 **422.25** Chronic monitoring of intraparenchymal pressure and spinal cord blood flow following a contusive thoracic SCI in a porcine model. K. SO*; F. STREIJGER; N. MANOUCHEHRI; J. H. T. LEE; J. SOICHER; P. A. CRIPTON; B. K. KWON. *UBC - ICORD, UBC.*

2:00 Y21 **422.26** Olfactory ensheathing cells and fibroblasts differ their modification of the lesion site after complete spinal cord transection. R. R. KHANKAN; K. G. GRIFFIS; D. N. PEREZ; J. R. HAGGERTY-SKEANS; H. ZHONG; R. R. ROY; V. R. EDGERTON; P. E. PHELPS*. *UCLA, Terasaki Life Sci. Building, UCLA, Terasaki Life Sci. Building.*

3:00 Y22 **422.27** The roles of CCAAT/enhancer binding protein delta (CEBPD) in astrogliosis after spinal cord injury. S. WANG*; N. CHIU; J. HSU; J. WANG. *The Inst. of Basical Med. Sci. of Natl. Cheng Kung Univ., Dept. of Pharmacol., Dept. of Cell Biol. and Anat., Inst. of Bioinformatics and Biosignal Transduction.*

4:00 Y23 **422.28** Spinal injury-induced spasticity in complete Th9 transection model in rats: Modulation by spinal glycine transporter 2 antisense oligonucleotide. K. KAMIZATO*; M. MARSALA; C. MAZUR; O. KAKINOHANA. *UCSD, Isis Pharmaceuticals Inc.*

1:00 Y24 **422.29** Immune responses following transplantation of expanded autologous schwann cells for spinal cord injury in minipigs. A. J. SANTAMARIA*; F. D. BENAVIDES; L. G. GUADA; Y. NUNEZ; A. BROOKS; J. P. SOLANO; J. D. GUEST. *Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med., Univ. of Miami, Miller Sch. of Med.*

2:00 Y25 **422.30** ● Clinical and Surgical Predictors of Perioperative Complications in patients with degenerative cervical myelopathy: Results from the multicenter, prospective AOSpine International study on 479 patients. L. TETREAULT*; N. ALSHAFAI; P. COTE; M. FEHLINGS. *Univ. of Toronto, Toronto Western Hosp., Univ. of Ontario Inst. of Technol.*

POSTER

423. Nerve Agents and Warfare Illness

Theme C: Disorders of the Nervous System

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

1:00 Y26 **423.01** Chemical warfare nerve agent induced gene expression alterations in blood: Indications for CNS-driven systemic injury. C. C. ROTHWELL; A. A. MELBER; C. S. HOFMANN; J. W. SEKOWSKI; H. M. HOARD-FRUCHEY*. *USAMRICD, US Army Edgewood Chem. Biol. Ctr.*

2:00 Y27 **423.02** Development of an aging rat model of nerve agent exposure for the evaluation of medical countermeasures. M. C. MOFFETT*; A. R. FURMAN; J. E. SCHWARTZ; M. F. STONE; G. E. GARCIA; L. A. LANGE. *USAMRICD.*

3:00 Y28 **423.03** Omic approaches identify lipid disturbances in mice exposed to Gulf War agents at a chronic 16 months post-exposure time-point. L. ABDULLAH*; J. EVANS; J. REED; G. CRYNEN; H. MONTAGUE; A. GONZALEZ; M. CROCKER; S. BAUMANN; Z. ZAKIRVA; T. EMMERICH; R. PELOT; G. AIT-GHEZALA; M. MULLAN; F. CRAWFORD. *Roskamp Inst., James A. Haley VA Hosp., Agilent Technologies.*

4:00 Y29 **423.04** Testing for dose-dependent effects on object- and location memory following clinically relevant whole brain irradiation in adult rats. D. R. RIDDLE*; M. E. FORBES; M. PAITSEL; J. D. BOURLAND. *Wake Forest Sch. of Med., Western Michigan Univ. Homer Stryker M.D. Sch. of Med., Wake Forest Sch. of Med.*

1:00 Y30 **423.05** Cognitive defects and tau protein alterations in adult mice following neonatal low dose co-exposure to radiation and ketamine. S. BURATOVIC*; B. STENERLÖW; A. FREDRIKSSON; S. SUNDELL-BERGMAN; P. ERIKSSON. *Uppsala Univ., Swedish Univ. of Agr. Sci.*

2:00 Y31 **423.06** Reduced carbachol-induced β/γ oscillations in CA3 region of hippocampus after post-natal contamination of uranium in adult rat. C. DINOCOURT*; J. STEFANI; C. ELIE; P. LESTAEVEL; I. DUBLINEAU; P. GOURMELON. *IRSN.*

3:00 Y32 **423.07** Is neurogenesis altered after chronic internal contamination of uranium during brain development? M. LEGRAND*; C. IBANEZ; P. LESTAEVEL; J. STEFANI; N. FLORES; P. ERIKSSON; C. DINOCOURT. *IRSN, Uppsala Univ.*

4:00 Z1 **423.08** The effect of aging on neural stem / progenitor cell populations after radiation. Z. CHENG*; Y. LI; S. WONG. *Sunnybrook Res. Inst., Univ. of Toronto.*

1:00 Z2 **423.09** ● Anatabine ameliorates cognitive impairment and neuropathological deficits in a mouse model of Gulf War Illness. G. AIT-GHEZALA*; Z. ZAKIROVA; B. MOUZON; M. TWEED; D. PARIS; V. MATHURA; F. CRAWFORD; M. MULLAN. *Roskamp Inst., The Open University,Walton Hall, Milton Keynes,, James A. Haley Veteran's Hospital, 13000 Bruce B. Downs Blvd., Rock Creek Pharmaceuticals,.*

2:00 Z3 **423.10** Galantamine as an effective pre-treatment countermeasure against high doses of soman: Comparison with pyridostigmine efficacy. Y. ARACAVA*; E. F. R. PEREIRA; M. LANE; R. J. CLARK; G. W. BASINGER, Jr.; E. X. ALBUQUERQUE. *Univ. Maryland Sch. Med., Countervail Corp.*

3:00 Z4 **423.11** Effects of galantamine post-treatment on nerve agent-induced EEG changes and lethality of rats. E. A. ALEXANDROVA*; Y. ARACAVA; J. D. PESCRILLE; L. D. RICHARDSON; B. GUSHEN; E. F. R. PEREIRA; E. X. ALBUQUERQUE. *Univ. Maryland Sch. of Med.*

4:00 Z5 **423.12** Prenatal exposure to Chlorpyrifos leads to reduced msk expression in the dentate gyrus: Implications for regulation of histone acetylation. S. W. TODD*; W. R. RANDALL; E. F. R. PEREIRA; E. X. ALBUQUERQUE. *Univ. of Maryland Sch. Med., Univ. of Maryland Sch. Med.*

1:00 Z6 **423.13** *In utero* exposure to the pesticide chlorpyrifos leads to augmented gabaergic synaptic transmission and gliosis in the guinea pig hippocampus. R. D. BURKE*; E. X. ALBUQUERQUE; E. F. R. PEREIRA. *Univ. of Maryland Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 Z7 **423.14** Corticosterone enhances chlorpyrifos-induced neuroinflammation. J. P. O'CALLAGHAN*; K. A. KELLY; D. B. MILLER; S. M. LASLEY. *Centers For Dis. Control and Prevention, U Illinois Coll Med.*

3:00 Z8 **423.15** The pharmacokinetics of galantamine in adult male rats is not affected by the organophosphorus nerve agent sarin or by atropine, pralidoxime, and diazepam. W. P. FAWCETT; R. H. COOMBES; Y. ARACAVA; E. J. WAKAYAMA; G. W. BASINGER, Jr; E. X. ALBUQUERQUE; E. F. PEREIRA*. *Univ. Maryland Sch. Med., US Dept. Hlth. and Human Services, Countervail Corp.*

4:00 Z9 **423.16** Long-lasting histone acetylation of pyramidal neurons are detected in the hippocampus of young adult guinea pigs exposed *in utero* to the organophosphorus pesticide chlorpyrifos. W. R. RANDALL*; E. F. R. PEREIRA; E. X. ALBUQUERQUE. *Univ. Maryland Sch. Med., Univ. Maryland Sch. Med.*

1:00 Z10 **423.17** Comparison of brain injury following soman exposure by inhalation and subcutaneous injection. R. K. KAN*; J. A. LEUSCHNER; B. J. WONG; M. W. PERKINS; T. L. DAO; J. L. DEVORAK; L. J. SHUMWAY; A. M. RODRIGUEZ; A. M. SCIUTO. *USAMRICD.*

2:00 Z11 **423.18** MicroRNA expression profiling reveals mRNA regulating specific signaling pathways in ventral hippocampus following nerve agent exposure. J. M. PIZARRO*; T. L. DAO; J. A. LEUSCHNER; S. W. KASKI; L. J. SHUMWAY; C. R. BRAUE; R. K. KAN. *United States Army Publ. Hlth. Command, USAMRICD.*

POSTER

424. Psychosis: Genetic Mechanisms

Theme C: Disorders of the Nervous System

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

1:00 Z12 **424.01** Effects of genetic liability to schizophrenia on intrinsic functional connectivity in the language network. S. KIM*; J. HUR; Y. YOON; C. LEE; J. KWON. *Seoul Natl. Univ., Seoul Natl. Univ. Hosp., Seoul Natl. Univ. Hosp.*

2:00 Z13 **424.02** Exploring neuropathological deficits and new drug targets for major psychiatric disorders using the Stanley Neuropathology Consortium datasets and RNA-Seq data. S. KIM*. *Stanley Med. Res. Inst.*

3:00 Z14 **424.03** Cis-acting regulation of a novel AS3MT transcript by a genome-wide supported risk variant for schizophrenia. M. LI*; R. TAO; A. E. JAFFE; F. ZHANG; C. LI; J. E. KLEINMAN; T. M. HYDE; J. SHIN; D. R. WEINBERGER. *Lieber Inst. For Brain Develop.*

4:00 Z15 **424.04** The DNA methylation profiles of the brain-derived neurotrophic factor (BDNF) gene are potent diagnostic biomarker in psychiatric disorders. M. FUCHIKAMI*; S. OKADA; S. YAMAWAKI; S. MORINOBU. *Hiroshima University, Dept. of Psychiatry, Dept. of Neuropsychiatry, Kochi Univ.*

1:00 Z16 **424.05** The molecular and cellular neurobiology of psychotic disorders. N. GUNHANLAR*; F. M. S. DE VRIJ; G. SHPAK; C. G. BOUWKAMP; B. LENDEMEIJER; L. GOUTY-COLOMER; M. GHAZVINI; T. M. W. Y. LI; V. BONIFATI; J. GRIBNAU; S. A. KUSHNER. *Erasmus MC, Erasmus MC, Erasmus MC.*

2:00 Z17 **424.06** ● Identifying targets of neuropsychiatric disease-associated transcription factors TCF4 and ZNF804A. V. L. REINHART*; S. XI; N. MATLUCK; C. SCHUBERT; T. A. LANZ. *Pfizer.*

3:00 Z18 **424.07** Evidence for the breakdown of neurotransmitter integration pathways in schizophrenia. A. DEVOR; W. K. THOMPSON; Y. WANG; P. SVENNINGSSON; A. J. SCHORK; V. ZUBER; C. CHEN; S. DJUROVIC; R. S. DESIKAN; L. K. MCEVOY; O. A. ANDREASSEN; A. M. DALE*. *UCSD, MGH/Harvard Med. Sch., UCSD, UCSD, Karolinska Inst., UCSD, Univ. of Oslo, Oslo Univ. Hosp., Oslo Univ. Hosp.*

4:00 Z19 **424.08** No abnormal hexanucleotide repeat expansion of C9ORF72 in Japanese schizophrenia patients. Y. YOSHINO*; Y. MORI; S. OCHI; S. UENO. *Neuropsychiatry, Ehime Univ. Grad. Sch. of Med.*

1:00 Z20 **424.09** Blood homocysteine and schizophrenia evaluated by a Mendelian randomization analysis. M. KINOSHITA*; S. NUMATA; A. TAJIMA; A. NISHI; I. IMOTO; T. OHMORI. *The Univ. of Tokushima Grad. School/ Inst. of Hlth. Biosci., The Univ. of Tokushima Grad. School/ Inst. of Hlth. Biosci.*

2:00 Z21 **424.10** Messenger and microRNA expression profiling in neurons and oligodendrocytes in schizophrenia and Parkinson's disease. S. A. MAUNEY*; K. C. SONNTAG; T. W. WOO. *McLean Hosp., McLean Hosp., Harvard Med. Sch., Beth Israel Deaconess Med. Ctr.*

3:00 Z22 **424.11** Clusterin immunoreactivity in the cerebral cortex in subjects with schizophrenia. K. M. ATHANAS*; S. DASDELEN; T. W. WOO. *McLean Hosp., Beth Israel Deaconess Med. Ctr., Harvard Med. Sch.*

4:00 Z23 **424.12** Serine Racemase (SRR) and schizophrenia risk: Functional genomic characterization of schizophrenia GWAS risk variants. R. BIRNBAUM*; F. ZHANG; T. M. HYDE; J. E. KLEINMAN; D. R. WEINBERGER. *Lieber Inst. For Brain Develop., Lieber Inst. for Brain Develop., Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med.*

1:00 Z24 **424.13** Maternal infection in mice leads different DNA methylation and gene expression between male and female offspring. Z. YU*; R. FUNAYAMA; K. UENO; N. NARIAI; K. KOJIMA; C. ONO; Y. KASAHARA; Y. KIKUCHI; M. NAGASAKI; K. NAKAYAMA; H. TOMITA. *Tohoku Univ., Tohoku Univ., Tohoku Univ., Tohoku Univ.*

2:00 Z25 **424.14** No evidence of association of schizophrenia-risk genotype in rs1625579 with expression of mir137 in postmortem human prefrontal cortex. N. FENG; V. IMAMOVIC; B. K. LIPSKA*. *NIH/NIMH.*

3:00 Z26 **424.15** Common variants for schizophrenia ascertained through genome-wide association with a cognitive endophenotype. A. B. ZHEUTLIN*; R. G. FORTGANG; K. M. HAUT; F. W. SABB; R. M. BILDER; N. FREIMER; E. D. LONDON; T. D. CANNON. *Yale Univ., Univ. of California - Los Angeles, Univ. of California - Los Angeles, Univ. of California - Los Angeles.*

4:00 Z27 **424.16** Exploring the genome in three dimensions in the prefrontal cortex: Discovering the functional relevance of non-coding regions of the genome. A. C. MITCHELL*; P. ROUSSOS; V. POTHULA; A. LESSARD; S. AKBARIAN. *Icahn Sch. of Med. at Mount Sinai, Univ. of Maryland Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 Z28 **424.17** Association of a GWAS schizophrenia risk DRD2 locus (an established antipsychotic target) with inefficient DLPFC activation during fMRI in healthy controls and in schizophrenia. E. RADULESCU*; Q. CHEN; J. H. CALLICOTT; V. S. MATTAY; D. R. WEINBERGER. *Lieber Inst. For Brain Develop., Natl. Inst. of Mental Health, NIH.*

2:00 Z29 **424.18** PDE10A isoform heterogeneity and expression within the human striatum. C. MACMULLEN; K. VICK; R. PACIFICO; R. L. DAVIS*, Prof. *The Scripps Res. Inst.*

3:00 Z30 **424.19** Polygenic risk scores for schizophrenia predict hippocampal function. Q. CHEN*; V. S. MATTAY; E. Y. XIAO; R. E. STRAUB; D. R. WEINBERGER. *Lieber Inst. For Brain Develop.*

4:00 Z31 **424.20** Functional characterization of L-type Calcium channel gene CACNA1C variants implicated in mood disorder genome wide association studies. S. S. BHAT*; R. J. SMITH; M. PRASAD; Y. CHANG; T. D. GOULD. *Univ. of Maryland Baltimore, Univ. of Maryland Baltimore, Univ. of Maryland Baltimore.*

1:00 Z32 **424.21** Altered expression of genes involved in immune and inflammatory response in drug-naïve first episode schizophrenia. B. CRESPO-FACORRO*; J. SAINZ; I. MATA; R. PEREZ-IGLESIAS; I. VARELA; M. ARRANZ; P. SUAREZ-PINILLA. *Dept. of Psychiatry. CIBERSAM. IDIVAL. Univer, IDIVAL, Inst. of Biomedicine and Biotech. of Cantabria (IBBTEC), Spanish Natl. Res. Council (CSIC), Dept. of Psychiatry. CIBERSAM.IDIVAL. Univ. of Cantabria, Dept. of Psychiatry. CIBERSAM. Univ. of Cantabria. Inst. of Psychiatry, King's Col. London, London, UK;, Inst. of Biomedicine and Biotech. of Cantabria (IBBTEC), Spanish Natl. Res. Council (CSIC), Univ. of Cantabria, Teaching and Res. Fndn. Mutua Terrassa, Univ. Hosp. Mutua Terrassa, Biomed. Res. Ctr. in Mental Hlth. Network (CIBERSAM),.*

2:00 Z33 **424.22** Epigenetic factors can dysregulate the GABA cell phenotype in schizophrenia. S. SUBBURAJU*; A. J. COLEMAN; F. M. BENES. *Mailman Res. Center, McLean Hosp.*

POSTER

425. Mood Disorders: Ketamine

Theme C: Disorders of the Nervous System

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

1:00 Z34 **425.01** ● A serotonin-dependent mechanism is essential for the protracted antidepressant-like effect of ketamine in a rat model of depression. K. G. DU JARDIN*; N. LIEBENBERG; H. MÜLLER; B. ELFVING; C. SANCHEZ; G. WEGENER. *Aarhus Univ., Lundbeck Res. USA, Inc.*

2:00 Z35 **425.02** Time-dependent metabolomic profiling of Ketamine drug action reveals hippocampal pathway alterations. K. WECKMANN; C. WEBHOFER; C. LABERMAIER; M. MÜLLER-SITZ; M. KIMURA*; C. W. TURCK. *Max Planck Inst. of Psychiatry.*

3:00 Z36 **425.03** Large-scale network effects of sub-anesthetic ketamine on macaques: New insight into the glutamatergic system for mood disorders. Q. LV; L. YANG; Z. WANG; G. LI; Z. SHEN; W. YU; Q. JIANG; B. HOU; J. PU; H. HU; Z. WANG*. *Inst. of Neurosci., Zhongshan Hosp.*

4:00 AA1 **425.04** ● PK profiles of ketamine dosing regimens used in preclinical studies of its anti-depressant-like action. W. A. ECKERT*, III; J. R. SHOBLOCK; J. E. MCDUFFIE; B. P. SCOTT; P. BONAVENTURE; M. A. LETAVIC; J. VEGAS; T. CROWLEY; X. JIANG; P. ZANNIKOS; J. B. SINGH; G. CHEN. *Janssen Res. & Development, L.L.C., Janssen Res. & Development, L.L.C., Janssen Res. & Development, L.L.C., Janssen Res. & Development, L.L.C.*

1:00 AA2 **425.05** Acute ketamine treatment induces long lasting behavioral effects in anxio-depressive mice. A. M. GARDIER*; I. MENDEZ-DAVID; T. PHAM; D. DAVID. *Faculte De Pharmacie.*

2:00 AA3 **425.06** Mechanisms underlying differential effectiveness of memantine and ketamine in rapid antidepressant responses. E. S. GIDEONS*; E. T. KAVALALI; L. M. MONTEGGIA. *UT-Southwestern Med. Ctr.*

3:00 AA4 **425.07** The mood stabilizer lithium ameliorates oxidative stress associated with acute ketamine-induced antidepressant-like effects. C. CHIU*; L. SCHEUING; H. LIAO; D. CHUANG. *NIMH, NIH.*

4:00 AA5 **425.08** Ketamine prevents alcohol-induced depressive-like behavior in rats. O. O. KALEJAIYE*; J. FORD; Y. TIZABI. *Howard Univ. Col. of Med.*

1:00 AA6 **425.09** ● Involvement of serotonergic system in the antidepressant-like effects of a metabotropic glutamate 2/3 receptor antagonist and ketamine. K. FUKUMOTO; M. IIJIMA; S. CHAKI*. *Taisho Pharmaceut. Co., Ltd.*

2:00 AA7 **425.10** Involvement of the ventral hippocampus in the antidepressant-like effect of ketamine: Behavioral and optogenetic studies. F. R. CARRENO*; M. DEGUZMAN; A. SHAH; D. J. LODGE; A. FRAZER. *Univ. Texas Hlth. Sci. Ctr-San Antonio.*

3:00 AA8 **425.11** Enantioselective effect of ketamine metabolites on serine racemase expression and function in 1321N1 and PC-12 cells. N. S. SINGH; R. K. PAUL; M. KHADEER; L. TOLL*; I. W. WAINER. *Natl. Inst. on Aging, Natl. Inst. of Hlth., Torrey Pines Inst. For Mol. Studies.*

4:00 AA9 **425.12** Determining the involvement of lactate in mediating antidepressant responses. M. ELSAYED*; J. PETIT; V. ELIGERT; P. J. MAGISTRETTI. *UNIL, EPFL, KAUST.*

POSTER

426. Mood Disorders: SSRIs

Theme C: Disorders of the Nervous System

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

1:00 AA10 **426.01** SSRI induced endogenous BDNF expression in Dentate Gyrus precisely regulates adult neurogenesis and anti-depressant effect. Z. MA*; L. F. PARADA. *UT Southwestern Med. Ctr., UT Southwestern Med. Ctr. at Dallas.*

2:00 AA11 **426.02** Exploring antidepressant-induced affective blunting in rats: Assessment of chronic fluoxetine administration on operant responding. K. MATAZEL*; R. J. RICE; A. L. PEHRSON; A. J. PRUS. *Northern Michigan Univ., Lundbeck Reseach USA, Inc.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 AA12 **426.03** ● Serotonin transport occupancy by S-citalopram and R/S-citalopram in the nonhuman primate brain: A [11C]MADAM PET study. S. J. FINNEMA*; C. HALLDIN; B. BANG-ANDERSEN; C. BUNDGAARD; L. FARDE. *Karolinska Institutet, H. Lundbeck A/S.*

4:00 AA13 **426.04** Tricyclic antidepressant amitriptyline acts on astrocytes leading to the increase in the FGF2 expression: A role of early growth response 1 signaling. N. KAJITANI; K. HISAOKA*; M. OKADA-TSUCHIOKA; M. HOSOI; C. SHIBASAKI; N. MORIOKA; Y. NAKATA; M. TAKEBAYASHI. *Inst. Clin. Res, Natl. Hosp Org Kure Med. Ctr., Dept. Pharmacol. Hiroshima Univ., Dept Psychiatry. Natl. Hosp Org Kure Med. Ctr.*

1:00 AA14 **426.05** Transcriptomic evidence for immaturity in the frontal cortex of mice treated with antidepressants. K. OHIRA*; H. HAGIHARA; R. TAKEUCHI; T. MIYAKAWA. *Fujita Hlth. Univ.*

2:00 AA15 **426.06** Cognitive assessments prospectively differentiate future responders and non-responders to selective serotonin reuptake inhibitor treatment among medication-naïve patients with major depressive disorder. M. M. HERZALLAH*; M. B. TAHA; J. Y. NATSHEH; M. A. SEHWAIL; M. A. GLUCK. *Rutgers, The State Univ., Al-Quds Univ., Rutgers, The State Univ. of New Jersey.*

3:00 AA16 **426.07** Selective serotonin reuptake inhibitor treatment response: Identification of affected molecular pathways in responder and non-responder mouse model. D. PARK; C. DOURNES; O. F. ALMEIDA*; M. B. MÜLLER-SITZ; C. W. TURCK. *Max Planck Inst. of Psychiatry.*

4:00 AA17 **426.08** Chronic fluoxetine induces the enlargement of perforant path synapse in the dentate gyrus: 3D ultrastructural analyses using FIB/SEM. Y. KITAHARA*; K. OHTA; T. SHUTO; M. KUROIWA; N. SOTOGAKU; H. HASUO; A. TOGO; K. NAKAMURA; A. NISHI. *Dep. of Pharmacol., Kurume Univ. Sch. of Med., Dep. of Anat., Kurume Univ. Sch. of Med., Dep. of Physiol., Kurume Univ. Sch. of Med., Ctr. Unit of Electron Microscopy., Kurume Univ. Sch. of Med.*

1:00 AA18 **426.09** ● Diving while taking an antidepressant: A case report of a diver with depression. D. A. DANCZYK; J. V. PARDO*; D. F. COLVARD. *VAMC, DivePsych.*

2:00 AA19 **426.10** ● Neurodevelopment of infants with prenatal SSRI exposure. S. C. JHA*; S. MELTZER-BRODY; S. WOOLSON; R. M. HAMER; M. AHN; H. ZHU; R. J. STEINER; M. STYNER; J. H. GILMORE; R. C. KNICKMEYER. *Univ. of North Carolina At Chapel Hill, Univ. of North Carolina At Chapel Hill, Univ. of North Carolina At Chapel Hill, Univ. of North Carolina At Chapel Hill.*

3:00 AA20 **426.11** Fluoxetine treatment ameliorates adult-onset depression induced by perinatal arsenic exposure via a neurogenic mechanism. C. R. TYLER*; B. SOLOMON; A. M. ALLAN. *Univ. of New Mexico.*

4:00 AA21 **426.12** Association between the COMT Val158Met polymorphism and the clinical response to SSRI or SSRI with antipsychotics in obsessive-compulsive disorder. H. UMEHARA*; S. NUMATA; A. TAJIMA; M. KINOSHITA; S. NAKAAKI; I. IMOTO; S. SUMITANI; T. OHMORI. *The Univ. of Tokushima Grad. Sch., The Univ. of Tokushima Grad. Sch., Keio Univ. Sch. of Med.*

1:00 AA22 **426.13** ▲ Region-specific induction of FosB isoforms in mouse brain after stress or chronic fluoxetine exposure. M. A. THIBAULT; A. L. EAGLE; S. KASKA; E. J. NESTLER; M. S. MAZEI-ROBISON; V. VIALOU; A. ROBISON*. *Michigan State Univ., Icahn Sch. of Med. at Mount Sinai, Univ. Pierre et Marie Curie.*

POSTER

427. Post-Traumatic Stress Disorder and Brain Trauma

Theme C: Disorders of the Nervous System

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

1:00 AA23 **427.01** Cognitive aging in retired professional athletes. A. HINDS*; J. J. LEDDY; J. BAKER; T. SHARMA; B. S. WILLER. *Univ. at Buffalo.*

2:00 AA24 **427.02** Functional differences in the brain following trauma: A quantitative meta-analysis of fMRI studies in post-traumatic stress disorder. E. A. STARK*; C. E. PARSONS; A. STEIN; H. MCMANNERS; A. EHLERS; M. L. KRINGELBACH. *Univ. of Oxford, Univ. of Oxford, Univ. of Oxford.*

3:00 BB1 **427.03** Concurrent measurement of Neuropeptide Y (NPY) in cerebrospinal fluid (CSF), plasma, and saliva from combat veterans with and without posttraumatic stress disorder (PTSD). R. SAH*; N. N. EKHATOR; L. JEFFERSON-WILSON; P. HORN; T. D. GERACIOTI. *Univ. Cincinnati, Veterans Affairs Med. Ctr., Univ. of Cincinnati.*

4:00 BB2 **427.04** Behavioral and brain responses to ambiguous facial expressions in posttraumatic stress disorder. L. M. SHIN*; M. B. VANELZAKKER; L. K. STAPLES-BRADLEY; S. DUBOIS; K. C. HUGHES; N. B. LASKO; M. K. DAHLGREN; P. PANIC; R. OFFRINGA; B. I. HAKIM; N. J. CARTER; F. C. DAVIS; E. T. WHITE; L. M. LAIFER; R. E. KORUS; T. H. CHAN; N. M. SHEN; S. P. ORR; R. K. PITMAN. *Tufts Univ., Massachusetts Gen. Hosp., UCLA, US Army.*

1:00 BB3 **427.05** Neuropeptide Y and the association with deployment to a combat zone and symptoms of post traumatic stress disorder: A longitudinal prospective military cohort study. E. GEUZE*; A. REIJNEN; E. VERMETTEN. *Utrecht Univ. Med. Ctr., Military Mental Hlth. Care, Leiden Univ. Med. Ctr., Arq Psychotrauma Expert Group.*

2:00 BB4 **427.06** Frontal cortex activity during emotional processing is altered in veterans with hazardous alcohol use and posttraumatic stress disorder. G. FORSTER; D. M. OLSON*; L. BAUGH; J. HANSEN; S. ENGEL; R. GAHER; J. SIMONS; V. MAGNOTTA. *Univ. of South Dakota, Univ. of South Dakota, Univ. of Iowa.*

3:00 BB5 **427.07** Antisaccade as an objective measure of inhibitory control in PTSD: an eye-tracking study. M. J. REINHARD; L. M. WONG; S. BANSAL; N. ALLEN; B. L. SCHWARTZ*. *VA Med. Ctr., George Mason Univ.*

4:00 BB6 **427.08** More than meets the eyes: the impact of eye gaze and emotional expression on antisaccade performance in PTSD. L. M. WONG*; S. BANSAL; N. ALLEN; A. H. ADAMS; B. L. SCHWARTZ; M. J. REINHARD. *VA Med. Ctr., George Mason Univ.*

1:00 BB7 **427.09** Antagonism of melanocortin 4 receptors by intranasal HS014 attenuates single prolonged stress triggered changes in several brain regions. L. I. SEROVA*; M. LAUKOVA; L. G. ALALUF; E. L. SABBAN. *New York Med. Col., New York medical Col.*

2:00 BB8 **427.10** Intranasal oxytocin affects amygdala reactivity towards emotional faces in recently traumatized individuals. J. FRIJLING*; M. VAN ZUIDEN; S. B. J. KOCH; L. NAWIJN; D. J. VELTMAN; M. OLFF. *Academic Med. Ctr., Academic Med. Ctr., VU Univ. Med. Ctr., Arq Psychotrauma Expert Group.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 BB9 **427.11** Persistently elevated ghrelin underlies continued vulnerability to enhanced fear following stress exposure. E. S. HARMATZ*; K. GOOSENS. *MIT.*

POSTER

428. Alcohol: Intake and Preference

Theme C: Disorders of the Nervous System

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

1:00 BB10 **428.01** N/OFQ system selective antagonism decreases binge-like alcohol drinking in mice. G. BRUNORI*; A. CIPPITELLI; A. OZAWA; J. SCHOCH; M. GORMAN; K. GAIOLINI; N. ZAVERI; R. CICCOCIOPPO; L. TOLL. *Torrey Pines Inst. For Mol. Studies, Univ. of Camerino, Astraea Therapeut.*

2:00 BB11 **428.02** Both forced swim stress and kappa opioid receptor activation accelerate escalation of dependence-related ethanol consumption in C57BL/6J mice. R. I. ANDERSON*; C. D. PHELPS; I. T. ROBBINS; M. F. LOPEZ; H. C. BECKER. *Med. Univ. of South Carolina, Col. of Charleston, Med. Univ. of South Carolina.*

3:00 BB12 **428.03** Oral operant ethanol self-administration in the absence of explicit cues, food restriction, water restriction or ethanol fading in C57BL/6J mice. A. M. STAFFORD; S. M. ANDERSON; K. L. SHELTON; D. H. BRUNZELL*. *Virginia Commonwealth University, MCV.*

4:00 BB13 **428.04** A novel, peripherally available Nociceptin/Orphanin FQ receptor agonist SR-8993 reverses hangover anxiety, attenuates alcohol intake, and prevents reinstatement in Wistar rats. A. M. AZIZ*; S. BROTHERS; L. HOLM; M. HEILIG; C. WAHLESTEDT; A. THORSELL. *Linköping Univ., Linköping Univ., Univ. of Miami, NIH.*

1:00 BB14 **428.05** ● A glucagon like peptide-1 analogue reduces alcohol intake and prevents relapse relapse drinking. E. JERLHAG*; E. EGECIOGLU; J. A. ENGEL. *Univ. Goteborgs, Univ. Goteborg, Univ. Goteborg.*

2:00 BB15 **428.06** Ethanol drinking is potentiated in mice expressing a "humanized" A118G mu opioid receptor polymorphism. A. N. HENDERSON-REDMOND; T. S. LOWE; X. B. TIAN; C. M. NEALON; D. J. MORGAN*. *Penn State Col. of Med., Benedict Col., Penn State Col. of Med.*

3:00 BB16 **428.07** Orexin A increases the alcohol dinking behavior of rats that drank alcohol in their childhood. L. G. MENDOZA RUIZ*; P. VAZQUEZ-LEÓN; L. MARTÍNEZ-MOTA; A. MIRANDA-PÁEZ. *House, Inst. Politécnico Nacional, Inst. Nacional de Psiquiatría "Ramón de la Fuente Muñiz".*

4:00 BB17 **428.08** Behavioral and neural effects of chronic ethanol exposure in adolescent mice. N. J. JURY*; H. C. BERGSTROM; A. HOLMES. *Natl. Inst. on Alcohol Abuse and Alcoholism.*

1:00 BB18 **428.09** The role of maternal separation and subordination behavior during defeat stress on alcohol intake and sensitivity to alcohol-related behaviors. B. E. CALDWELL*; E. JACOBS-BRICHFORD; K. F. FARAG. *Ithaca Col., Ithaca Col.*

2:00 BB19 **428.10** Proteomic analysis of cysteine-containing proteins identifies a role for glutathione-S-transferase pi and S-glutathionylation in alcohol dependence and consumption. J. D. UYS*; A. E. PADULA; M. F. LOPEZ; W. C. GRIFFIN, III; T. ANCRUM; L. E. BALL; D. M. TOWNSEND; P. J. MULHOLLAND. *Med. Univ. South Carolina, Med. Univ. of South Carolina, Med. Univ. South Carolina.*

3:00 BB20 **428.11** Accumbally dosed mu- and kappa-opioid receptor agonists and antagonists modify ethanol intake in AA rats. J. UHARI-VÄÄNÄNEN; M. AIRAVAARA; P. BÄCKSTRÖM; V. OINIO; A. RAASMAJA; P. PIEPPONEN; K. KIIANMAA*. *Natl. Inst. for Hlth. and Welfare, Fac. of Pharmacy, Univ. of Helsinki, Inst. of Biotechnology, Univ. of Helsinki.*

4:00 BB21 **428.12** Effects of acute stress exposure on operant intravenous alcohol self-administration (iv-asa) in non-dependent drinkers. B. L. STANGL*; J. WESTMAN; M. ZAMETKIN; L. KWAKO; R. SINHA; V. A. RAMCHANDANI. *NIAAA/NIH, Yale Univ.*

1:00 BB22 **428.13** Extended access to a highly palatable cafeteria-style diet reduces VTA dopamine neuron activity and ethanol consumption. J. B. COOK*; L. M. HENDRICKSON; H. B. THAKKAR; H. MORIKAWA. *The Univ. of Texas At Austin.*

2:00 BB23 **428.14** Alcohol-preferring P rats do not exert higher compulsive drinking despite increased motivation to consume alcohol. R. S. DULMAN; E. AUGIER; H. SUN*; M. HEILIG. *NIH/NIAAA.*

3:00 BB24 **428.15** Relapse to alcohol seeking in rats: The role of alcohol priming and varenicline pretreatment. P. A. RANDALL*; A. A. JARAMILLO; M. MASCIELLO; J. BESHEER. *Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill.*

4:00 BB25 **428.16** Pleiotrophin differentially regulates the rewarding and sedative effects of ethanol. G. HERRADON*; C. PEREZ-GARCÍA; M. FERRER-ALCÓN; M. URIBARRI; M. VICENTE-RODRÍGUEZ. *Pharmacol. Lab, CEU San Pablo Univ., BRAINco Biopharma, S.L.*

1:00 BB26 **428.17** Effects of MPEP on the expression and reinstatement of ethanol conditioned place preference in mice. S. YOON*; J. LEE; J. OH; E. CHOE; J. SEO. *Korea Inst. of Toxicology, Pusan Natl. Univ.*

2:00 BB27 **428.18** Influence of KCNN and other genes related to intracellular calcium signaling on drug addiction, risk for alcohol dependence, and excessive alcohol consumption. A. E. PADULA; M. F. LOPEZ; N. S. MCGUIER; E. J. CHESLER; M. F. MILES; P. J. MULHOLLAND*. *MUSC, MUSC, Jackson Labs., Virginia Commonwealth Univ.*

3:00 BB28 **428.19** Choice as a screen for compulsive alcohol drinking in rats. E. AUGIER*; R. S. DULMAN; M. HEILIG. *Natl. Inst. On Alcohol Abuse and Alcoholism.*

4:00 BB29 **428.20** Social isolation during adolescence increases voluntary ethanol intake via an altered circadian drinking phenotype. J. B. PANKSEPP*; E. D. RODRIGUEZ; A. E. RYABININ. *Oregon Hlth. and Sci. Univ.*

1:00 BB30 **428.21** Conditional knockout of Mecp2 in midbrain dopamine neurons results in increased anxiety-like behavior and promotes voluntary ethanol drinking. M. QIANG*; Z. LIU; J. LIU; X. LU; W. ZHANG. *Univ. Texas.*

2:00 BB31 **428.22** Age of first exposure to alcohol influences success rate of operant ethanol self-administration induction protocols in the absence of sweetener. S. L. ZANDY*; A. VENA; J. P. VALENTA; J. M. DOHERTY; R. A. GONZALES. *The Univ. of Texas at Austin.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 BB32 **428.23** Sex differences in the effects of adolescent social deprivation on alcohol consumption in μ-opioid receptor knockout mice. Y. MORIYA*; Y. KASAHARA; F. S. HALL; G. R. UHL; H. TOMITA; I. SORA. *Tohoku Univ. Grad. Sch. of Med., Tohoku Univ. Grad. Sch. of Med., Mol. Neurobio. Branch, Intramural Res. Program, Natl. Inst. on Drug Abuse, Kobe Univ. Grad. Sch. of Med.*

4:00 BB33 **428.24** Amoxicillin and augmentin reduce ethanol intake and increase GLT1 expression as well as AKT phosphorylation in mesocorticolimbic regions. Y. SARI*; S. GOODWANI; P. RAO; R. L. BELL. *Univ. of Toledo, Col. of Pharm. and Pharmaceut. Sci., Indiana Univ. Sch. of Med.*

1:00 CC1 **428.25** The effects of Urocortin1 knockout on voluntary drinking following chronic intermittent ethanol vapor exposure in male and female mice. J. L. GOMEZ*; D. A. FINN; C. SNELLING; J. LI; A. E. RYABININ. *Oregon Hlth. & Sci. Univ., VA Med. Ctr.*

2:00 CC2 **428.26** ● Independent regulation of early drinking pattern, fluid volume and ethanol dose at a bout level in male alcohol preferring (P) rat: A concentration manipulation study. A. V. AZAROV*; D. J. WOODWARD. *Neurosci Res. Inst. North Carolina.*

3:00 CC3 **428.27** Intrinsic adaptations of mesolimbic dopamine neurons that mediate individual alcohol drinking behaviors. B. JUAREZ*; A. K. FRIEDMAN; S. M. KU; D. CHAUDHURY; H. ZHANG; E. ROSE; M. CRUMILLER; M. HAN. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med., Rockefeller Univ.*

4:00 CC4 **428.28** Brain regional knockdown of P2X4 receptors emphasize their role in mediating ethanol intake. N. HUYNH; L. R. WYATT; L. ASATRYAN; M. M. YARDLEY; M. W. JAKOWEC; D. L. DAVIES*. *USC, Legacy Res. Inst., USC, USC.*

1:00 CC5 **428.29** Alcohol induced DNA brain damage in rats under low doses self administration. M. S. NIN*; P. A. COSTA; J. H. Z. POLI; N. D. M. SPEROTTO; D. J. MOURA; H. M. T. BARROS. *UFCSPA, Ctr. Universitário Metodista do Sul, Univ. Federal de Ciências da Saúde de Porto Alegre, Univ. Federal de Ciências da Saúde de Porto Alegre.*

POSTER

429. Alcohol: Behavioral Effects

Theme C: Disorders of the Nervous System

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

1:00 CC6 **429.01** ▲ Single trial conditioned place preference to ethanol depends on β-endorphin. E. C. BERTRAM*; B. E. DECKER; J. E. GRISEL. *Bucknell Univ.*

2:00 CC7 **429.02** Modeling an endophenotype for susceptibility to alcoholism: Single exposure conditioned place preference to ethanol in mice. J. E. GRISEL*; J. B. BEASLEY; E. C. BERTRAM; B. E. DECKER; L. P. ERCOLANO; M. T. ETUMA; A. H. HAND; M. WHITMIRE. *Bucknell Univ., Furman Univ.*

3:00 CC8 **429.03** ▲ A single exposure to acetaldehyde produces robust conditioned place preference in DBA mice. J. P. MCCAFFERTY*; E. C. BERTRAM; B. E. DECKER; J. E. GRISEL. *Bucknell Univ., Bucknell Univ.*

4:00 CC9 **429.04** ▲ Basal Anxiety predicts subjective rewarding effects of EtOH in mice. K. SYDNOR*; B. E. DECKER; J. E. GRISEL. *Bucknell Univ.*

1:00 CC10 **429.05** Visual context conditioning in rats with escalated ethanol intake assessed via a three-choice conditioned place preference paradigm. P. HUANG*; L. K. QUINN; A. A. CHIBA. *Univ. of California San Diego.*

2:00 CC11 **429.06** Impulsive choice, but not impulsive action, is stable from adolescence to adulthood and predicts ethanol drinking in male and female rats. L. R. HAMMERSLAG*; O. A. ALADESUYI AROGUNDADE; A. G. KAROUNTZOS; J. M. GULLEY. *Univ. of Illinois - Urbana Champaign, Univ. of Illinois - Urbana Champaign, Univ. of Illinois - Urbana Champaign.*

3:00 CC12 **429.07** ● Nociceptin receptor (NOP) agonists attenuate the rewarding effects of alcohol in the conditioned place preference paradigm. N. ZAVERI; A. HAMID; P. MARQUEZ; M. E. MEYER; K. LUTFY*. *Astrea Therapeutics, LLC, Western Univ. of Hlth. Sci.*

4:00 CC13 **429.08** Blockade of kappa-opioid receptors in the basolateral amygdala inhibits negative affective cue-induced excessive alcohol self-administration in rats. A. BERGER*; B. WALKER. *Washington State Univ.*

1:00 CC14 **429.09** Effects of naltrexone on operant self-administration of sweetened ethanol and relapse behavior in adolescent and adult male Long-Evans rats. J. M. DOHERTY*; P. CEVALLOS; C. PARK; R. A. GONZALES. *Univ. of Texas at Austin.*

2:00 CC15 **429.10** ● Compulsive alcohol-seeking behaviour is attenuated by inhibiting μ-opioid receptors. C. GIULIANO*; Y. PEÑA-OLIVER; R. N. CARDINAL; E. T. BULLMORE; C. R. GOODLETT; D. BELIN; B. J. EVERITT. *Univ. of Cambridge, Univ. of Cambridge, Clin. Unit Cambridge and Academic DPU, GlaxoSmithKline R&D, Clin. Unit Cambridge, Addenbrooke's Hosp., Univ. of Indiana, Univ. of Cambridge.*

3:00 CC16 **429.11** Understanding circadian modulation of alcohol sensitivity in *Drosophila melanogaster*. H. KRISHNAN*; A. DENOBREGA; D. DEROSIA; L. C. LYONS. *Florida State Univ.*

4:00 CC17 **429.12** Ethanol sensitivity is decreased by inhibition of phosphodiesterase-4 (PDE4). H. ZHANG*; Y. XU; Y. HUANG; R. T. HANSEN; C. PANG; M. CONTI. *West Virginia Univ. Hlth. Sci. Ctr., Univ. of California in San Francisco.*

1:00 CC18 **429.13** ▲ The effects of alcohol consumption on prospective memory in college students. S. A. RASKIN*; S. DHALIWAL. *Trinity Col., Trinity Col.*

2:00 CC19 **429.14** ▲ Brain morphology, nutritional and behavioral evaluation of rats exposed to chronic alcohol intake. T. ITIDA*, SR; M. R. DA CUNHA; R. N. ISAYAMA; M. C. Z. CASTELLI. *UNIANCHIETA, UNIANCHIETA-Jundai, UNASP-SP.*

3:00 CC20 **429.15** Decreased ethanol-induced sensitization is associated with decreased cannabinoid receptor-1 in a mouse model of postttraumatic stress disorder. J. J. MATCHYNSKI*; L. L. SUSICK; B. L. SCHNEIDER; S. A. PERRINE; A. C. CONTI. *John D. Dingell VA Med. Ctr., Wayne State Univ., Wayne State Univ.*

4:00 CC21 **429.16** ▲ The role of the dopamine/ecdysteroid receptor DopEcR in behavioral disinhibition. G. P. ARANDA*; I. MERCADO; I. OLIVAS; P. EVANS; K. HAN. *UTEP, Univ. of Texas at El Paso, Babraham Inst.*

1:00 CC22 **429.17** Time course of cognitive function following prolonged abstinence from chronic ethanol exposure in a model of alcohol dependence. M. C. STAPLES*; C. D. MANDYAM. *The Scripps Res. Inst.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 CC23 **429.18** Model of voluntary ethanol consumption in zebrafish: Effects on behavior and orexigenic peptide gene expression in the brain. M. STERLING; O. KARATAYEV; I. MORGANSTERN; S. F. LEIBOWITZ*. *Rockefeller Univ.*

3:00 CC24 **429.19** The impact of Pavlovian cues and adolescent alcohol exposure on inter-temporal choice. K. TSUTSUI; A. SCHINDLER; J. J. CLARK*. *Univ. of Washington, Univ. Washington.*

4:00 CC25 **429.20** Ziprasidone and social interaction accelerate the onset of extinction of ethanol-induced conditioned place preference. D. F. FUKUSHIRO*; E. MÁRI-KAWAMOTO; J. M. COSTA; R. WUO-SILVA; T. F. TROMBIN; R. PROCÓPIO-SOUZA; S. R. KAMEDA; R. SANTOS; C. S. BIZERRA; S. B. GRAPIGLIA; S. TUFIK; R. FRUSSA-FILHO; M. L. ANDERSEN. *Federal Univ. of Sao Paulo, Federal Univ. of Sao Paulo.*

1:00 CC26 **429.21** Autoshaping with ethanol in rats: A shift from goal-tracking to sign-tracking. J. N. MADDUX*; C. S. SREY; N. CHAUDHRI. *CSBN/GRNC.*

2:00 CC27 **429.22** Kappa-opioid receptor antagonism in the nucleus accumbens dissociates escalated alcohol consumption and negative affect from physiological withdrawal in alcohol-dependent rats. A. WILLIAMS*; B. WALKER. *Washington State Univ.*

3:00 CC28 **429.23** ▲ Circadian influences on the anxiolytic effects of alcohol in DBA mice. J. NELSON*; C. NELSON; J. E. GRISEL. *Bucknell Univ.*

4:00 CC29 **429.24** Reduced interoceptive sensitivity to alcohol following stress hormone exposure in rats: Identification of potential novel brain regional involvement. A. A. JARAMILLO*; S. FRISBEE; P. A. RANDALL; J. BESHEER. *Univ. of North Carolina at Chapel Hill, Univ. of North Carolina at Chapel Hill.*

1:00 CC30 **429.25** Acute behavioral effects of alcohol in TLR4 knock-out rats. T. A. KOSTEN*; D. A. NIELSEN; G. E. HOMANICS. *Univ. of Houston, Baylor Col. of Med., Univ. of Pittsburgh.*

2:00 CC31 **429.26** Alcoholics' responses to changing reward contingencies in a probabilistic reversal learning fMRI task. S. M. RUIZ*; K. S. SAWYER; E. VALERA; S. LEHAR; M. VALMAS; P. L. REMIJNSE; G. J. HARRIS; M. OSCAR-BERMAN. *Boston Univ. Sch. of Med., VA Boston Healthcare Syst., Athinoula A. Martinos Ctr. for Biomed. Imaging, Harvard Med. Sch., Massachusetts Gen. Hosp., VU Univ. Amsterdam.*

POSTER

430. Cocaine Reinforcement II

Theme C: Disorders of the Nervous System

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

1:00 CC32 **430.01** Transient optogenetic inhibition bidirectionally influences dendritic morphology in the nucleus accumbens core while attenuating cocaine-seeking behavior. M. T. STEFANIK*; Y. M. KUPCHIK; P. W. KALIVAS. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

2:00 CC33 **430.02** In the blink of an eye: 500 msec cocaine cues trigger widespread activation of mesolimbic circuitry. A. R. CHILDRESS*; K. JAGANNATHAN; J. J. SUH; K. YOUNG; R. N. EHRMAN; Z. WANG; Z. MONGE; J. F. MAGLAND; T. R. FRANKLIN; R. R. WETHERILL; D. D. LANGLEBEN; M. GAWRYISAK; R. SZUCS-REED; C. P. O'BRIEN. *Univ. PENN Perelman Sch. Med., Philadelphia VA Med. Ctr.*

3:00 CC34 **430.03** Individual differences in motivation for cocaine assessed using a behavioral economics procedure. A. KAWA*; B. S. BENTZLEY; T. E. ROBINSON. *Univ. of Michigan, MUSC.*

4:00 CC35 **430.04** Your attention, please! The direction of brain-attentional bias correlations for cocaine cues depends on which hand generates the bias scores. Z. A. MONGE; J. J. SUH; R. EHRMAN; K. JAGANNATHAN; Z. WANG; J. F. MAGLAND; T. R. FRANKLIN; R. R. WETHERILL; K. A. YOUNG; M. GAWRYSIAK; D. D. LANGLEBEN; C. P. O'BRIEN*; A. R. CHILDRESS. *Univ. of Pennsylvania Sch. of Med., VA VISN 4 MIRECC, Univ. of Pennsylvania.*

1:00 CC36 **430.05** Relationship between stress-potentiated reinstatement of cocaine seeking and prefrontal cortical endocannabinoid signaling. E. M. DONCHECK*; J. R. MCREYNOLDS; O. VRANJKOVIC; C. J. HILLARD; J. R. MANTSCH. *Marquette Univ., Med. Col. of Wisconsin.*

2:00 DD1 **430.06** Glucocorticoid-endocannabinoid interactions in the prelimbic cortex mediate stress-potentiated reinstatement of cocaine seeking. J. R. MCREYNOLDS*; E. M. DONCHECK; O. VRANJKOVIC; E. N. GRAF; C. J. HILLARD; J. R. MANTSCH. *Marquette Univ., Med. Col. of Wisconsin.*

3:00 DD2 **430.07** Cocaine self-administration in rats induces regressive structural plasticity in the medial prefontal cortex. R. M. ANDERSON*; C. V. COSME; R. T. LALUMIERE; J. J. RADLEY. *Univ. of Iowa, Univ. of Iowa.*

4:00 DD3 **430.08** Role of a CRF receptor-regulated dopaminergic projection from the VTA to the prelimbic cortex in stress-induced relapse. O. VRANJKOVIC*; J. M. BLACKTOP; J. M. RESCH; T. KLOEHN; S. CHOI; D. A. BAKER; J. R. MANTSCH. *Marquette Univ., Marquette Univ.*

1:00 DD4 **430.09** Opposing effects of pre- and postsynaptic adenosine A2A receptor blockade on cocaine seeking. C. E. O'NEILL*; S. C. LEVIS; D. SCHREINER. *Univ. of Colorado.*

2:00 DD5 **430.10** CRF acts in the VTA to reduce NAc dopamine tone and promote cocaine seeking. M. A. ROBBLE*; R. C. TWINING; C. CHAN; A. L. EBBEN; A. J. JACOBSEN; D. S. WHEELER; J. R. MANTSCH; R. A. WHEELER. *Marquette Univ.*

3:00 DD6 **430.11** Development of an animal model of comorbid PTSD and cocaine addiction. M. SCHWENDT*; H. HILLER; E. KRAUSE; L. KNACKSTEDT. *Univ. of Florida, Univ. of Florida.*

4:00 DD7 **430.12** Metabolic changes in rat brain following cocaine self-administration. S. SERRANO*; N. E. CHORNA; C. O. PÉREZ; C. S. MALDONADO-VLAAR. *Univ. of Puerto Rico-Rio Piedras Campus, Univ. of Puerto Rico, Med. Sci. Campus.*

1:00 DD8 **430.13** A history of repeated sodium depletions in rats alters the reinforcing properties of cocaine assessed during self-administration. S. W. HURLEY*; Y. I. KIM; R. T. LALUMIERE; A. K. JOHNSON. *Univ. of Iowa, Univ. of Iowa.*

2:00 DD9 **430.14** Enhancement of cocaine reinforcement by selective loss of TrkB-PLCγ, but not TrkB-ERK, signaling in the nucleus accumbens shell. E. M. ANDERSON*; D. GUZMAN; A. M. WISSMAN; D. W. SELF. *UT Southwestern.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 DD10 **430.15** ▲ Ceftriaxone requires both xCT and GLT-1 up-regulation in the nucleus accumbens to attenuate the reinstatement of cocaine-seeking. J. L. BILODEAU*; K. REISSNER; L. KNACKSTEDT. *UF, UNC.*

4:00 DD11 **430.16** Conditioned and unconditioned Corticosterone elevations associated with cocaine self-administration. Z. YOU*; R. A. WISE. *NIDA-IRP/NIH/DHHS.*

1:00 DD12 **430.17** Methyl supplementation via L-Methionine attenuates addictive-like behaviors in rats and blocks c-Fos activation in the reward circuit following cocaine-primed reinstatement. K. N. WRIGHT*; F. HOLLIS; F. DUCLOT; D. M. DIETZ; T. C. FRANCIS; R. MERCER; A. M. DOSSAT; C. E. STRONG; J. FENG; M. LOBO; E. J. NESTLER; M. KABBAJ. *Florida State Univ., École Polytechnique Fédérale de Lausanne, Univ. at Buffalo, Univ. of Maryland, Icahn Sch. of Med. at Mount Sinai.*

2:00 DD13 **430.18** Optogenetic inhibition of a lateral orbitofrontal to basolateral amygdala subcircuit impairs cue-induced cocaine-seeking behavior in rats. A. A. ARGUELLO; M. A. HODGES; G. D. STUBER; R. A. FUCHS*. *Washington State Univ., Univ. of North Carolina at Chapel Hill.*

3:00 DD14 **430.19** ▲ Exploring whether cocaine-induced priming of innate immune signaling is TLR4 mediated and contributes to sensitized dopamine responsiveness. T. J. FABISIAK*; A. L. NORTHCUTT; T. A. COCHRAN; M. D. WEBER; M. R. HUTCHINSON; S. F. MAIER; K. C. RICE; R. K. BACHTELL; L. R. WATKINS. *Univ. of Colorado, Univ. of Colorado Boulder, Univ. of Adelaide, Natl. Inst. on Drug Abuse.*

4:00 DD15 **430.20** High-dose donepezil attenuates the subjective effects of intravenous cocaine in non-treatment seeking participants. K. W. GRASING*; C. DESOUZA; T. NEWTON. *Kansas City Veterans Affairs Med. Ctr., Kansas City VA Med. Ctr., Baylor Col. of Med.*

1:00 DD16 **430.21** Relapse-suppression by drug omission cues. N. SUTO*; B. T. HOPE; M. MAYFORD; R. A. WISE; G. I. ELMER; F. WEISS. *The Scripps Res. Inst., NIDA/NIH/IRP, Univ. of Maryland Baltimore.*

2:00 DD17 **430.22** ● Novel mixed-action mu-opioid receptor (mor) agonist/delta-opioid receptor (dor) antagonist that prevents stress-induced reinstatement of extinguished cocaine seeking behavior. K. A. HYMEL*; S. O. EANS; M. L. GANNO; E. MIZRACHI; N. ROSS; S. N. SENADHEERA; J. V. ALDRICH; J. P. MCLAUGHLIN. *Torrey Pines Inst. For Mol. Studies, Univ. of Kansas.*

3:00 DD18 **430.23** Clavulanic acid and ceftriaxone enhance extinction of cocaine's reinforcing effects in rats: A new indication for a β-lactamase inhibitor? J. A. SCHROEDER*; E. M. RIDENER; C. S. TALLARIDA; V. SVYSTUN; J. W. PICKEL; S. M. RAWLS. *Connecticut Coll, Connecticut Col., Temple Univ. Sch. of Med.*

4:00 DD19 **430.24** Region and context specific intracellular responses associated with cocaine-induced conditioned place preference expression. A. KLAMBATSEN*; S. K. NYGARD; B. BALOUCHA; S. JENAB; V. QUINONES-JENAB. *Hunter Col., Grad. Sch. and Univ. Center, CUNY, Washington Univ. Sch. of Med.*

1:00 DD20 **430.25** Sleep regulates incubation of cocaine craving in rats. B. CHEN; Y. WANG; X. LIU; Z. LIU; Y. DONG; Y. H. HUANG*. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

2:00 DD21 **430.26** ICV neuropeptide Y-induced decrease of cocaine-induced conditioned place preference in rats was not reversed by the Y-5 receptor antagonist CGP71683. M. SUAREZ*; K. BURKE; J. M. DIPIRRO; A. C. THOMPSON. *Univ. At Buffalo, Daemon Col., Buffalo State Col., Univ. at Buffalo.*

3:00 DD22 **430.27** Realtime manipulation of NAc GABAergic transmissions attenuates the expression of cocaine rewarding memory. M. SHEN*; L. WANG. *Fudan Univ., Fudan Univ.*

POSTER

431. Auditory Processing: Temporal, Frequency, and Spectral Processing- Model Systems and Subcortical

Theme D: Sensory and Motor Systems

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

1:00 DD23 **431.01** WITHDRAWN.

2:00 DD24 **431.02** Role of the dorsal cochlear nucleus in spectral context effects: A computational approach. B. FONTAINE*. *KU Leuven.*

3:00 DD25 **431.03** Chronic *in vivo* two-photon calcium imaging in the dorsal cortex of the mouse inferior colliculus. J. G. G. BORST*; H. GEIS. *Erasmus MC.*

4:00 DD26 **431.04** Sound response properties of the optogenetically identified gabaergic neurons in the inferior colliculus (ic) of mouse. M. ONO*; D. C. BISHOP; D. L. OLIVER. *Univ. of Connecticut Hlth. Ctr.*

1:00 DD27 **431.05** Long-term treatment with progestin does not affect auditory midbrain receptive fields in old CBA mice. J. M. MANSOUR*; B. H. GROSS; E. J. BRECHT; X. ZHU; T. T. WILLIAMSON; R. D. FRISINA; J. P. WALTON. *Dept. of Chem. & Biomed. Engin., Global Ctr. for Hearing & Speech Res., Univ. of South Florida.*

2:00 DD28 **431.06** Neural responses to spectrotemporal patterns in auditory midbrain: from simple to complex. W. TANG; R. XU; B. HONG*. *Tsinghua Univ.*

3:00 DD29 **431.07** Age-related changes in the transformation of responses to amplitude modulated sounds in the inferior colliculus. A. PARTHASARATHY; E. L. BARTLETT*. *Purdue Univ.*

4:00 DD30 **431.08** ▲ Differing effects of noise on subcortical speech representation in younger and older adults. K. ERHARDT; A. PRESACCO; J. SIMON; S. ANDERSON*. *Univ. of Maryland.*

1:00 DD31 **431.09** Tonotopic organization of the turtle brain stem. K. L. WILLIS*; A. JOHNY; C. E. CARR. *Univ. Maryland, Univ. of Maryland.*

2:00 DD32 **431.10** Sensori-motor neural activity in the Superior Colliculus of freely-flying bats. N. B. KOTHARI; M. J. WOHLGEMUTH; C. F. MOSS*. *Johns Hopkins Univ., Univ. of Maryland, Univ. Maryland.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

432. Multisensory: Neural Circuitry and Connections

Theme D: Sensory and Motor Systems

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

1:00 EE1 **432.01** Dissecting fly proboscis circuitry to explore the sensorimotor coordination of a flexible motor program. C. E. MCKELLAR*; J. CANNON; J. H. SIMPSON. *HHMI.*

2:00 EE2 **432.02** Analysis of locomotion-related neural activity in odor source searching behavior of an insect. R. MINEGISHI*; D. KURABAYASHI; R. KANZAKI. *Tokyo Inst. of Technol., The Univ. of Tokyo.*

3:00 EE3 **432.03** Closed-loop sensorimotor integration in the moving spinal cord. S. KNAFO*; O. THOUVENIN; H. PASCAL-MOUSSELARD; C. WYART. *Inst. Du Cerveau Et De La Moelle Épinière, Univ. Pierre et Marie Curie, INSERM (U1127), Inst. du Cerveau et de la Moelle épinière, Orthopedics department, La Pitié-Salpétrière Hospital, Univ. Pierre et Marie Curie.*

4:00 EE4 **432.04** Behavioral and neuronal studies of navigation tasks in zerbafish larva. R. OLIVE*; R. CANDELIER; G. DEBRÉGEAS. *UPMC.*

1:00 EE5 **432.05** Auditory cortex controls innate defense behavior via corticofugal circuits. X. R. XIONG*; F. LIANG; X. JI; B. ZINGG; L. A. IBRAHIM; H. W. TAO; L. I. ZHANG. *Zilkha Neurogenetic Institute,.*

2:00 EE6 **432.06** Cross-modal sensory interactions in the thalamic reticular nucleus: a neural basis for cross-modal modulation of attention and perception. A. KIMURA*; H. IMBE. *Wakayama Med. Univ.*

3:00 EE7 **432.07** Taste cortex influences olfactory processing. J. X. MAIER*; D. B. KATZ. *Brandeis Univ.*

4:00 EE8 **432.08** Unisensory inputs during sensitive periods control the multisensory development via directed interactions within cortico-cortical networks. I. L. HANGANU-OPATZ*; B. RÖDER; K. SIEBEN. *ZMNH-University Med. Ctr. Hamburg-Eppendorf, Univ. Hamburg.*

1:00 EE9 **432.09** Multisensory integration in ferret auditory cortex: Effects of inactivating visual cortex. S. M. TOWN*; K. C. WOOD; G. P. JONES; H. ATILGAN; J. K. BIZLEY. *UCL.*

2:00 EE10 **432.10** Development of a rat model for studying cortical multisensory processing. A. SCHORMANS; M. TYPLT; B. L. ALLMAN*. *Univ. of Western Ontario.*

3:00 EE11 **432.11** Cross modal modulation of orientation selectivity in mouse visual cortex. L. IBRAHIM*; X. JI; L. MESIK; Y. LI; L. I. ZHANG; H. W. TAO. *Zilkha Neurogenetic Inst., USC.*

4:00 EE12 **432.12** Reversible deactivation of motor cortex reveals functional connectivity with posterior parietal cortex in the prosimian galago (Otolemur garnetti). D. F. COOKE*; I. STEPNIEWSKA; D. J. MILLER; J. H. KAAS; L. KRUBITZER. *UC Davis, UC Davis, Vanderbilt Univ.*

1:00 EE13 **432.13** Multisensory interactions between the visual and tactile motion systems. M. GOMEZ-RAMIREZ*; J. H. KILLEBREW; K. HYSAJ; Y. PEI; S. S. HSIAO. *Johns Hopkins Univ., Chang Gung Mem. Hosp. at Linkou.*

2:00 EE14 **432.14** Spiking activity *in vivo* suggests a slightly sub-critical brain state in rats, cats and monkeys. V. PRIESEMANN*; M. WIBRAL; M. VALDERRAMA; R. PRÖPPER; M. LE VAN QUYEN; J. TRIESCH; T. GEISEL; D. NIKOLIC; M. MUNK. *Max Planck Inst. For Dynamics, Bernstein Ctr. for Computat. Neurosci., Goethe Univ., Univ. of Los Andes, Tech. Univ., Hôpital de la Pitié-Salpêtrière, Frankfurt Inst. for Advanced Studies, Max Planck Inst. for Brain Res., Max Planck Inst. for Biol. Cybernetics.*

3:00 EE15 **432.15** The special role of the claustrum in monkey's interareal cortical communication. A. R. RIBEIRO GOMES*; C. LAMY; P. MISERY; K. KNOBLAUCH; H. KENNEDY. *Stem-Cell and Brain Res. Inst.*

4:00 EE16 **432.16** Cortical thickness gradients in functional hierarchies. K. WAGSTYL*; L. RONAN; S. BEUL; P. FLETCHER. *BMU, Dept. of Computat. Neurosci.*

1:00 EE17 **432.17** ▲ Neuropeptide distribution in the human parabrachial nucleus. B. GEHRING; S. DE LACALLE*. *Ohio Univ., Heritage Col. of Osteo. Med.*

2:00 EE18 **432.18** A decentralized architecture for neural information integration. W. H. ZHANG; M. J. RASCH*; S. WU. *Beijing Normal Univ., Chinese Acad. of Sci., Beijing Normal Univ.*

POSTER

433. Photoreceptors

Theme D: Sensory and Motor Systems

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

1:00 EE19 **433.01** Optimal stimuli for evoking melanopsin-based photoresponses in intrinsically photosensitive retinal ganglion cells. O. WALCH*; L. ZHANG; D. FORGER; K. WONG. *Univ. of Michigan, Univ. of Michigan.*

2:00 EE20 **433.02** Maturation of the mouse rod photoreceptor. D. T. WHITAKER*; K. KOORAGAYALA; C. CAMPLA; K. MOLLURA; J. COOKE; A. SWAROOP. *NIH, Texas A&M Univ., Oxford Univ.*

3:00 EE21 **433.03** ● Discovery of small molecule melanopsin antagonists using a high-throughput screening assay. H. ZHONG*; L. YUAN; J. SPROUSE; R. ARTYMYSHYN; S. HONG; M. MARZABADI; K. JONES. *U-Pharm Labs. LLC, Cyanaptic LLC, Lundbeck Res. USA Inc.*

4:00 EE22 **433.04** IGF1 and PMA act through specific phoshatases to induce rod photoreceptor differentiation. P. T. BROWN*; C. PINZON-GUZMAN; T. XING; C. J. BARNSTABLE. *Penn State Univ. Col. of Med.*

1:00 EE23 **433.05** Behaviorally measured visual contrast sensitivity of Royal College of Surgeons Rats and its temporal loss. S. SOMA*; N. SUEMATSU; S. SHIMEGI. *Osaka Univ.*

2:00 EE24 **433.06** Melanopsin - a possible trigger of lateralization in pigeons? R. KLOSE*; F. STROCKENS; O. GUNTURKUN. *Ruhr-University Bochum.*

3:00 EE25 **433.07** The role of melanopsin phosphorylation in mouse behavior and physiology. P. SOMASUNDARAM; P. ROBINSON*. *UMBC.*

4:00 EE26 **433.08** Cholinergic and melanopsin dendritic stratification in the inner plexiform layer of the macaque retina. K. Q. CHANG*; C. E. STRANG; P. D. GAMLIN. *Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham, Univ. of Alabama At Birmingham.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 EE27 **433.09** Determining the developmental lineage of novel photoreceptors that control circadian rhythms. H. WANG*; S. CHEN. *Natl. Taiwan Univ.*

2:00 EE28 **433.10** Electrophysiological investigation of the compound eye of the brown marmorated stink bug. N. S. ARNOLD; V. D. C. SHIELDS; T. HEINBOCKEL; A. B. LALL*. *Towson Univ., Howard Univ. Col. of Med., Howard Univ.*

3:00 FF1 **433.11** Acetylcholine-mediated stimulation of retinal ganglion cell photoreceptors. P. SODHI*; A. T. E. HARTWICK. *Ohio State Univ.*

4:00 FF2 **433.12** Colour-opponent twilight coding regulates the mammalian circadian clock. T. BROWN*; L. WALMSLEY; L. HANNA; J. MOULAND; F. MARTIAL; A. WEBB; D. BECHTOLD; R. LUCAS. *Univ. of Manchester.*

1:00 FF3 **433.13** Detection of vitamin A in the iris of the turtle supports a functional melanopsin. J. R. DEARWORTH*, Jr.; M. S. D'SOUZA; J. SHERMA; M. J. CHEJLAVA. *Lafayette Col.*

2:00 FF4 **433.14** Peptide Lv augments the L-type voltage-gated calcium channels through vascular endothelial growth factor receptor 2 (VEGFR2) signaling. L. SHI; S. KO; M. L. KO; G. Y. KO*. *Texas A&M Univ., Baylor Col. of Med.*

3:00 FF5 **433.15** Evidence for structural and functional reorganization of visual retinotopic and high level regions in a human model of genetically determined peripheral visual loss. M. CASTELO-BRANCO*; S. FERREIRA; A. PEREIRA; B. QUENDERA; C. MATEUS; M. D. R. ALMEIDA; E. SILVA. *IBILI - Fac. of Medicine, Univ. of Coimbra, Ctr. for Neurosci. and Cell Biology, Univ. of Coimbra, Ophthalmology Unit, Ctr. Hospitalar e Universitário de Coimbra.*

4:00 FF6 **433.16** HSP27 alters retinal cell existence in a light-induced retinal degenerative model. Y. LEE*; C. HUANG; Y. CHENG; L. TIEN; C. KE; C. CHIEN. *Fu-Jen Catholic Univ., Cathay Gen. Hosp., Sijhih Cathay Gen. Hosp.*

1:00 FF7 **433.17** Cone photoreceptor regeneration following cone-specific ablation. W. T. ALLISON*; A. P. OEL; N. NOEL; G. F. HAGERMAN; M. G. DUVAL. *Univ. of Alberta.*

2:00 FF8 **433.18** An shRNA-based *in vivo* retina screen identifies molecules that regulate presynaptic development of rod photoreceptor. S. KIM*; C. PARK; T. COGLIATI; M. BROOKS; R. FARISS; W. LI; A. SWAROOP. *NEI, NIH, NEI, NIH, NEI/NIH.*

3:00 FF9 **433.19** The electroretinogram of Mongolian gerbil (meriones unguiculatus). S. YANG; G. XIONG; X. LUO; K. SO; J. DONG; Y. XU*. *Jinan Univ., Jinan Univ., Jinan Univ. Med. Sch.*

4:00 FF10 **433.20** [Unable to Attend] Adenosine A1 receptor changes throughout light induced retinal degeneration. J. J. LOPEZ-COSTA*; M. SOLIÑO; E. M. LÓPEZ; M. VACOTTO; E. GIRARDI. *IBCN, Univ. De Buenos Aires-Conicet.*

1:00 FF11 **433.21** ● *In vivo* evaluation of a novel small molecule antagonist of melanopsin. L. S. MURE*; K. JONES; M. HATORI; J. SPROUSE; S. PANDA. *The Salk Inst., Lundbeck Res. USA Inc, Cyanaptic LLC.*

2:00 FF12 **433.22** ● Cone-by-cone threshold variability in the human retina. K. S. BRUCE*; W. M. HARMENING; A. ROORDA; L. SINCICH. *Univ. of Alabama At Birmingham, Univ. of Bonn, Univ. of California Berkeley.*

POSTER

434. Striate Cortex Input Circuits

Theme D: Sensory and Motor Systems

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

1:00 FF13 **434.01** ● The Yin and Yang of perceptual grouping: Effects of glutamatergic and GABAergic compounds. J. C. TALPOS*, III; J. RIORDAN; J. OLLEY; J. WADDELL; T. STECKLER. *Janssen Pharmaceutica NV, Open Analytics.*

2:00 FF14 **434.02** ▲ Mixed excitatory/inhibitory interactions between V1 simple cells could reflect a Bayesian edge probability calculation. G. C. MEL*; C. A. RAMACHANDRA; B. W. MEL. *USC, Eyenuk LLC.*

3:00 FF15 **434.03** Quantification and anatomical characterization of VGluT2-ir terminals in layer 4C of macaque primary visual cortex. V. GARCIA-MARIN*; T. H. AHMED; M. J. HAWKEN. *Ctr. For Neural Science. New York Universty.*

4:00 FF16 **434.04** Thalamocortical activation of Layer 4 neurons in primary visual cortex. M. KLOC*; A. MAFFEI. *Stony Brook Univ., Grad. Program in Neurosci., SUNY Eye Inst.*

1:00 FF17 **434.05** Interconnected layer 4 neurons in the mouse visual cortex receive common inputs from the lateral geniculate nucleus. N. A. MORGENSTERN*; L. PETREANU. *Champalimaud Ctr. For the Unknown.*

2:00 FF18 **434.06** The development of parvalbumin positive neurons in ferret visual cortex. A. L. JACOB*; C. T. UNAL; T. C. WALKER; D. J. CASCIATO; M. M. BOLTON; D. FITZPATRICK. *Max Planck Florida Inst.*

3:00 FF19 **434.07** Cortical parcellation, neuropil reactivity and distribution of calcium-binding protein immunoreactive neurons in the visual cortex of the marmoset (Callithrix jacchus). M. A. FREIRE*; P. F. CAVALCANTI; T. G. MENDES; M. B. SANTANA; J. G. FRANCA. *ELS-IINN, ELS-IINN, UFRJ.*

4:00 FF20 **434.08** A critical role of NMDA receptors in parvalbumin interneurons for visual information processing in mouse V1. M. FIORINI*; A. VAICELIUNAITE; S. ERISKEN; O. JURJUT; S. KATZNER; L. BUSSE. *Univ. of Tuebingen, Vilnius Univ.*

1:00 FF21 **434.09** ▲ Circuit mapping of basal forebrain inputs to inhibitory interneurons in the neocortex. M. FOER*; M. E. RECH; C. R. CADWELL; J. REIMER; A. S. TOLIAS. *Rice Univ., Baylor Col. of Med., Rice Univ.*

2:00 FF22 **434.10** Morphological analysis of the layer 6 input to layer 4 in primary visual cortex of the mouse. A. L. BODOR*; M. TAKENO; N. M. D. COSTA. *Allen Inst. For Brain Sci., Allen Inst. for Brain Sci.*

3:00 FF23 **434.11** Functional contribution of direct geniculocortical input to deep layers of visual cortex. A. K. KINNISCHTZKE*; Y. HONG; R. M. BRUNO. *Columbia Univ.*

4:00 FF24 **434.12** Morphological comparison of inputs to primate visual areas MT, V1 and V2. R. T. MARION; K. LI; J. A. MAVITY-HUDSON; V. A. CASAGRANDE*. *Vanderbilt Med. Sch.*

1:00 FF25 **434.13** Mechanisms of pulvinar control of the primary visual cortex (V1). K. LI*; G. PURUSHOTHAMAN; J. A. MAVITY-HUDSON; Y. JIANG; D. YAMPOLSKY; V. A. CASAGRANDE. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 FF26 **434.14** Visual processing in V1 by fast and slow corticogeniculate neurons: axonal conduction time matters. Y. I. BERESHPOLOVA*; C. R. STOELZEL; J. ZHUANG; J. ALONSO; H. A. SWADLOW. *Univ. of Connecticut, SUNY Col. of Optometry.*

3:00 FF27 **434.15** Functional imaging of thalamic axons in mouse primary visual cortex. S. KONDO*; K. OHKI. *Kyushu Univ., CREST, JST.*

4:00 FF28 **434.16** Signatures of Magnocellular and Parvocellular inputs to cortical LFP. 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 FF29 **434.17** The lateral geniculate nucleus provides layers 1 through 4 of primary visual cortex with orientation- and direction-selective inputs. W. SUN*; N. JI. *HHMI Janelia Farm Res. Campus.*

POSTER

435. Decision Making and the Cortex

Theme D: Sensory and Motor Systems

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

1:00 FF30 **435.01** Attention has opposite effects on spike count correlations within and between visual areas. D. A. RUFF*; D. F. MONTEZ; M. R. COHEN. *Univ. of Pittsburgh.*

2:00 FF31 **435.02** Correlations within V4 populations do not affect sensory encoding or choice decoding in a rapid shape detection task. K. F. WEINER*; G. M. GHOSE. *Univ. of Minnesota, Univ. of Minnesota.*

3:00 FF32 **435.03** Spatial attention may regulate noise correlations through increases in local inhibition. J. F. MITCHELL*; J. H. REYNOLDS. *Salk Institute, SNL-R.*

4:00 GG1 **435.04** Surround suppression in area MT reduces the dependency of interneuronal correlation on tuning similarity. L. D. LIU*; C. C. PACK. *McGill Univ.*

1:00 GG2 **435.05** Correlated responses of v4, but not v1 neurons predict behavioral outcomes. M. HU*; A. PARAJULI; A. R. ANDREI; V. DRAGOI. *Univ. Texas-Houston, Med. Sch.*

2:00 GG3 **435.06** The relationship between choice-related variability of MT neuron responses and ongoing network activity. Y. CUI*; L. D. LIU; J. M. MCFARLAND; C. C. PACK; D. A. BUTTS. *Univ. of Maryland, McGill Univ.*

3:00 GG4 **435.07** On the relationship between stimulus-evoked and choice-related responses and correlations during perceptual decision-making in a probabilistic inference framework. R. M. HAEFNER*. *Brandeis Univ., Univ. of Rochester.*

4:00 GG5 **435.08** Using sequential dependencies in neural activity and behavior to dissect choice related activity in V2. H. NIENBORG*; J. H. MACKE. *Ctr. For Integrative Neurosci., Max Planck Inst. for Biol. Cybernetics; Bernstein Ctr. for Computat. Neurosci.*

1:00 GG6 **435.09** Evoked and mnemonic representation of spatial information in prefrontal cortex during memory-guided location comparisons. P. REN*; M. RAMON; P. M. SPINELLI; A. COMPTE; T. PASTERNAK. *Univ. of Rochester, Univ. of Rochester, Inst. d'Investigacions Biomèdiques August Pi i Sunyer.*

2:00 GG7 **435.10** Changes-of-mind during decision-making: Neural correlates on single trials. R. KIANI*; C. CUEVA; J. REPPAS; W. T. NEWSOME. *New York Univ., Columbia Univ., Stanford Univ., Howard Hughes Med. Inst.*

3:00 GG8 **435.11** Neural responses in parietal area MIP support a link between decision confidence and movement variability. L. WOLOSZYN*; K. K. ANANDALINGAM; R. VAN DEN BERG; D. M. WOLPERT; M. N. SHADLEN. *Columbia Univ., Univ. of Cambridge, Kavli Inst. for Brain Sci., Howard Hughes Med. Inst.*

4:00 GG9 **435.12** Temporal certainty about stimulus presentation differentially affects response dynamics in dorsal premotor and primary motor cortex. D. PEIXOTO*; R. KIANI; C. CHANDRASEKARAN; K. V. SHENOY; W. T. NEWSOME. *Stanford Univ. Sch. of Med., Champalimaud Neurosci. Programme, Ctr. for Neural Science, NYU, Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ. /HHMI.*

1:00 GG10 **435.13** Trial-by-trial covariation between PMd responses and action choice during a reaction time discrimination task. C. CHANDRASEKARAN*; D. PEIXOTO; W. T. NEWSOME; K. V. SHENOY. *Stanford Univ., Stanford Univ., Stanford Univ., Champalimaud Neurosci. Inst., Stanford Univ. / HHMI, Stanford Univ., Stanford Univ.*

2:00 GG11 **435.14** Functional segregation of evidence accumulation and decision commitment in lateral intraparietal cortex. R. L. GORIS*; R. KIANI. *New York Univ.*

3:00 GG12 **435.15** Prior probability of stimuli influences the computation of choice certainty. C. E. HATCH*; B. PURCELL; R. KIANI. *NYU.*

4:00 GG13 **435.16** The influence of the strength and variability of sensory evidence on confidence in a perceptual decision. A. ZYLBERBERG; C. R. FETSCH*; M. SIGMAN; M. N. SHADLEN. *Columbia Univ., Univ. de Buenos Aires, Howard Hughes Med. Inst., Kavli Inst. for Brain Sci.*

1:00 GG14 **435.17** Adaptive decision-making: a role for choice certainty in updating environmental belief. B. PURCELL*; R. KIANI. *New York Univ.*

2:00 GG15 **435.18** Dorsal-ventral visual stream structural integrity and functional connectivity predict 6-year longitudinal growth in math skills. T. M. EVANS*; J. KOCHALKA; T. J. NGOON; C. J. BATTISTA; V. MENON. *Stanford Univ.*

POSTER

436. Sensorimotor Transformation: Behavior

Theme D: Sensory and Motor Systems

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

1:00 GG16 **436.01** ▲ Determinants of the escape response of crickets to looming stimuli. A. M. CHILDS*; K. L. REIMAN; C. R. EBEL; C. L. CLELAND. *James Madison Univ.*

2:00 GG17 **436.02** ▲ Determinants of the escape response of crickets to localized heat stimuli. B. MITCHELL*; S. C. HEITSCH; G. W. REBHUN; E. G. THOMSON; C. L. CLELAND. *James Madison Univ.*

3:00 GG18 **436.03** Behavioral characterization of ultraviolet light avoidance in the larval zebrafish. D. A. GUGGIANA-NILO*; F. ENGERT. *Harvard Univ.*

Mon. PM

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 GG19 **436.04** Biased visuomotor behavior suggests a simple computation underlying amphibian target tracking. W. R. MOWREY*; A. LEONARDO. *Janelia Farm Res. Campus.*

1:00 GG20 **436.05** Visual backward masking in rats: A behavioral task for studying the neural mechanisms of visual awareness. M. WATANABE*; N. TOTAH; K. KAISER; S. LÖWE; N. K. LOGOTHETIS. *Max Planck Inst. For Biol. Cybernetics, Univ. of Tuebingen.*

2:00 GG21 **436.06** ● ▲ Insights from modeling the process of learning a pair of similar visuomotor tasks in rats. R. ELLISON*; A. POLLARD; M. PRIESTAS; S. YAKOVENKO. *West Virginia Univ., West Virginia Univ.*

3:00 GG22 **436.07** How does variability in tactile feedback affect adapatation of grip forces to surface friction? P. RAGHAVAN*; S. BILALOGLU; D. GELLER; V. ALURU; J. RIZZO; Y. LU. *New York Univ. Langone Med. Ctr., The NYU Steinhardt Sch. of Culture, Educ. and Human Develop.*

4:00 GG23 **436.08** Comparison of static and dynamic point-to-point tasks for visuomotor adaptation. A. HANTJIS*; S. PARKER; J. LAWRENCE-DEWAR. *Thunder Bay Regional Res. Inst.*

1:00 GG24 **436.09** Learning joint actions: Cooperation strategies. J. D. KLEIN*; S. HELMS-TILLERY; C. BUNEO. *ASU.*

2:00 GG25 **436.10** Reciprocal coupling of visuo-motor linkages synchronize interpersonal postural coordination. S. OKAZAKI*; T. KOIKE; M. HIROTANI; J. BOSCH-BAYARD; H. K. TAKAHASHI; M. HASHIGUCHI; N. SADATO. *Natl. Inst. for Physiological Sci., Carleton Univ., Cuban Neurosci. Ctr., The Grad. Univ. for Advanced Sci. (SOKENDAI).*

3:00 GG26 **436.11** Optical flow with roll oscillations affects postural control during human locomotion. J. PICKHINKE*; T. RAND; D. EIKEMA; M. MUKHERJEE. *Univ. of Nebraska At Omaha.*

4:00 GG27 **436.12** Motor control deficiencies contribute to impaired reactive driving performance in older adults. C. KIM*; H. MOON; L. JECK; T. ONUSHKO; N. LODHA; E. CHRISTOU. *Univ. of Florida.*

POSTER

437. Reaching Action

Theme D: Sensory and Motor Systems

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

1:00 GG28 **437.01** Binocular advantage in prehension movements performed in visually stimulating environments. E. NIECHWIEJ*; D. GONZALEZ; R. GNANASEELAN; T. JENNETT. *Univ. of Waterloo, Univ. of Waterloo.*

2:00 GG29 **437.02** Repetition: Fundament of adaptation by reinforcement learning? K. VAN DER KOOIJ*; K. E. OVERVLIET; J. B. J. SMEETS. *VU Univ. Amsterdam, The Netherlands, VU Univ.*

3:00 GG30 **437.03** Posterior parietal cortex predicts upcoming movement during manual interception of moving targets. Y. LI*; Y. WANG; H. CUI. *Georgia Regents Univ., Georgia Regents Univ.*

4:00 GG31 **437.04** Delayed pointing in a pure case of ventral pathway damage. S. CORNELSEN; M. HIMMELBACH*. *Ctr. of Neurology, Hertie-Institute For Clin. Brain Res.*

1:00 GG32 **437.05** Near-hand effect influenced by repetitive transcranial magnetic stimulation applied to AIP. K. BEBEN; L. E. BROWN*. *Trent Univ.*

2:00 GG33 **437.06** Virtual dissection and comparative connectivity of the superior longitudinal fasciculus in chimpanzees and humans. E. E. HECHT*; D. A. GUTMAN; B. A. BRADLEY; T. M. PREUSS; D. STOUT. *Georgia State Univ., Emory Univ., Univ. of Exeter, Emory Univ., Emory Univ.*

3:00 GG34 **437.07** The event related potential and microstate analysis of memory guided and visually guided movements. G. BINSTED*; D. CHENG. *Univ. of British Columbia.*

4:00 GG35 **437.08** Does moving your limb alter audio-visual temporal order judgments? A. BHATTACHARJEE*; T. YAMASHITA; J. DE GROSBOIS; L. TREMBLAY. *Univ. of Toronto.*

1:00 GG36 **437.09** A dissociation between action and perception in patient DF when haptic feedback is constant. R. WHITWELL*. *The Ctr. For Brain and Mind.*

2:00 HH1 **437.10** Independence of movement planning and movement initiation in a choice reaction time task. A. M. HAITH*; J. W. KRAKAUER. *Johns Hopkins Sch. of Med.*

3:00 HH2 **437.11** ● Local adaptation of feedback responses and voluntary reaching movements. T. CLUFF*; S. H. SCOTT. *Queen's Univ.*

4:00 HH3 **437.12** Visual responses on upper limb muscles during pro- and anti-reach movements implicate the superior colliculus. C. GU*; D. K. WOOD; P. L. GRIBBLE; T. J. DOHERTY; B. D. CORNEIL. *Western Univ., Northwestern Univ.*

1:00 HH4 **437.13** Reaching for eggs and butter - Integrating spatial reference frames in natural scenes. M. KLINGHAMMER*; L. WALLNER; G. BLOHM; K. FIEHLER. *Justus-Liebig Univ. Giessen, Queen's Univ.*

2:00 HH5 **437.14** Dynamic and scalable object-based spatial selectivity in monkey parietal reach region and dorsal premotor cortex. B. TAGHIZADEH SARSHOURI*; A. GAIL. *German Primate Ctr., Georg-August-Universität Göttingen, Bernstein Ctr. for Computat. Neurosci.*

3:00 HH6 **437.15** Complex temporal responses of macaque motor cortex during a novel handle rotation task evoking a range of discreet point-to-point and extended multi-cycle movements. B. M. LONDON*; M. CHURCHLAND. *Columbia Univ.*

4:00 HH7 **437.16** Neural events when the same movement is initiated in different ways: comparing single-neuron responses during self-generated, cue-driven, and quasi-automatic movements in motor and premotor cortex. A. H. LARA*; M. M. CHURCHLAND. *Columbia Univ.*

1:00 HH8 **437.17** Minimal effects of aging on the context-dependent modulation of reflexive correction movements during target reaching. K. KADOTA*; D. KIMURA; H. KINOSHITA. *Osaka Univ.*

2:00 HH9 **437.18** Kinematic characteristics and laterality quotient predict interlimb transfer of sensorimotor adaptation. H. LEFUMAT*; J. VERCHER; C. MIALL; J. COLE; L. BRINGOUX; C. BOURDIN; F. SARLEGNA. *CNRS & Aix-Marseille Univ., Behavioural & Brain Sci. Centre, Sch. of Psychology, Univ. of Birmingham, Clin. Neurophysiology, Poole Hospital, and Sch. of Psychology, Univ. of Bournemouth.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 HH10 **437.19** The human motor system adapts reaching movements for both task-relevant and task-irrelevant forces. J. G. CASHABACK*; H. R. MCGREGOR; P. L. GRIBBLE. *Western Univ., Western Univ., Western Univ.*

4:00 HH11 **437.20** The cingulate motor area of monkeys is involved in specification and initiation of reaching movement. T. YAMAGATA*; L. TREMBLAY; E. HOSHI. *Tokyo Metropolitan Inst. of Med. Sci., Ctr. de Neurosci. Cognitive, CREST, JST.*

1:00 HH12 **437.21** ● Prediction of directional kinematics from 3D reaching movements of the contralateral and ipsilateral limb using electrocorticography. D. T. BUNDY*; N. SZRAMA; M. PAHWA; C. HACKER; M. SHARMA; E. C. LEUTHARDT. *Washington Univ., Washington Univ.*

2:00 HH13 **437.22** Interaction of sensory and motor noise during reaching: A simulation study. G. A. APKER*; C. A. BUNEO. *U.S. Army Res. Lab., Arizona State Univ.*

3:00 HH14 **437.23** Location then object representations sequentially predominate in the widely distributed activation of the primary motor cortex during reach to grasp. A. G. ROUSE*; A. T. ROUSSIN; M. H. SCHIEBER. *Univ. of Rochester Med. Ctr.*

4:00 HH15 **437.24** Short time-scale stability of directional tuning in motor cortex measured using maximum likelihood estimation. S. B. SUWAY*; A. J. C. MCMORLAND; G. W. FRASER; J. SOHN; S. M. CHASE; Z. LIU; M. VELLISTE; R. E. KASS; A. B. SCHWARTZ. *Univ. of Pittsburgh, Systems Neurosci. Inst., Univ. of Pittsburgh, Ctr. for the Neural Basis of Cognition, Carnegie Mellon Univ., Systems Neurosci. Inst.*

POSTER

438. Eye Movements: Cortex

Theme D: Sensory and Motor Systems

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

1:00 HH16 **438.01** A novel multi-barrelled glass coated silver-plated tungsten wire tetrode for combined extracellular recording and microiontophoresis in the primate brain. S. VIJAYRAGHAVAN*; A. J. MAJOR; S. EVERLING. *Western Univ.*

2:00 HH17 **438.02** Cholinergic modulation of prefrontal cortical activity subserving mnemonic representation of rule-guided behaviour. A. J. MAJOR*; S. VIJAYRAGHAVAN; S. EVERLING. *Western Univ.*

3:00 HH18 **438.03** Ketamine-induced changes in the signal and noise of prefrontal neurons during a working memory task in monkeys. L. MA*; K. SKOBLENICK; J. K. SEAMANS; S. EVERLING. *Univ. of British Columbia, Univ. of Western Ontario, Univ. of Western Ontario, Univ. of British Columbia, Univ. of Western Ontario, Univ. of Western Ontario.*

4:00 HH19 **438.04** Rebound in latencies distribution reveals cortical involvement in saccadic inhibition. P. POUGET*; P. DAYE; S. RIVAUD-PÉCHOUX; N. WATTIEZ; B. GAYMARD. *CRICM,INSERM UMRS 975, CNRS UMR 7225, UPMC, ICM,INSERM UMRS 975, CNRS UMR 7225, UPMC.*

1:00 HH20 **438.05** An intrinsic inhibitory rostrally-directed intralaminar pathway in the rodent superior colliculus. P. BAYGUINOV*; M. B. JACKSON; M. A. BASSO. *Univ. of Wisconsin, Univ. of California.*

2:00 HH21 **438.06** Modulation of the neural correlates of saccade performance using task switching and trial type probability in an event-related fMRI paradigm. J. E. PIERCE*; J. B. MCCARDEL; J. S. COPPIANO; A. L. RODRIGUE; D. J. SCHAEFFER; S. ARKIN; J. E. MCDOWELL. *Univ. Of Georgia.*

3:00 HH22 **438.07** Impairment, but not abolishment, of express saccade generation following large and reversible cryogenic inactivation of frontal eye fields (FEF). S. DASH*; S. G. LOMBER; B. D. CORNEIL. *Robarts Res. Institute, Western Univ., Western Univ., Robarts Res. Inst.*

4:00 HH23 **438.08** Neural correlates of spatially and temporally predictive saccades. B. J. CHANG*; D. C. BRIEN; B. C. COE; D. P. MUNOZ. *Queen's Univ.*

1:00 HH24 **438.09** The phase of ongoing EEG oscillations predicts the amplitude of peri-saccadic mislocalization. D. MCLELLAND*; L. LAVERGNE; R. VANRULLEN. *Ctr. De Recherche Cerveau & Cognition, Univ. Paul Sabatier, Univ. Paris Descartes.*

2:00 HH25 **438.10** Laminar profiles of top-down vs bottom-up neuronal interactions during free viewing. A. TRONGNETRPUNYA*; A. BARCZAK; S. HAEGENS; C. E. SCHROEDER; M. DING. *Univ. of Florida, New York Univ., Columbia Univ. Col. of Physicians and Surgeons, Nathan S. Kline Inst. for Psychiatric Res., Univ. of Florida.*

3:00 HH26 **438.11** Contrast-dependent responses to microsaccades in area V1. J. CUI*; S. L. MACKNIK; S. MARTINEZ-CONDE. *Barrow Neurolog. Inst.*

4:00 HH27 **438.12** Structure of local field potential coherence within and between FEF and V4 during eye movement planning. S. B. KHANNA*; A. SNYDER; M. SMITH. *Univ. of Pittsburgh, Univ. of Pittsburgh, Ctr. for Neural Basis of Cognition, Univ. of Pittsburgh.*

1:00 HH28 **438.13** Cognitive control of attentional priority by the frontal eye field. K. MIRPOUR*; J. W. BISLEY. *UCLA, Jules Stein Eye Institute, David Geffen Sch. of Med.,, Dept. of Psychology and the Brain Res. Inst., UCLA.*

2:00 HH29 **438.14** Contributions of frontal eye field spiking activity and synchrony to control of eye movements. A. VAHABIE; M. A. DEHAQANI; C. SUN; B. NOUDOOST; A. SOLTANI*. *Inst. for Res. in Fundamental Sci., Dartmouth Col., Montana State Univ., Dartmouth Col.*

3:00 HH30 **438.15** V1 response variability driven by fixational eye movements. J. M. MCFARLAND*; A. G. BONDY; B. G. CUMMING; D. A. BUTTS. *Univ. of Maryland, Natl. Eye Institute, Natl. Inst. of Hlth.*

4:00 HH31 **438.16** Circuits underlying covert attention and saccade preparation within the primate frontal eye field. N. A. STEINMETZ*; T. MOORE. *Univ. Col. London, Stanford Univ.*

1:00 HH32 **438.17** Visually induced gamma-band activity is entrained to rhythmic modulation of behavioral relevance. J. R. DOWDALL*; C. A. BOSMAN; P. FRIES. *Ernst Struengmann Inst. (ESI) For Neurosci., Donders Inst. for Brain, Cognition and Behaviour, Radboud Univ.*

2:00 II1 **438.18** HD-tDCS modulates decision response times. T. MURDISON*; O. Y. LEE; D. STANDAGE; G. BLOHM. *Queen's Univ., Canadian Action and Perception Network (CAPnet), Assn. for Canadian Neuroinformatics and Computat. Neurosci. (CNCN).*

3:00 II2 **438.19** Natural vision effects on V1 activity and contrast sensitivity. J. NIEMEYER*; M. PARADISO. *Brown Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 II3 **438.20** Repetitive transcranial magnetic stimulation to the dorsal premotor cortex and near-hand effects. S. CARLIN*; L. E. BROWN. *Trent Univ.*

POSTER

439. Mechanisms of Neuropathic Pain: Glia

Theme D: Sensory and Motor Systems

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

1:00 II4 **439.01** ▲ Changes of DRG neuron population in neuropathic pain. T. LEE; C. KUNG; W. SUN*. *Natl. Central Univ.*

2:00 II5 **439.02** 5-HT-dependent descending facilitation maintains long-lasting hyperactivity of dorsal horn astrocytes but not microglia and contributes to the maintenance and spread of neuropathic pain. J. YANG; W. GUO; Y. CHU*; S. ZOU; K. REN; R. DUBNER; F. WEI. *Univ. of Maryland Dent. Sch.*

3:00 II6 **439.03** Astrocytes-specific transcriptional activation of MCP-3 associated with histone modifications in the spinal cord by peripheral neuropathy. D. IKEGAMI*; K. OHI; M. NARITA; N. KUZUMAKI; T. USHIJIMA; M. NARITA. *Hoshi Univ., Div. of Epigenomics, Natl. Cancer Ctr. Res. Institute., Life Sci. Tokyo Advanced research center (L-StaR).*

4:00 II7 **439.04** Therapeutic morphine prolongs neuropathic pain in rats: A role for TLR4 and inflammasome signaling in the lumbar spinal cord. P. M. GRACE*; K. A. STRAND; E. L. GALER; Y. ZHANG; D. BERKELHAMMER; L. I. GREENE; K. C. RICE; S. F. MAIER; L. R. WATKINS. *Univ. of Colorado, Boulder, Natl. Inst. on Drug Abuse and Natl. Inst. on Alcohol Abuse and Alcoholism.*

1:00 II8 **439.05** Spinal astrocytic STAT3 is a crucial factor for reactive astrocytes in neuropathic pain. Y. KOHRO*; M. TSUDA; E. SAKAGUCHI; H. TOZAKI-SAITOH; H. OKANO; K. INOUE. *Kyushu Univ., Keio Univ. Sch. Med.*

2:00 II9 **439.06** Activation of astrocytes by sciatic nerve ligation-induced neuropathic pain in delta opioid receptor knockout and wild type mice. C. GAVERIAUX-RUFF*; H. MAURIN; D. REISS; L. ROECKEL; B. L. KIEFFER. *IGBMC GIE CERBM, ESBS, École Supérieure de Biotechnologie de Strasbourg, IGBMC Inst. de Génétique et de Biologie Moléculaire et Cellulaire.*

3:00 II10 **439.07** Changes of microglia activity by basic fibroblast growth factor on neuropathic pain. H. FUJIMAKI; G. INOUE*; K. UCHIDA; W. SAITO; H. SEKIGUCHI; N. TAKAHIRA; M. TAKASO; G. INOUE. *Kitasato Univ., Kitasato Univ.*

4:00 II11 **439.08** Microglial cell activation in the spinal dorsal horn: The pain-relieving effect of spinal cord stimulation in an experimental model of mono-neuropathy. M. VAN BEEK; B. JOOSTEN*; E. A. JOOSTEN; J. HEUSCHEN. *Maastricht Univ. Med. Ctr.*

1:00 II12 **439.09** IRF5 is a crucial determinant for the formation of P2X4R+ reactive microglia driving neuropathic pain. T. MASUDA*; S. IWAMOTO; R. YOSHINAGA; H. TOZAKI-SAITOH; A. NISHIYAMA; T. W. MAK; T. TAMURA; M. TSUDA; K. INOUE. *Grad Sch. Pharm Sci. Kyushu univ, Yokohama City Univ. Grad. Sch. of Med., Univ. Hlth. Network.*

2:00 II13 **439.10** Connexin-43 induces chemokine release from spinal cord astrocytes to maintain late-phase neuropathic pain in mice. G. CHEN*; C. PARK; R. XIE; T. BERTA; M. NEDERGAARD; R. JI. *Duke Univ. Med. Ctr., Ctr. for Translational Neuromedicine, Univ. of Rochester Med. Ctr.*

3:00 II14 **439.11** Paclitaxel induces acute pain in rodents via activating microglial TLR4 and releasing IL-1 beta in the dorsal horn. H. WENG*; X. YAN; D. MAIXNER; R. YADAV. *Univ. of Georgia Col. of Pharm., The Univ. of Georgia Col. of Pharm.*

POSTER

440. Somatosensory Cortex

Theme D: Sensory and Motor Systems

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

1:00 II15 **440.01** ● Beyond columnar organization: Horizontal pathways dominate cortical circuitry. R. T. NARAYANAN*; R. EGGER; H. MOHAN; A. JOHNSON; B. SAKMANN; C. DE KOCK; M. OBERLAENDER. *Max Planck Inst. for Biol. Cybernetics, Integrative Neurophysiology, Ctr. for Neurogenomics and Cognitive Research. (CNCR), Digital Neuroanatomy, Max Planck Florida Inst.*

2:00 II16 **440.02** Cell type-specific subcortical targets of layer 5 projecting neurons in the rat vibrissal cortex. G. ROJAS-PILONI*; M. GUEST; A. JOHNSON; R. EGGER; R. NARAYANAN; D. UDVARY; B. SAKMANN; M. OBERLAENDER. *Univ. Natl. Autonoma Mexico, Digital Neuroanatomy, Max Planck Florida Inst. for Neurosci, Computat. Neuroanatomy, Max Planck Inst. for Biol. Cybernetics.*

3:00 II17 **440.03** Buildingbrains-3d: A tool to integrate neuron morphologies into 3d brain reconstructions. A. JOHNSON*; O. ZHOVNIR; R. EGGER; B. SAKMANN; M. OBERLAENDER. *Max Planck Florida Inst., Max Planck Inst. for Biol. Cybernetics, Univ. of Tuebingen, Dept. of Neurosurg., Bernstein Ctr. for Comput. Neurosci.*

4:00 II18 **440.04** Reverse engineering sensory perception and decision making: Bridging physiology, anatomy and behavior. M. OBERLAENDER*; R. EGGER; R. T. NARAYANAN; D. UDVARY; J. M. GUEST; A. JOHNSON; G. ROJAS-PILONI. *Max Planck Inst. For Biol. Cybernetics, Max Planck Florida Inst. for Neurosci.*

1:00 II19 **440.05** Axonal IN types in rat's barrel cortex. D. UDVARY*; R. EGGER; J. GUEST; M. HELMSTAEDTER; B. SAKMANN; D. FELDMEYER; M. OBERLAENDER. *Max Planck Inst. For Biol. Cybernetics, Max Planck Inst. for Neurosci., Max Planck Inst. of Neurobio., Inst. für Neurowissenschaften und Medizin (INM-2).*

2:00 II20 **440.06** Structural basis of sensory-motor control. J. M. GUEST*; R. EGGER; G. ROJAS-PILONI; P. STRICK; B. SAKMANN; M. OBERLAENDER. *Max Planck Florida Inst. For Neurosci., Max Plank Inst. for Biol. Cybernetics, Univ. of Pittsburgh.*

3:00 II21 **440.07** Distinct role for the cortical layers revealed by analysis of *in vivo* spike-count noise correlations in the rat barrel cortex. Y. AMITAI*; V. REYES-PUERTA; J. SUN; H. LUHMANN; M. SHAMIR. *Ben-Gurion Univ., Johannes Gutenberg Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 II22 **440.08** ● ▲ Morphological characterization of supragranular neurons in the primary somatosensory cortex. S. SOSNOWIK; C. H. TSE; A. TSIMOUNIS; J. C. BRUMBERG*. *Queens College, CUNY, Queensborough Community College, CUNY, Queens Col., Grad. Center, CUNY.*

1:00 II23 **440.09** Selective connectivity of corticothalamic neurons in layer 6 of mouse motor cortex with thalamocortical and cortical projection neurons. N. YAMAWAKI*; G. M. G. SHEPHERD. *Northwestern Univ.*

2:00 II24 **440.10** Optogenetic dissection of the contribution of direct thalamic inputs to layer 5 in somatosensory cortex. Y. HONG*; C. O. LACEFIELD; R. M. BRUNO. *Columbia Univ.*

3:00 II25 **440.11** Behavioral correlates of apical dendritic activity in Layer 5 pyramidal neurons of the mouse barrel cortex. C. LACEFIELD*; E. PNEVMATIKAKIS; L. PANINSKI; R. BRUNO. *Columbia Univ., Columbia Univ.*

4:00 II26 **440.12** Wide field functional imaging reveals network boundaries and symmetric transformation operated between areas of mouse cortex. M. P. VANNI*; M. MOHSENVAND; T. H. MURPHY. *Univ. of British Columbia.*

1:00 II27 **440.13** Distributed representation of tactile information streams in prefrontal cortex. M. I. SILVA*; R. C. MOIOLI; C. S. DEOLINDO; E. MORYA; A. C. B. KUNICKI; M. A. L. NICOLELIS. *Inst. Internacional De Neurociências De Natal, Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

2:00 II28 **440.14** Functional topography and tuning properties of neurons in the S1 whisker representation of the short-tailed opossum, Monodelphis domestica. D. L. RAMAMURTHY*; A. G. GORDON; L. A. KRUBITZER. *UC Davis, Univ. of California, Davis, Univ. of California, Davis.*

3:00 II29 **440.15** Neuronal activity patterns of posterior parietal cortical activity during active tactile discrimination task. A. C. KUNICKI*; R. C. MOIOLI; C. S. DEOLINDO; E. MORYA; M. A. L. NICOLELIS. *Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, IINN-ELS, Duke Univ., Duke Univ., Duke Univ., Duke Univ.*

4:00 II30 **440.16** Mapping the connectivity of a cortical chandelier cell module. J. TUCCIARONE*; J. LU; J. HUANG. *Cold Spring Harbor Lab., Stony Brook Univ.*

1:00 JJ1 **440.17** 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, Max- Delbrück-centrum für molekular medizin, Unité de neurosciences, information et complexité (UNIC), Ctr. national de la recherche scientifique (CNRS).*

POSTER

441. Somatosensory: Stimulus Feature Neural Coding

Theme D: Sensory and Motor Systems

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

1:00 JJ2 **441.01** Motor cortex ensemble activities during goal-directed behavior. E. ZAGHA*; X. GE; D. A. MCCORMICK. *Yale Sch. of Med.*

2:00 JJ3 **441.02** Coding of sensory sequences in the barrel cortex: Time integration versus sensitivity to instantaneous parameters. M. MARAVALL*; A. L. ALBARRACÍN; M. MOLANO-MAZÓN; A. PITAS; M. R. BALE. *Inst. de Neurociencias, UMH-CSIC.*

3:00 JJ4 **441.03** Whisker mediated tactile detection in the rodent somatosensory system. P. KURUPPATH*; R. AZOUZ. *Ben-Gurion Univ.*

4:00 JJ5 **441.04** Population coding in the trigeminal system. E. GUGIG*; R. AZOUZ. *Ben Gurion Univ. of the Negev.*

1:00 JJ6 **441.05** Context-dependent information decoding of sensory-evoked responses. H. J. ZHENG*; C. J. SHEPHARD; B. J. HE; G. B. STANLEY. *Georgia Inst. of Technol. & Emory Univ., NIH.*

2:00 JJ7 **441.06** Parvalbumin-expressing GABAergic neurons gate sensory perception in mouse barrel cortex. S. B. SACHIDHANANDAM*; C. C. H. PETERSEN. *Brain Res. Institute, Univ. of Zurich, Ecole Polytechnique Federale de Lausanne.*

3:00 JJ8 **441.07** ● The neural correlates of motion within the rodent somatosensory cortex: The design and control of a multi-whisker stimulator. A. A. BAJNATH*; V. LIU; I. LAX; J. C. BRUMBERG. *Queens Col. & The Grad. Center, CUNY, Queens College, City Univ. of New York, The Grad. Center, CUNY.*

4:00 JJ9 **441.08** Voltage-sensitive dye optical imaging of cortical whisker frequency selectivity. V. TSYTSAREV*; E. PUMBO; Q. TANG; C. CHEN; Y. CHEN; R. S. ERZURUMLU. *Univ. of Maryland, Children's Natl. Med. Ctr., Univ. of Maryland.*

1:00 JJ10 **441.09** Probabilistic encoding of stimulus features in layer 2/3 of the rodent barrel cortex. C. A. GOLLNICK*; D. C. MILLARD; R. V. BELLAMKONDA; G. B. STANLEY. *Georgia Inst. of Technol.*

2:00 JJ11 **441.10** Cortical representation of stimulus changes in barrel cortex by temporal sharpening. J. VOIGTS*; C. A. DEISTER; C. I. MOORE. *MIT, Brown Univ.*

3:00 JJ12 **441.11** Maximally informative neurons show high levels of internal correlation in an otherwise decorrelated cortex. C. A. DEISTER*; S. BECHEK; R. LICHTIN; T. BROWN; J. VOIGTS; C. MOORE. *Brown Univ., MIT.*

4:00 JJ13 **441.12** Neuronal signature of the tactile "funneling illusion": Population encoding in S1 cortex. N. CATZ; Y. ZENNOU-AZOGUI; J. CORBO; C. A. XERRI*. *Aix-Marseille University/CNRS.*

1:00 JJ14 **441.13** Neuronal correlates of tactile surface roughness in primary somatosensory cortex, S1, of the macaque monkey. E. MEFTAH*; S. BOURGEON; A. DÉPEAULT; C. E. CHAPMAN. *Univ. Montreal.*

2:00 JJ15 **441.14** Estimation of neuronal assembly encoding directional information by decoding method. M. SOMEYA*; H. OGAWA. *Hokkaido Univ., Hokkaido Univ.*

3:00 JJ16 **441.15** Enhancement and modelling of spike timing reliability *in vivo* using noise evoked by juxtacellular stimulation. G. DORON*; J. DOOSE; M. BRECHT; B. LINDNER. *Humboldt Univ. of Berlin.*

4:00 JJ17 **441.16** Spatial variation of simulated slowly adapting type 1 afferent responses to embossed dot patterns predicts perceived roughness. J. GOODMAN*, JR; J. LIEBER; H. SAAL; S. BENSMAIA. *Univ. of Chicago.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 JJ18 **441.17** Preliminary evidence for variance based information processing mechanisms in the trigeminal pathway of the albino rat. P. XANTHOPOULOS*; J. E. COLEMAN; C. TORETS; F. PANETSOS. *Univ. of Central Florida, Univ. of Florida, Complutense Univ. of Madrid.*

2:00 JJ19 **441.18** Microsecond-scale spike timing precision in rodent trigeminal primary afferents. M. R. BALE*; A. ERSKINE; D. CAMPAGNER; R. S. PETERSEN. *Inst. de Neurociencias UMH-CSIC, The Univ. of Manchester.*

3:00 JJ20 **441.19** When gentle touch becomes pleasant. M. DAVIDOVIC*; G. STARCK; H. OLAUSSON. *Inst. of Neurosci. and Physiol., Dept. of Radiation Physics, Inst. of Neurosci. and Physiol.*

4:00 JJ21 **441.20** Circuit analysis of choice-related activity in mouse somatosensory cortex. H. YANG; S. E. KWON; D. H. O'CONNOR*. *The Johns Hopkins Univ. Sch. of Med.*

1:00 JJ22 **441.21** Dorsal horn neurons involved in the generation of spontaneous cord dorsum potentials exhibit phasic responses to tactile stimuli. R. TECUANHUEY*; D. VAZQUEZ; J. A. TAPIA; A. TREJO; N. HUIDOBRO; T. V. BALTINA; E. MANJARREZ. *Benemerita Univ. Autonoma De Puebla, Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla, Benemerita Univ. Autonoma de Puebla, Kazan Federal Univ.*

2:00 JJ23 **441.22** Effects of transcranial direct current stimulation, tDCS, of primary somatosensory cortex, S1, on detection of vibrotactile stimuli in humans. S. LABBÉ*; E. MEFTAH; C. E. CHAPMAN. *Univ. De Montréal.*

3:00 JJ24 **441.23** Stimulus preference profiles of whisker sensitive neurons in trigeminal nuclei. S. CHAKRABARTI*; A. MAIA-CHAGAS; C. SCHWARZ. *Werner Reichardt Ctr. For Integrative Neurosci., Hertie Inst. for Clin. Brain Res., Werner Reichardt Ctr. For Integrative Neurosci.*

4:00 JJ25 **441.24** Muscle spindles encode force information. K. P. BLUM*; B. LAMOTTE D'INCAMPS; D. ZYTNICKI; L. H. TING. *Georgia Inst. of Technol., Emory Univ., Univ. Paris Descartes.*

POSTER

442. Systems Physiology and Circuits

Theme D: Sensory and Motor Systems

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

1:00 JJ26 **442.01** A cerebello-basal ganglia pathway involved in song learning. L. PIDOUX; C. LEVENES; A. LEBLOIS*. *CNRS / Univ. Paris Descartes, CNRS / Univ. Paris Descartes.*

2:00 JJ27 **442.02** ▲ Connections of dorsocentral striatum with substantia nigra: Circuitry for directed attention. S. A. SZYMANSKI; R. L. REEP*. *Univ. Florida.*

3:00 JJ28 **442.03** Laminar and regional distribution of cortical neurons innervating striatonigral neurons in rats as determined using transneuronal retrograde transport of rabies virus. Y. DENG*; J. L. LANCIEGO; L. KERKERIAN-LE GOFF; P. COULON; P. SALIN; P. KACHIDIAN; A. J. REINER. *Univ. of Tennessee HSC, Neurosciences Division, Ctr. for Applied Med. Res. (CIMA and CIBERNED), Univ. of Navarra Med. Col., Aix-Marseille Université, CNRS, IBDM UMR7288, 13009, Aix Marseille Université, CNRS, INT UMR 7289.*

4:00 JJ29 **442.04** Specificity of laterobasal amygdaloid projections to striatum and the extended amgydala. R. A. REICHARD*; K. P. PARSLEY; D. S. ZAHM. *St. Louis Univ. Med. Sch.*

1:00 JJ30 **442.05** A novel afferent of the ventral tegmental area and substantia nigra compacta from the deep frontal lobe. D. ROBY*; L. YETNIKOFF; K. P. PARSLEY; D. S. ZAHM. *St. Louis Univ.*

2:00 JJ31 **442.06** The Indirect Pathway is not what you think: D1 medium spiny neurons of the nucleus accumbens project to the ventral pallidum. Y. M. KUPCHIK*; R. M. BROWN; D. SCHWARTZ; P. W. KALIVAS. *Med. Univ. of South Carolina.*

3:00 JJ32 **442.07** Disinhibition of prefrontal cortex differentially gates hippocampal and amygdala inputs to the nucleus accumbens. M. TSE*; S. B. FLORESCO. *Univ. British Columbia, Univ. British Columbia.*

4:00 JJ33 **442.08** Lateral habenula stimulation overrides evoked phasic bursting of dopamine neurons. C. M. STOPPER*; M. T. L. TSE; S. B. FLORESCO. *Univ. British Columbia, Univ. British Columbia.*

1:00 JJ34 **442.09** Cortical involvement in tic generation: A behavioral and neurophysiological study in rats. M. ISRAELASHVILI; I. BAR-GAD*. *Bar-Ilan Univ.*

2:00 JJ35 **442.10** Decorrelated striatal resting state maintained by feedback inhibition. A. KLAUS; D. PLENZ*. *Natl. Inst. of Mental Health, NIH.*

3:00 JJ36 **442.11** Optogenetic assessment of synaptic mechanisms influencing ventral striatal information integration. J. M. BROOKS*; P. O'DONNELL. *Pfizer.*

4:00 KK1 **442.12** Functional dissection of cortical inputs to striatal interneurons with modified rabies virus. J. R. KLUG*; N. M. TAYLOR; F. OSAKADA; E. M. CALLAWAY; X. JIN. *Salk Inst. for Biol. Studies, Salk Inst. for Biol. Studies.*

1:00 KK2 **442.13** Functional specificity and heterogeneity of basal ganglia pathways during action selection. H. LI; X. JIN*. *The Salk Inst. for Biol. Studies.*

2:00 KK3 **442.14** Subthalamic regulation of striatal dopamine and behavior. C. D. HOWARD*; J. R. KLUG; X. JIN. *Salk Inst. For Biol. Studies.*

3:00 KK4 **442.15** Differential modulation of striatal neurons by brainstem cholinergic afferents. J. MENA-SEGOVIA*; I. HUERTA-OCAMPO; P. BOLAM; T. GERDJIKOV; D. DAUTAN. *MRC Anat Neuropharm Unit, Univ. Oxford, Univ. of Leicester.*

4:00 KK5 **442.16** Fast sensory responses in the pedunculopontine nucleus help pause actions. F. CHEN; R. SCHMIDT; N. MALLET; J. D. BERKE*. *Univ. Michigan, Ann Arbor, Univ. of Freiburg, Inst. of Neurodegenerative Dis. UMR CNRS 5293.*

1:00 KK6 **442.17** The globus pallidus cancels actions by suppressing striatal output. R. SCHMIDT*; N. MALLET; D. K. LEVENTHAL; F. CHEN; J. D. BERKE. *BrainLinks-BrainTools, Univ. of Freiburg, Univ. of Bordeaux, Univ. of Michigan, Univ. of Michigan.*

2:00 KK7 **442.18** Dynamic delta-beta phase-amplitude coupling predicts behavioral performance in a rat stop-signal task. D. K. LEVENTHAL*; J. R. PETTIBONE; J. D. BERKE. *Univ. of Michigan, Ann Arbor, Univ. of Michigan, Ann Arbor.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 KK8 **442.19** Dynamics of cortical and striatal activity during vibrissa-CS trace eyeblink conditioning. C. A. THORN*; E. MCDONNELL; C. MOORE. *Brown Univ., Brown Univ.*

4:00 KK9 **442.20** Context-dependence of action selection in the basal ganglia. M. LINTZ*; G. FELSEN. *Univ. of Colorado.*

1:00 KK10 **442.21** Discharge characteristics of striatal neurons during visually guided locomotion in the cat. J. A. LEONARD*; I. ARTO; T. DREW. *Univ. de Montréal.*

2:00 KK11 **442.22** Pallidal and cerebellar control of thalamocortical activity. S. CHIKEN*; Y. KAWAGUCHI; M. KIMURA; A. NAMBU. *Natl. Inst. For Physiological Sci., Grad. Univ. Adv. Studies, Brain Sci. Inst., Tamagawa Univ.*

3:00 KK12 **442.23** The role of the corticostriatal circuit in transitioning between motor behaviors. M. J. TAMTÈ*; P. HALJE; P. PETERSSON. *Lunds Universitet.*

4:00 KK13 **442.24** Behavioral and physiological impacts of aversive information in monkeys. Y. UEDA*; K. TOKITA; K. NAKAMURA. *Kansai Med. Univ., RIKEN BSI.*

1:00 KK14 **442.25** Functional connectivity of the subthalamic nucleus and substantia nigra pars reticulata changes during flexible action control. J. J. JANTZ*; M. WATANABE; R. LEVY; D. P. MUNOZ. *Queen's Univ., Queen's Univ.*

2:00 KK15 **442.26** ● Overlapping cognitive and motor functions in the globus pallidus internal segment. J. W. MINK*; I. STATNIKOVA. *Univ. Rochester Med. Ctr., Univ. Rochester.*

3:00 KK16 **442.27** Comparative diffusion tractography of cortico-striatal motor pathways reveals differences between humans and macaques. M. S. HOWELL YOUNG*; J. D. SCHALL; B. ZANDBELT; S. F. W. NEGGERS. *Vanderbilt Univ., Vanderbilt Univ., Univ. Med. Ctr. Utrecht.*

POSTER

443. Cortical Planning of Actions

Theme D: Sensory and Motor Systems

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

1:00 KK17 **443.01** The cost of planning what movement trajectories will look like in extrinsic space: moving beyond the point-to-point reach. A. L. WONG*; J. GOLDSMITH; J. W. KRAKAUER. *Johns Hopkins Univ. Sch. Med., Columbia Mailman Sch. of Publ. Hlth., Johns Hopkins Univ. Sch. of Med.*

2:00 KK18 **443.02** Differential involuntary recruitment of arm muscles determine direction dependent haptic perception of uniform external perturbations. A. RANASINGHE*; P. DASGUPTA; K. ALTHOEFER; T. NANAYAKKARA. *King's Col. London, King's Col. London.*

3:00 KK19 **443.03** Readiness potentials of self-generated gait initiation. S. WAKI*; H. NAKANO; S. MORIOKA. *Grad. Sch. of Hlth. Sci. Kio Univ., Kobe Rehabil. Hosp., Yamato Univ.*

4:00 KK20 **443.04** Strenuous exercise affects eye movements in the visual periphery. C. FUEGER*; K. R. GEORGE; K. T. EBERSOLE; J. E. EARL-BOEHM; D. M. BAZETT-JONES; W. E. HUDDLESTON. *Univ. of Wisconsin - Milwaukee, Univ. of Wisconsin - Milwaukee, Carroll Univ.*

1:00 KK21 **443.05** The influence of transcranial alternating current on the initiation of movement. J. R. MCINTOSH*; M. GÖRNER; C. MEHRING. *Freiburg Univ., Imperial Col. London, Imperial Col. London.*

2:00 KK22 **443.06** The effect of coordinate frame on motor learning in Alzheimer's disease. D. PRESS*; Y. R. MIYAMOTO; J. M. BRETON; J. B. BRAYANOV; M. A. SMITH. *Beth Israel Deaconess Med. Ctr., Harvard Univ.*

3:00 KK23 **443.07** Brain activation associated with decoupling muscle synergies of the human pelvic floor. S. ASAVASOPON*; M. RANA; D. J. KIRAGES; M. S. YANI; E. B. LOHMAN; L. S. BERK; J. J. KUTCH. *Loma Linda Univ., USC.*

4:00 KK24 **443.08** Cortical-facilitated muscle synergies of the human pelvic floor. M. RANA; S. ASAVASOPON; D. J. KIRAGES; M. S. YANI; B. E. FISHER; E. B. LOHMAN; L. BERK; J. J. KUTCH*. *USC, Loma Linda Univ.*

1:00 KK25 **443.09** Evidence that an autonomic 'central command' originates in cortical motor areas. R. P. DUM*; D. J. LEVINTHAL; P. L. STRICK. *Univ. Pittsburgh, Univ. Pittsburgh, Veterans Affairs Med. Ctr.*

2:00 KK26 **443.10** Saccade planning activity dissociated from visual attention activity in human parietal cortex. W. E. HUDDLESTON*; J. R. LYTLE; M. S. ALEKSANDROWICZ. *Univ. of Wisconsin - Milwaukee.*

3:00 KK27 **443.11** Changing resting state connectivity measured by functional magnetic resonance imaging with transcranial alternating current stimulation. M. T. BÄCHINGER*; M. MOISA; R. POLANIA; D. MANTINI; C. RUFF; N. WENDEROTH. *ETH Zürich, Neural Control of Movement Lab., Univ. of Zürich, Oxford Univ.*

4:00 KK28 **443.12** Cortico-muscular network dependent on handedness and perspective during action recognition: Towards a neurophysiological model of action simulation. R. KELLY*; L. A. WHEATON. *Georgia Inst. of Technol.*

1:00 KK29 **443.13** Transmitting signals from premotor and primary somatosensory cortices construct muscle-like coordinate representation in the primary motor cortex. Y. FUJIWARA*; W. YASUDA; J. LEE; T. ISHIKAWA; S. KAKEI; J. IZAWA. *ATR, Tokyo Metropolitan Inst. of Med. Sci., NTT Communication Sci. Labs.*

2:00 KK30 **443.14** Voluntary stopping of ongoing behavior relates to the inferior parietal activation. K. OMATA*; S. ITO; Y. OUCHI. *Hamamatsu Univ. Sch. of Med., Hamamatsu PET Imaging Center, Hamamatsu Med. Photonics Fndn., Dept. of Biofunctional Imaging, Med. Photonics Res. Center, Hamamatsu Univ. Sch. of Med.*

3:00 KK31 **443.15** ● Functionally-specific coupling between delta-phase and alpha-amplitude with respect to a choice of a hand. T. KAJIHARA*; M. ANWAR; M. KAWASAKI; Y. MIZUNO; K. NAKAZAWA; K. KITAJO. *RIKEN BSI-Toyota Collaboration Center, RIKEN Brain, Univ. of Tokyo, RIKEN Brain Sci. Inst., Univ. of Tsukuba, Tokyo Univ. of Agr. and Technol., Japan Society for the Promotion of Sci.*

4:00 KK32 **443.16** Enhanced neurobehavioral outcomes of action observation prosthesis training. W. CUSACK*; S. THACH; R. PATTERSON; D. ACKER; R. KISTENBERG; L. WHEATON. *Univ. of Pittsburgh, Georgia Inst. of Technol.*

1:00 LL1 **443.17** Cortical mechanisms for conversion of allocentric target representations into egocentric reach plans in the human. Y. CHEN*; S. MONACO; J. D. CRAWFORD. *Ctr. For Vision Research, Canadian Action and Perception Network, York Univers, York Univ., Canadian Action and Perception Network, York Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 LL2 **443.18** Relationship between M1-M1 coupling during paretic hand movement and corpus callosum integrity after stroke. J. C. STEWART*; P. DEWANJEE; E. B. QUINLAN; L. DODAKIAN; A. MCKENZIE; J. SEE; S. C. CRAMER. *Univ. of South Carolina, Univ. of California, Irvine, Chapman Univ.*

3:00 LL3 **443.19** Separating descending corticofugal projections in healthy adults using Diffusion Tensor Tractography. M. OWEN*; J. P. A. DEWALD. *Northwestern Univ. Feinberg Sch. of Med., Northwestern Univ., Northwestern Univ.*

POSTER

444. Brain–Machine Interface: Implanted Electrodes I

Theme D: Sensory and Motor Systems

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

1:00 LL4 **444.01** Telemetry-controlled simultaneous stimulation-and-recording device to train cortical circuits in rat somatosensory cortex. J. T. RAMSHUR; A. L. DE JONGH CURRY; R. S. WATERS*. *Univ. of Memphis, Univ. Tennessee Hlth. Sci. Ctr.*

2:00 LL5 **444.02** Wheelchair navigation with wirelessly recorded cortical ensembles. P. TSENG*; S. RAJANGAM; A. YIN; G. LEHEW; D. SCHWARZ; M. LEBEDEV; M. A. L. NICOLELIS. *Duke Univ., Duke Univ., Duke Univ., Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Ecole Polytechnique Federale De Lausanne.*

3:00 LL6 **444.03** Correlation analysis of local field potentials in pigeon's nidopallium caudolaterale to decoding its steering motion. Z. SHANG*; X. LIU; Z. LI; Z. WANG; H. WAN. *Zhengzhou Univ., Zhengzhou Univ.*

4:00 LL7 **444.04** Perturbation of state-estimation in area 5d. L. S. URBAN*; Y. SHI; M. HAUSCHILD; R. ANDERSEN. *Caltech.*

1:00 LL8 **444.05** Spectral fingerprinting: Reproducible unsupervised assessment of spiking activity in multisite electrode recordings. E. F. CIVILLICO*; C. G. WELLE; K. RUDA; K. WACHRATHIT; T. HEARN; V. KRAUTHAMER. *FDA.*

2:00 LL9 **444.06** Mitigating electrical stimulation artifacts for bidirectional neural interfaces. J. E. O'DOHERTY*; P. N. SABES. *Univ. of California, San Francisco.*

3:00 LL10 **444.07** Neural control strategies in a closed-loop brain-machine interface with a 4 degree of freedom redundant actuator. H. G. MOORMAN*; S. GOWDA; J. M. CARMENA. *UC Berkeley, UC Berkeley.*

4:00 LL11 **444.08** Computing arm movements with a monkey brainet. P. IFFT*; A. RAMAKRISHNAN; M. PAIS-VIEIRA; Y. BYUN; K. Z. ZHUANG; M. A. LEBEDEV; M. A. L. NICOLELIS. *Duke Univ., Duke Univ., Duke Univ., Duke Univ., Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal.*

1:00 LL12 **444.09** Limits on transmission of information in primary motor cortex during multidimensional reaches. R. G. RASMUSSEN*; S. M. CHASE; A. B. SCHWARTZ. *Univ. of Pittsburgh, Carnegie Mellon Univ., Univ. of Pittsburgh.*

2:00 LL13 **444.10** Joint inference for spike sorting and decoding for brain-machine interface. V. A. SUBRAMANIAN*; D. CARLSON; M. A. L. NICOLELIS. *Duke Univ., Duke Univ., Duke Univ., Duke Univ., Duke Univ., Duke Univ., Edmond and Lily Safra Intl. Inst. of Neurosci.*

3:00 LL14 **444.11** Goal-directed modulation of neural activity in rodent primary visual cortex via a brain-machine interface. R. NEELY*; A. KORALEK; J. CARMENA. *UC Berkeley, UC Berkeley.*

4:00 LL15 **444.12** Cortical control of a lower-limb exoskeleton in rhesus monkeys. K. Z. ZHUANG*; T. VOUGA; J. OLIVIER; M. BOURI; H. BLEULER; M. A. LEBEDEV; M. A. L. NICOLELIS. *Duke Univ., Duke Univ., Ecole polytechnique fédérale de Lausanne, Ecole polytechnique fédérale de Lausanne, Duke Univ., Duke Univ., Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal.*

1:00 LL16 **444.13** Is spike sorting necessary to achieve maximal decoding accuracy? R. SO*; Z. XU; C. LIBEDINSKY; C. GUAN. *Inst. For Infocomm Res., Singapore Insitute for Clin. Sci.*

2:00 LL17 **444.14** Robust neuroprosthetic control from the immediate perilesional cortex. K. GANGULY*; C. WONG; S. WONG; R. A. SWANSON; T. GULATI. *SFVAMC & UCSF.*

3:00 LL18 **444.15** Posture dependency of the twitch responses induced by intraspinal microstimulation to the primate spinal cord. H. YAGUCHI; D. KOWALSKI; T. TAKEI; K. SEKI*. *Natl.inst.Neurosci., Sch. of Biomed. Engin.*

4:00 LL19 **444.16** Studies of electrocortical recordings from a newly conceived chronically-implanted wireless device in monkeys. G. E. BIELLA*; A. G. ZIPPO. *Natl. Res. Council - Inst. of Bioimaging and Mol. Physiol.*

1:00 LL20 **444.17** Wavelet transform preprocessing methodology to improve single unit isolation in primary motor cortex cells from a macaca fascicularis. A. ORTIZ-ROSARIO*; H. ADELI; J. A. BUFORD. *The Ohio State Univ., The Ohio State Univ., The Ohio State Univ., The Ohio State Univ., The Ohio State Univ.*

2:00 LL21 **444.18** Optogenetic investigation of functional neuronal changes proximal to chronically implanted microelectrode arrays. G. L. KNAACK*; T. HEARN; K. RUDA; S. HUANG; K. T. WACHRATHIT; V. KRAUTHAMER; C. G. WELLE; E. F. CIVILLICO. *George Mason Univ., U.S. Food and Drug Admin., U.S. Food and Drug Admin.*

3:00 LL22 **444.19** Evaluating the long-term effectiveness of neural interface technology with a spontaneous behavior classification platform. S. HUANG; E. F. CIVILLICO; G. L. KNAACK; T. HEARN; V. KRAUTHAMER; C. G. WELLE*. *FDA, George Mason Univ.*

POSTER

445. Brain–Machine Interface: Analytical Methods for Monitoring Tissue Responses

Theme D: Sensory and Motor Systems

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

1:00 LL23 **445.01** The spatial distribution and intensity of FBR biomarkers in rat cortex correlates with silicon microelectrode array recording performance. N. NOLTA*; M. B. CHRISTENSEN; P. A. TRESCO. *Univ. of Utah.*

2:00 LL24 **445.02** Chronic single unit recordings from UEA's implanted in aged rat cortex. M. B. CHRISTENSEN*; N. F. NOLTA; P. A. TRESCO. *Univ. of Utah.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 LL25 **445.03** One size does not fit all: Calibrating microstimulation to individual subjects using spiking network models. C. KERR*; J. S. CHOI; S. DURA-BERNAL; J. T. FRANCIS; W. W. LYTTON. *State Univ. of New York, Univ. of Sydney.*

4:00 LL26 **445.04** ▲ Tanycytic Ependymoma in a Puerto Rican 76 years old male. Ependymoma is a generally slowly growing tumor of children's and young adults originating from the wall of the ventricles or from the spinal canal, and it is composed of neoplastic ependymal cells. They correspond to a WHO Grade II tumor. Tanycytic Ependymoma is a rare variant of Ependymoma usually arising in the intra medullary spine. They have a unique morphology with a close resemblance to Schwannoma and some Astrocytoma's. We present a case of a 76 years old male with a progressive paraparesis for 8 years, due to a spinal tumor. The tumor was classified as Tanycytic Ependymoma. This is a challenging diagnosis since this lesion can be confused with other tumors. Therefore, it is important to be aware of this variant of Ependymoma and its immunohistochemistry profile. To our knowledge this is the oldest patient known to have this rare tumor. It is also the first case reported in Puerto Rico. Y. ORTIZ*; I. VEGA; J. L. PEREZ. *Neuro ID, Interamerican Univ. of Puerto Rico, Univ. of Puerto Rico, Univ. of Puerto Rico, Med. Sci. Campus.*

1:00 LL27 **445.05** Antioxidant-releasing mechanically-compliant polymers to attenuate the neuroinflammatory response at the microelectrode-tissue interface. J. K. NGUYEN*; K. BUCHANAN; M. JORFI; E. FOSTER; C. WEDER; J. R. CAPADONA. *Case Western Reserve Univ., Louis Stokes Cleveland VA Med. Ctr., Univ. of Fribourg.*

2:00 LL28 **445.06** ▲ Chronic *in vivo* imaging of sciatic nerve via a peripheral nerve window. M. HAYAT; S. BRODNICK; S. KAPUR; K. ELICEIRI; L. KRUGNER-HIGBY; S. POORE; J. C. WILLIAMS*. *Univ. of Wisconsin.*

3:00 MM1 **445.07** ● Cell counts in the vicinity of implants show more neurons surrounding braided microprobes than single 50um wire-electrodes in rats' brains at 8 weeks post-implant. T. KIM*; Y. ZHONG; A. BRANNER; S. F. GISZTER. *Drexel Univ. Col. of Med., Drexel Univ.*

4:00 MM2 **445.08** Analysis of dopamine and serotonin under 2 min to further improve time resolution in on-line microdialysis. M. EYSBERG*; L. M. VAN HEERWAARDEN; H. BROUWER; N. REINHOUD. *Antec BV.*

1:00 MM3 **445.09** ● Cognitive dysfunction and augmented cellular autofluorescence in schizophrenia. T. TSUJIMURA*; A. RAMOS; C. LIN; T. SAITO; F. EMILIANI; J. GALLEGO; X. INDURKHYA; N. GAMO; M. KOGA; T. MASEDA; T. SEDLAK; Y. HORIGUCHI; K. TAGUCHI; A. MALHOTRA; C. KORTH; K. ISHIZUKA; A. SAWA. *Johns Hopkins Univ. Sch. of Med., Aomori Univ., Hostra North Shore LIJ Sch. of Med., Heinrich Heine Univ., Showa Pharmaceut. Univ., The Zucker Hillside Hosp.*

2:00 MM4 **445.10** Breath analysis for biomarkers of toxicant exposure. A. B. MANNING-BOG*; R. D. LEIB; J. D. WHITE. *SRI Intl., Stanford Univ., SRI Intl.*

POSTER

446. Comparative Anatomy and Evolution I

Theme D: Sensory and Motor Systems

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

1:00 MM5 **446.01** Distribution of teneurin-4 immunoreactivity in the central nervous system of non-human primates (Sapajus spp). K. R. TORRES DA SILVA*; A. V. DA SILVA; J. A. DE OLIVEIRA; E. ERVOLINO; A. GONÇALVES; J. C. BITTENCOURT; C. A. CASATTI. *Dept. of Basic Sci. of Sao Paulo State Univ. of Araçatuba/ UNESP, Biosci. Inst. of Sao Paulo State University/ UNESP, Federal Univ. of Mato Grosso do Sul/ UFMS, Biomed. Sci. Inst. of Sao Paulo University/ USP.*

2:00 MM6 **446.02** Revealing functional organization of frontoparietal networks in tree shrews (Tupaia belangeri) using reversible inactivation. M. K. BALDWIN*; D. F. COOKE; A. GORDON; L. A. KRUBITZER. *Univ. of California Davis, Univ. of California, Davis.*

3:00 MM7 **446.03** Interhemispheric functional connectivity is not selectively reduced in larger-brained species. B. CIPPOLINI; G. W. COTTRELL*. *UCSD, UCSD.*

4:00 MM8 **446.04** All cortices fold the same: Gyrification as a universal function of cortical surface area, not number of neurons. B. C. MOTA*; S. HERCULANO-HOUZERL; J. GOMES. *Av. Athos Da Silveira Ramos, 149, Univ. Federal do Rio de Janeiro.*

1:00 MM9 **446.05** Human and non-human primates have similar distributions of neurons along the cerebral cortex, including prefrontal cortex. M. GABI*; K. NEVES; C. MASSERON; P. RIBEIRO; L. VENTURA-ANTUNES; J. H. KAAS; S. HERCULANO-HOUZEL. *Univ. Federal Do Rio De Janeiro, Vanderbilt Univ.*

2:00 MM10 **446.06** Cellular scaling rules for marsupial brains. S. E. DOS SANTOS*; J. PORFIRIO; F. BARROS DA CUNHA; M. A. RAGHANTI; C. C. SHERWOOD; S. HERCULANO-HOUZEL. *Federal Univ. of Rio De Janeiro, Kent State Univ., The George Washington Univ.*

3:00 MM11 **446.07** More neurons allow for less sleep which allows for bigger brains: A novel mechanism for the regulation of daily sleep need accounts for the joint evolution of increased brain size and decreased sleep requirement. S. HERCULANO-HOUZEL*. *UFRJ.*

4:00 MM12 **446.08** Complex brains for complex cognition - neuronal scaling rules for bird brains. S. OLKOWICZ*; M. KOCOUREK; R. LUCAN; M. PORTES; S. HERCULANO-HOUZEL; P. NEMEC. *Charles Univ. in Prague, Univ. Federal do Rio de Janeiro.*

1:00 MM13 **446.09** Concerted and mosaic scaling of neuronal numbers and cell size in mammalian brain evolution. K. NEVES*; S. HERCULANO-HOUZEL; P. MANGER; J. H. KAAS. *Univ. Federal Do Rio De Janeiro, Univ. Federal do Rio de Janeiro, Univ. of the Witwatersrand, Vanderbilt Univ.*

2:00 MM14 **446.10** Quantitative analysis of the spatial distribution of neurons, glial cells and vasculature in the mouse brain. L. VENTURA ANTUNES*; J. MALDONADO; S. HERCULANO-HOUZEL. *Federal Univ. of Rio De Janeiro, MBF Biosci., Univ. Federal do Rio de Janeiro.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 MM15 **446.11** Anterograde and retrograde examination of prefronto-insular connections in the macaque monkey. H. C. EVRARD*; J. L. PRICE; N. K. LOGOTHETIS. *Max Planck Inst. For Biol. Cybernetics, Ctr. for Integrative Neurosci., Washington Univ., Max Planck Inst. for Biol. Cybernetics.*

4:00 MM16 **446.12** Projections of the orbital and medial prefrontal cortex to the ventral tegmental area in the macaque monkey. D. H. MOMBIELA*; M. UBERO; J. L. PRICE; R. INSAUSTI; N. K. LOGOTHETIS; H. C. EVRARD. *Univsersity of Castilla-La Mancha, Max Planck Inst. for Biol. Cybernetics, Univ. of Castilla-La Mancha, Washington Univ., Ctr. for Integrative Neurosci.*

1:00 MM17 **446.13** ▲ Insular projections to the midbrain periaqueductal gray in the macaque monkey. T. O. SALEH*; J. L. PRICE; N. K. LOGOTHETIS; H. C. EVRARD. *Ctr. for Integrative Neurosci., Washington Univ., Max Planck Inst. for Biol. Cybernetics.*

2:00 MM18 **446.14** Anterograde and retrograde analysis of the connections between the orbital and medial prefrontal cortex and the locus coeruleus in the macaque monkey. M. UBERO MARTINEZ*; D. HERNANDEZ; J. L. PRICE; R. INSAUSTI; N. K. LOGOTHETIS; H. C. EVRARD. *Max Planck Inst. for Biol. Cybernetics, Univ. of Castilla-La Mancha, Washington Univ., Ctr. for Integrative Neurosci.*

3:00 MM19 **446.15** Afferent connections of the claustrum after injection of retrograde tracers in macaques (macaca mulatta). M. GORSICH; R. GATTASS; M. MISHKIN; R. C. SAUNDERS*. *NIMH, Federal Univ. of Rio de Janeiro.*

4:00 MM20 **446.16** AMPA receptor GluR2 subunit expression level is upregulated in synapses of the cerebral cortex across primates. T. I. DUKA*; J. BAKER; 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, Holloman Air Force Base, Icahn Sch. of Med. at Mount Sinai, Wayne State Univ. Sch. of Med.*

1:00 MM21 **446.17** Marmoset motor cortex: Cortical input to areas 4 and 6D. S. BAKOLA*; K. J. BURMAN; M. G. P. ROSA. *Monash Univ.*

2:00 MM22 **446.18** Differences and similarities in neuron and cell packing densities across the cortical sheet in prosimian galagos and macaque monkeys. E. C. ROCKOFF*; N. A. YOUNG; D. K. FLAHERTY; J. H. KAAS. *Vanderbilt Univ., The Ohio State Univ.*

3:00 MM23 **446.19** The orbitofrontal cortex: Higher density of calretinin interneurons in the rhesus monkey than in the rat. D. DZAJA; Z. PETANJEK; M. T. ESCLAPEZ*. *INSERM UMR 1106, Croatian Inst. for Brain Research, Zagreb Univ., Aix-Marseille Univ.*

4:00 MM24 **446.20** Cell number and volume of primary visual cortex in primates. D. J. MILLER*; R. PATHAK; P. BALARAM; J. KAAS. *Vanderbilt Univ.*

1:00 MM25 **446.21** Morphology and topographical distribution of NADPH-diaphorase-labeled neurons and fibers in the human inferior colliculus. L. EDELSTEIN*; F. DENARO; D. HINOVA-PALOVA; B. LANDZHOV; M. MINKOV; L. MALINOVA; A. PALOFF; W. OVTSCHAROFF. *Medimark Corp., Morgan State Univ., Med. Univ., Med. Univ.*

2:00 MM26 **446.22** Dendritic scaling in the cerebellar nuclei of rats and monkeys. F. R. SULTAN*; S. HAMODEH; A. BOZKURT; M. GLICKSTEIN. *Univ. Tuebingen, UCL.*

3:00 MM27 **446.23** Biophysical constraints on the processing speed of axons conveyed by the corpus callosum: Possible role in the evolution of hemispheric asymmetry. K. A. PHILLIPS*; C. D. STIMPSON; J. B. SMAERS; M. RAGHANTI; A. POPRATILOFF; P. R. HOF; C. C. SHERWOOD. *Trinity Univ., Texas Biomed. Res. Inst., The George Washington Univ., Stony Brook Univ., Kent State Univ., Mount Sinai Sch. of Med.*

4:00 MM28 **446.24** The primary motor cortex of the horse. Comparison with other Perissodactyla and Primates. B. COZZI*; C. BALLARIN; C. BOMBARDI; P. CLAVENZANI; L. CORAIN; A. DE GIORGIO; M. GIURISATO; A. GRANDIS; S. MONTELLI; M. PANIN; A. PERUFFO; A. PIRONE; P. ZAMBENEDETTI; A. GRANATO. *Dept of Comparative Biomedicine and Food Sci. Univ. of Padova, Univ. of Bologna, Univ. of Padova, Catholic Univ. of the Sacred Heart, Univ. of Pisa, Hosp. of Dolo.*

POSTER

447. Comparative Anatomy and Evolution II

Theme D: Sensory and Motor Systems

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

1:00 MM29 **447.01** Family Matters: An intrafamily comparison of relative brain volumes within Mustelidae. A. E. HRISTOVA*; B. M. ARSZNOV; B. L. LUNDRIGAN; S. T. SAKAI. *Michigan State Univ., Minnesota State University, Mankato, Michigan State Univ., Michigan State Univ.*

2:00 MM30 **447.02** Examination of sex differences in the volumes of brain and brain regions in the Eastern Chipmunk. R. DASENDRAN; G. SCOTT; H. LEHMANN; A. IWANIUK; D. SAUCIER*. *Univ. of Ontario Inst. of Technol., Trent Univ., Univ. of Lethbridge, Univ. of Ontario Inst. of Technol.*

3:00 MM31 **447.03** Volume and cell density of midbrain regions in mice from lines selectively bred for high voluntary wheel running. Z. THOMPSON*; S. SHELTON; P. LEVIN; G. C. CLAGHORN; T. GARLAND, Jr. *Univ. of California, Riverside, Humboldt State Univ., California State University, San Bernardino, Univ. of California, Riverside.*

4:00 MM32 **447.04** A meta-analysis of multivariate analysis of brain mass correlations in eutherian mammals. S. HUGGENBERGER*; C. STEINHAUSEN; L. ZEHL; M. HAAS-RIOTH; K. MORCINEK; W. WALKOWIAK. *Inst. II of Anat., Biocenter, Inst. of Neurosci. and Med. (INM-6) and Inst. for Advanced Simulation (IAS-6), Dept. of Anat. III (Dr. Senckenbergische Anatomie).*

1:00 MM33 **447.05** Distribution of serotonergic markers in the brains of Japanese quail, European starlings, and zebra finches. K. M. YODER*; O. IYILIKCI; B. A. ALWARD; G. F. BALL. *Johns Hopkins Univ.*

2:00 MM34 **447.06** Morphological and electrophysiological properties of spiny neurons in the striatum dorsolateral of the turtle. J. BARRAL*; C. GONZALEZ-SANDOVAL; J. MENDOZA SANCHEZ; M. MATA-HERRERA. *Neurociencias (UIICSE) FES Iztacala UNAM, Inst. de Fisiología Celular UNAM, Inst. de Fisiología Celular UNAM.*

3:00 MM35 **447.07** Initial cytoarchitectonic characterization of the squamate forebrain: Case studies of the Western Diamondback rattlesnake (Crotalus atrox) and two distinct chameleon species (Trioceros jacksonii; Rieppeleon kerstenii). D. F. HUGHES; K. PENNINGTON; E. M. WALKER; B. DE HARO; C. S. LIEB; E. GREENBAUM; A. M. KHAN*. *Univ. of Texas at El Paso.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 MM36 **447.08** A high density region of retinal ganglion cells in the grasshopper mouse. B. SCHOLL*; T. A. CLARK; N. J. PRIEBE. *The Univ. of Texas At Austin.*

1:00 NN1 **447.09** Alteration of CB1 receptor density in the amygdala by kyotorphin. L. EDELSTEIN; F. J. DENARO*; B. LANDZHOV; E. DZHAMBAZOVA; L. MALINOVA; D. HINOVA-PALOVA; A. PALOFF; W. OVTSCHAROFF. *Medimark Corp., Morgan State Univ., Med. Univ., Sofia Univ. "St. Kliment Ohridski", Med. Univ.*

2:00 NN2 **447.10** The retinal projection to the pretectal nucleus lentiformis mesencephali in pigeons. D. WYLIE*; J. KOLOMINSKY; D. J. GRAHAM; T. J. L:ISNEY; C. GUTIERREZ-IBANEZ. *Univ. of Alberta, Univ. of Alberta.*

3:00 NN3 **447.11** A computational model of the octopus arm network supports modular distributed processing of sensory information. F. W. GRASSO*. *Brooklyn College, CUNY.*

4:00 NN4 **447.12** Terminal nerve-like receptors in the main olfactory epithelium of the precocious lamprey Mordacia praecox. C. A. SALAS*; N. S. HART; H. S. GILL; I. C. POTTER; S. P. COLLIN. *The Univ. of Western Australia, Murdoch Univ.*

1:00 NN5 **447.13** Olfactory and vomeronasal systems are both present in a cartilaginous Holocephalian elephant shark, Callorhinchus milii. L. L. BRUCE*; K. J. QUANDT; M. L. BARTLETT; E. GARZA-GISHOLT; S. P. COLLIN. *Creighton Univ., Univ. of Nebraska Omaha, The Univ. of Western Australia.*

2:00 NN6 **447.14** GABAergic neurons occur in larvae of the marine snail Ilyanassa obsoleta. P. A. DHARMASRI; C. S. GUNN; E. M. LEISE*. *Univ. North Carolina Greensboro.*

3:00 NN7 **447.15** The characterization of the vocal pathway of the fire-bellied toad, bombina orientalis. S. MAIER*; W. WALKOWIAK. *Univ. of Cologne, Univ. of Cologne.*

4:00 NN8 **447.16** Genealogical correspondence of learning and memory centers across phyla. G. H. WOLFF*; N. J. STRAUSFELD. *The Univ. of Arizona.*

1:00 NN9 **447.17** Neural ground patterns in deep time. N. J. STRAUSFELD*; G. D. EDGECOMBE; X. MA. *Univ. of Arizona, Natural History Museum.*

POSTER

448. Neuroendocrine Anatomy and Physiology

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

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

1:00 NN10 **448.01** Functional evolution of gonadotropin-releasing hormone and adipokinetic hormone: Studies from the sea hare, *Aplysia* californica. J. I. JOHNSON*; P. TSAI. *Univ. of Colorado Boulder.*

2:00 NN11 **448.02** Unraveling the molecular complexity of estrogen-responsive neurons in the ventromedial hypothalamus. W. C. KRAUSE*; H. A. INGRAHAM. *Univ. of California, San Francisco.*

3:00 NN12 **448.03** Neural growth hormone: Regional regulation by estradiol and/or sex chromosome complement. E. HARRIS*; K. QUINNIES; P. BONTHUIS; E. RISSMAN. *Univ. of Virginia.*

4:00 NN13 **448.04** 17β-estradiol regulates diurnal tail skin temperature of male rats. I. J. MERCHENTHALER*; M. V. LANE; S. VIECHWEG; J. A. MONG. *Dept. of Epidemiology, Anatomy/Neurobiology, Univ. of Maryland, Sch. of Med., Univ. of Maryland, Univ. of Maryland.*

1:00 NN14 **448.05** Estradiol infusions into the dorsal striatum *in vivo* rapidly increase dorsal striatal dopamine levels. W. SHAMS*; C. SANIO; W. G. BRAKE. *Concordia Univ.*

2:00 NN15 **448.06** Longitudinal characterization of neural estrogen signaling and neurotrophic changes in the Accelerated Ovarian Failure mouse model of menopause. T. A. VAN KEMPEN*; J. GORECKA; F. SOEDA; T. A. MILNER; E. M. WATERS. *Weill Cornell Med. Col., The Rockefeller Univ., Kumamoto Univ.*

3:00 NN16 **448.07** ● Viaibility evaluation in treated swine semen with streptolysin o. B. DOMINGUEZ MANCERA*; M. VALDES CANO; M. BARRIENTOS MORALES; D. ROMERO SALAS; P. CERVANTES ACOSTA; A. HERNANDEZ BELTRAN. *Univ. Veracruzana, Dept Fisiología.*

4:00 NN17 **448.08** ● Viability of the following use of streptolysin O (SLO) as swine sperm cell permealizador agent. M. BARRIENTOS*; A. I. MONTALVO DIAZ; M. VALDES CANO; B. DOMINGUEZ MANCERA; C. LAMOTHE ZAVALETA; D. ROMERO SALAS. *Univ. Veracruzana.*

1:00 NN18 **448.09** The effect of androgens and oxidative stress on COX2 signaling in dopamine neurons. S. HOLMES*; R. NAZARLI; R. L. CUNNINGHAM. *Univ. of North Texas Hlth. Sci. Ctr., Univ. of North Texas Hlth. Sci. Ctr.*

2:00 NN19 **448.10** Neurokinin 3 receptor associates with histone acetyltransferase and nuclear proteins in paraventricular neurons of the hypothalamus. A. THAKAR*; F. W. FLYNN. *Univ. of Wyoming.*

3:00 NN20 **448.11** Pubertal differences in stress-induced oxytocin and vasopressin responses in male rats. S. MINHAS; J. FLORES-GALDAMAZ; R. D. ROMEO*. *Barnard Col. of Columbia Univ.*

4:00 NN21 **448.12** Effect of polibrominated diphenyl ethers (PBDEs) on nitric oxide synthase, oxytocin and vasopressin of the hypothalamic supraoptic and paraventricular nuclei of lactating rats. E. SANCHEZ-ISLAS*; M. ÁLVAREZ-GONZÁLEZ; S. MUCIO-RAMÍREZ; M. LEÓN-OLEA. *Natl. Inst. Psychiat.*

1:00 NN22 **448.13** Expression of mineralocorticoid receptor and 11ß-hydroxysteroid dehydrogenase type 2 in the hypothalamic supraoptic nucleus of various rat strains. M. HAQUE*; A. SABRIN; R. A. WILSON; N. E. J. WANDREY; N. MILLS; R. TERUYAMA. *Louisiana State Univ.*

2:00 NN23 **448.14** Patterns of oxytocin receptor expression in the rodent central nervous system. M. MITRE*; B. J. MARLIN; S. NORDEN; R. C. FROEMKE; M. V. CHAO. *NYU Sch. of Med.*

3:00 NN24 **448.15** ▲ Dynorphin modulation of physiological prolactin surges. A. M. STATHOPOULOS*; F. S. NENNINGER; J. ARIAS-CRISTANCHO; R. CRISTANCHO-GORDO; C. V. HELENA; A. E. GONZALEZ-IGLESIAS; R. BERTRAM. *Florida State Univ., Florida State Univ.*

4:00 NN25 **448.16** Induction of c-Fos expression following heat exposure in the hypothalamus of neonatal chicks. S. KAWAKAMI*; S. SUMIHARA; Y. KUROSAWA; T. BUNGO. *Hiroshima Univ. Grad. Sch. of Biosphere Sci.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 NN26 **448.17** fMRI in the prairie vole: methods development for translational social neuroscience. W. KENKEL*; J. R. YEE; K. MOORE; P. KULKARNI; S. CARTER; C. F. FERRIS. *Northeastern Univ.*

2:00 NN27 **448.18** ▲ The effects of running wheel access on the symptoms of type-2 diabetes in TallyHo/JngJ mice. N. NASCIMENTO*; D. AMARAL; K. CARLSON; G. NASH; D. PYNE; J. A. SEGGIO. *Bridgewater State Univ.*

3:00 NN28 **448.19** Galanin-like peptide (GALP) have the anti-obesity effect and control of energy metabolism via the sympathetic nervous system. S. HIRAKO; H. KAGEYAMA*; F. TAKENOYA; N. WADA; A. KIMURA; M. OKABE; S. SHIODA. *Showa Univ. Sch. of Med., Kiryu Univ., Hoshi Univ. Sch. of Pharm. and Pharmaceut. Sci., Tokyo Shokuryo Dietitian Acad.*

4:00 NN29 **448.20** Neuropeptide Y regulates adrenal function during the counter-regulatory response to recurrent hypoglycemia. Y. MA; Q. WANG; M. D. WHIM*. *LSUHSC.*

1:00 NN30 **448.21** Glucose-dependent compensation of deficient insulin secretion in mutant mice lacking the cdk5 activator p39. C. I. BARK*; M. SKELIN; C. MATTSSON; S. A. MANDIC; Å. MATTSSON; T. DARAIO; M. JEVSEK; I. VALLADOLID ACEBES; T. HÖKFELT; K. BRISMAR; M. S. RUPNIK; P. BERGGREN. *Karolinska Inst, Karolinska Univ. Hosp., Inst. of Physiology, Fac. of Medicine, Univ. of Maribor, Karolinska Institutet.*

2:00 NN31 **448.22** Ketamine modulates TRH and TRH-like peptide turnover in brain and peripheral tissues of male rats. A. E. PEKARY*; A. SATTIN; R. L. LLOYD. *VA Greater Los Angeles Hlthcare Syst, VA Greater Los Angeles Hlthcare Syst, Univ. of Minnesota.*

3:00 NN32 **448.23** Environmental impacts on imprinted monoamine genes. P. J. BONTHUIS*; E. FERRIS; C. T. GREGG. *Univ. of Utah, New York Stem Cell Fndn. Robertson Investigator.*

POSTER

449. Male Sexual Behavior

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

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

1:00 NN33 **449.01** Glutamate controls brain estrogen synthesis during sexual interactions. C. DE BOURNONVILLE; N. AOURZ; A. VAN EECKHAUT; I. SMOLDERS; G. F. BALL; J. H. BALTHAZART*; C. A. CORNIL. *Univ. of Liege, Vrije Univ. Brussel, Johns Hopkins Univ.*

2:00 NN34 **449.02** Preoptic aromatase neurons are activated by copulation in male quail. M. CEULEERS; V. J. CHRISTOPHE; G. F. BALL; J. BALTHAZART; C. A. CORNIL*. *Univ. Liege, Johns Hopkins Univ.*

3:00 NN35 **449.03** Dopamine depletion in the medial preoptic nucleus and nucleus accumbens transiently impairs appetitive and consummatory sexual behaviors in male japanese quail. O. IYILIKCI*; J. BALTHAZART; G. F. BALL. *Johns Hopkins Univ., Univ. of Liege.*

4:00 NN36 **449.04** Arc expression in sexually-relevant brain areas following differing exposure to sexual stimuli and experience in male rats. J. TURNER*; E. A. HARVEY; T. HATTORI; R. G. WILL; D. J. TOBIANSKY; V. L. NUTSCH; J. M. DOMINUGEZ. *The Univ. of Texas At Austin, Unversity of Texas at Austin.*

1:00 OO1 **449.05** Effects of opioid and dopamine agonists and antagonists on development of sexual motivation and sexual performance in sexually naïve male rats. M. BUENROSTRO-JAUREGUI; J. JUAREZ; E. BARRIOS DE TOMASI*. *Inst. Vocacional Enrique Diaz de Leon, Inst. Neurosci.*

2:00 OO2 **449.06** Conditioned ejaculatory preference by male rats for a somatosensory cue on a female rat. G. R. QUINTANA ZUNINO*; M. JACKSON; M. NASR; A. GUIZAR; J. TOMARO; A. ARGENTO; J. G. PFAUS. *Concordia Univ.*

3:00 OO3 **449.07** Sign-tracking for sex: Individual differences in Pavlovian-conditioned approach behavior in male rats. L. SPARKS*; J. G. PFAUS. *Concordia Univ.*

4:00 OO4 **449.08** Roles for neural and non-neural androgen receptors in the organization of masculine olfactory preference. A. B. SWIFT-GALLANT*; D. ALMEIDA; B. KRETSCHMER; F. RAMZAN; L. COOME; D. A. MONKS. *Univ. of Toronto Mississauga, Univ. of Toronto, Univ. of Toronto.*

1:00 OO5 **449.09** Effect of Bromocriptine in the reactivation of male copulatory behavior after sexual satiety with the same mating female. J. ROJAS-HERNÁNDEZ; J. JUAREZ*. *Inst. de Neurociencias Univ. de Guadalajara, Univ. Guadalajara.*

2:00 OO6 **449.10** GABAergic transmission participates in the maintenance of the sexual inhibition that follows copulation to exhaustion. G. RODRIGUEZ-MANZO*; A. CANSECO-ALBA. *Cinvestav-Sede Sur, IPN.*

3:00 OO7 **449.11** ▲ A nitric oxide promoter in the medial preoptic area facilitates copulation in adult male rats. B. WISE; T. M. AUBELE-FUTCH*; E. M. HULL. *Wabash Col., Wabash Col., Florida State Univ.*

4:00 OO8 **449.12** Behavioral and neuroendocrine effects of carbon monoxide in the anterior hypothalamus. C. L. ROBISON*; T. CIRINO; O. K. HERNANDEZ; E. M. HULL. *Florida State Univ., Florida State Univ.*

1:00 OO9 **449.13** Neurobehavioral effects of cadmium after exposition until puberty in adult male rats. A. MARCELA*; T. MENDOZA-MENDOZA; J. HERNÁNDEZ-RODRIGUEZ; O. LIMÓN-MORALES; R. M. VIGUERAS-VILLASEÑOR; H. BONILLA-JAIME; S. MONTES-LÓPEZ; P. DURAN. *Univ. Autónoma Metropolitana-Iztapalapa, Inst. Nacional de Pediatria, Inst. Nacional de Neurologia y Neurocirugía "Salvador Zubirán", Facultad de Ciencias, Univ. Nacional Autónoma de México.*

2:00 OO10 **449.14** The effects of acute prenatal exposure to valproic acid and environmental enrichment on anxiety and sociosexual behaviors in male rats. S. M. HARDING*; J. A. CAPUTO; H. I. HORVATH. *Fairfield Univ.*

3:00 OO11 **449.15** ▲ Prosexual effects of cabergoline, a unique ergot derivative, in male rats. R. A. ANTONIE*; N. DEVOTO; P. DORSA; S. KIM; J. PFAUS. *Concordia Univ., Concordia Univ., Univ. of Minnesota, Univ. of Minnesota.*

4:00 OO12 **449.16** Pubertal testosterone regulates the induction of ΔFosB in the infralimbic cortex to program sexual proficiency in male Syrian hamsters. K. C. DE LORME*; A. J. ROBISON; C. L. SISK. *Gustavus Adolphus Col., Michigan State Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 OO13 **449.17** Dendritic morphology of medial preoptic neurons of ovariectomized female hybrid B6D2F1 mice that demonstrate steroid-independent male-typical reproductive behavior. J. PARK*; P. BHARADWAJ; S. VENU. *Univ. of Massachusetts, Boston, Univ. of MA, Boston.*

POSTER

450. Defensive Behavior and Aggression

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

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

1:00 OO14 **450.01** Raphe serotonin neuron-specific oxytocin receptor knockout reduces aggression but not anxiety-like behavior in male mice only. S. WILLIAMS*; J. PAGANI; J. SONG; É. MEZEY,; J. SENERTH; Z. CUI; M. H. BAUMANN; W. S. YOUNG. *NIMH, Natl. Inst. of Mental Hlth., Natl. Inst. of Dent. and Craniofacial Res., Natl. Inst. of Diabetes and Digestive and Kidney Dis., Natl. Inst. on Drug Abuse.*

2:00 OO15 **450.02** Aromatase co-localizes in serotonin neurons and is not regulated, but androgen receptors (AR) do not co-localize in serotonin neurons and are regulated in male macaques. C. L. BETHEA*; A. KIM; K. PHU. *Oregon Natl. Primate Res. Ctr.*

3:00 OO16 **450.03** Behavioral profiles and immunologic correlates of Wistar rats exposed to intermittent social defeat stress protocol. M. F. VASCONCELOS*; C. P. CHATAIN; B. L. GUAHYBA; S. W. GEHRES; F. P. KAPCZINSKI; K. A. MICZEK; R. M. M. DE ALMEIDA. *UFRGS, Tufts Univ.*

4:00 OO17 **450.04** Reduction of the vesicular acetylcholine transporter expression exacerbates aggressive behavior and the activation of vasopressinergic hypothalamic neurons. G. S. PEREIRA*; V. E. M. OLIVEIRA; L. M. PEREIRA; M. D. POLETINI; M. F. D. MORAES. *UFMG.*

1:00 OO18 **450.05** Microiontophoretic application of vasopressin, serotonin, and dopamine ligands affect the electrophysiological activity of latero-anterior hypothalamic neurons in anabolic steroid-treated hamsters. R. W. SIKES*; T. R. MORRISON; R. H. MELLONI, Jr. *Northeastern Univ., Northeastern Univ.*

2:00 OO19 **450.06** Moderate anabolic/androgenic steroid use during adolescence and adulthood differentially modulate aggression and anxiety in hamsters. R. H. MELLONI*, Jr; L. A. RICCI; T. R. MORRISON. *Northeastern Univ.*

3:00 OO20 **450.07** The role of the 5-HT_{1A} receptor in pathological aggression. D. PEETERS*; H. TOP; R. VERKES; J. HOMBERG. *Radboudumc, Donders Inst. for Brain, Cognition and Behaviour, Radboud Univ. Med. Ctr., Donders Inst. for Brain, Cognition and Behaviour, Radboud Univ. Med. Ctr.*

4:00 OO21 **450.08** Immediate early gene activation in vasopressin 1b receptor knockout mice after an agonistic encounter. S. K. WITCHEY*; E. L. STEVENSON; H. K. CALDWELL. *Kent State Univ., Kent State Univ.*

1:00 OO22 **450.09** David vs. Goliath: Heightened serotonin increases aggressive behavior in smaller competitors and influences the larger competitor's fighting strategy. A. BUBAK*; N. S. RIEGER; K. J. RENNER; J. G. SWALLOW. *Univ. of Colorado-Denver Anschutz Med. Campus, Univ. of Colorado-Denver, Univ. of South Dakota.*

2:00 OO23 **450.10** 5-HT2A modulates the interaction between low MAO A activity and early childhood maltreatment on aggression pathogenesis. S. C. GODAR*; L. J. MOSHER; A. M. RUBY; S. SCHEGGI; C. GAMBARANA; M. DE MONTIS; M. BORTOLATO. *Univ. of Kansas, Univ. of Siena.*

3:00 OO24 **450.11** Inhibition of organic cation transporter 3 (OCT3) in the central nucleus of the amygdala increases extracellular serotonin and reduces fear expression. J. E. HASSELL*, JR; H. LI; J. ROGERS; S. FERRELL; M. ORCHINIK; C. A. LOWRY; K. J. RENNER. *Univ. of South Dakota, Univ. of Colorado, Arizona State Univ.*

POSTER

451. Behavioral and Neural Effects of Gonadal Hormones

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

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

1:00 OO25 **451.01** Anabolic-androgenic steroids impair decision making on a rodent version of the Iowa Gambling Task. K. G. WALLIN*; R. I. WOOD. *Keck Sch. of Med., USC.*

2:00 OO26 **451.02** Sex differences in the strength of projections from the orbital frontal cortex to the dorsal striatum in adult rats: Implications for sex differences in inhibitory control. D. W. BAYLESS*; J. M. DANIEL. *Tulane Univ., Tulane Univ.*

3:00 OO27 **451.03** Estrogen-dopamine interactions during extinction learning in female rats. M. R. FARRELL*; K. FLICK; J. M. LIPPS; R. M. SHANSKY. *Northeastern Univ.*

4:00 OO28 **451.04** Enzymatic cleavage of PSA-NCAM alters the effects of stress and fluoxetine treatment on neural activation within the dentate gyrus. S. R. WAINWRIGHT*; C. K. BARHA; D. K. HAMSON; U. RUTISHAUSER; L. A. M. GALEA. *Univ. of British Columbia, Univ. of British Columbia, Mem. Sloan-Kettering Cancer Ctr., Univ. of British Columbia.*

1:00 OO29 **451.05** Estradiol and activation of the membrane receptor GPER decrease GPER expression but have opposing effects on cell proliferation in the hippocampus of adult female rats. C. CHOW*; P. DUARTE-GUTERMAN; S. E. LIEBLICH; L. A. M. GALEA. *Univ. of British Columbia, Univ. of British Columbia.*

2:00 OO30 **451.06** Sex differences in adult neurogenesis and IEG expression in the hippocampus after a spatial pattern separation task. S. YAGI*; S. E. LIEBLICH; L. A. M. GALEA. *Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia.*

3:00 OO31 **451.07** The ERα agonist PPT enhances place learning but impairs response learning in ovariectomized young adult rats: Viewing the role of ERK activation through a multiple memory systems lens. S. L. PISANI*; D. L. KOROL. *Univ. of Illinois at Urbana-Champaign, Syracuse Univ.*

4:00 OO32 **451.08** Prior estradiol exposure in midlife protects hippocampal estrogen receptor alpha from C terminus of Hsc70-interacting protein (CHIP)-mediated degradation in aging, ovariectomized rats. K. L. BLACK*; R. C. SPRINGER; J. M. DANIEL. *Tulane Univ., Tulane Univ.*

1:00 PP1 **451.09** Bioenergetics and Memory: Regulation by Estradiol. W. WANG*; B. T. YUHAN; D. L. KOROL; P. E. GOLD. *Syracuse Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 PP2 **451.10** The rapid effects of the combined activation of both the G-protein coupled estrogen receptor and estrogen receptor alpha in the hippocampus on learning and memory in female mice. J. LYMER*; A. PHAN; A. ROBINSON; P. ALEX; E. CHOLERIS. *Univ. of Guelph, The Scripps Res. Inst.*

3:00 PP3 **451.11** Distinct effects of estrogen receptor inhibition on novel object recognition and spatial memory consolidation in ovariectomized mice. J. KIM*; J. S. SZINTE; K. M. FRICK. *Univ. of Wisconsin-Milwaukee.*

4:00 PP4 **451.12** Gonadal hormone status predicts depressive-like behaviour in middle-aged female rats. R. MAHMOUD*; S. R. WAINWRIGHT; S. E. LIEBLICH; L. A. M. GALEA. *Univ. of British Columbia.*

1:00 PP5 **451.13** Dorsal hippocampal infusion of 17β-estradiol increases dendritic spine density in the CA1 subfield of the hippocampus in ovariectomized female mice. J. J. TUSCHER*; M. FRANKFURT; V. LUINE; K. M. FRICK. *UW-Milwaukee, Hofstra North Shore-LIJ Sch. of Med., Hunter Col. of the City Univ. of New York.*

2:00 PP6 **451.14** Effects of GnRH or GnRH plus the aromatase inhibitor letrozole on hippocampus-dependent memory and levels of hippocampal synaptic proteins in ovariectomized rats. B. S. NELSON*; J. M. DANIEL. *Tulane Univ., Tulane Univ.*

3:00 PP7 **451.15** ● Neonatal exposure to ethinyl estradiol decreased the passive avoidance performance and the expression levels of ERα in the cortex and hippocampus adult female rats. T. SHIGA*; T. J. NAKAMURA; Y. MIZOGUCHI; C. KOMINE; Y. GOTO; M. KAMISHIMA; M. YOSHIDA; Y. KONDO; M. KAWAGUCHI. *Sch. of Agriculture, Meiji Univ., Sch. of Agriculture, Meiji Univ., Sch. of Agriculture, Meiji Univ., Fac. of Pharmaceut. Sciences, Teikyo Heisei Univ., Natl. Inst. of Hlth. Sci., Fac. of Life and Envrn. Sciences, Teikyo Univ. of Sci.*

4:00 PP8 **451.16** Estradiol induces generalization of fear memories to neutral cues through estrogen receptor β. J. F. LYNCH*, III; P. A. WINIECKI; T. VANDERHOOF; S. ORTIZ; J. LONDON; D. C. RICCIO; A. M. JASNOW. *Kent State Univ.*

1:00 PP9 **451.17** Influence of estradiol on the ability of chronic IGF-I treatment to impact levels of hippocampal synaptic proteins and IGF-I receptors in ovariectomized rats. M. R. VAN ROIJEN*; B. S. NELSON; C. F. WITTY; M. N. MAINGUY; P. K. JHITA; K. M. LEE; J. M. DANIEL. *Tulane Univ., Tulane Univ.*

2:00 PP10 **451.18** Levonorgestrel and ethinyl estradiol alter novel object recognition and spatial memory in female rats. J. SIMONE*; D. BHATTI; P. V. HOLMES. *Univ. of Georgia.*

3:00 PP11 **451.19** Low chronic estradiol facilitates haloperidol to restore deficits in reversal learning. A. ALMEY*; J. OLIEL; L. ARENA; W. G. BRAKE. *Concordia Univ.*

4:00 PP12 **451.20** [Unable to Attend] Differential effects of androgens and sex on adult neurogenesis in the dentate gyrus of aged male and female rats. D. K. HAMSON*; S. R. WAINWRIGHT; C. CHOW; J. F. LALANZA; D. T. SAMUEL; N. V. WATSON; L. A. M. GALEA. *Univ. of British Columbia, Univ. of British Columbia, Universitat Autònoma De Barcelona, Simon Fraser Univ.*

1:00 PP13 **451.21** Two cell-signaling mechanisms for one mnemonic outcome: How progesterone facilitates memory consolidation in the dorsal hippocampus. A. M. FORTRESS*; K. M. FRICK. *Univ. of Wisconsin - Milwaukee.*

2:00 PP14 **451.22** GnRH attenuates the detrimental effects of antagonism of G protein-estrogen receptor (GPER) on memory performance of middle-aged ovariectomized rats. J. DARLING*; G. PEARL; Y. SAKAMOTO; J. M. DANIEL. *Tulane Univ., Tulane Univ.*

3:00 PP15 **451.23** Estradiol regulates dendrite length in the central nucleus of the amygdala in female rats. L. M. FLANAGAN-CATO*; S. L. FERRI; P. F. HILDEBRAND. *Univ. Pennsylvania, Univ. Pennsylvania, Univ. Pennsylvania.*

4:00 PP16 **451.24** Impact of acute IGF-1 administration on estradiol-regulated proteins in the hippocampus of ovariectomized rats: Implications for ligand-independent activation of estrogen receptors. E. M. GRISSOM*; J. M. DANIEL. *Tulane Univ., Tulane Univ.*

1:00 PP17 **451.25** ▲ The effect of time of day on musk shrew sexual behavior. K. VASILOFF; K. KELLY; L. M. FREEMAN*. *Mary Baldwin Col.*

2:00 PP18 **451.26** ● Sociosexual behaviors during the transition from non-receptivity to receptivity in rats housed in a seminatural environment. X. CHU*; A. ÅGMO. *Univ. of Tromsø.*

3:00 PP19 **451.27** Stress hyporesponsiveness during pregnancy and lactation in the rat: A role for the intestinal microbiota? P. E. MANN*; R. S. BRIDGES; K. HUYNH; G. WIDMER. *Tufts Univ. Cummings Sch. of Vet. Med., Tufts Univ. Cummings Sch. of Vet. Med.*

POSTER

452. HPA Axis

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

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

1:00 PP20 **452.01** The estrogen action on response of the hypothalamic-pituitary-adrenal axis to the hemorrhagic stress is not modulated by oxytocin. P. C. BARCELLOS-FILHO*; L. M. S. ALVES; G. A. A. TRASLAVIÑA; C. R. FRANCI. *Ribeirão Preto Sch. Med.*

2:00 PP21 **452.02** Ketogenic diet induces over-activity of the HPA axis: Necessity and sufficiency of metabolic ketosis. A. E. BRUESTLE PACKARD*; K. K. RYAN; K. HALCOMB; R. J. SEELEY; Y. M. ULRICH-LAI. *Univ. Cincinnati, Univ. Cincinnati.*

3:00 PP22 **452.03** ● Atrazine activation of the hypothalamic-pituitary-adrenal axis. C. D. FORADORI*; R. J. KEMPPAINEN; A. D. ZIMMERMAN; M. A. JONES; K. YI; C. B. BRECKENRIDGE; L. R. HINDS; J. E. HEALY; R. J. HANDA. *Auburn Univ. Col. of Vet. Med., Syngenta Crop Protection LLC, Univ. of Arizona, Col. of Medicine–Phoenix.*

4:00 PP23 **452.04** Role of central glucagon-like peptide-1 in stress excitation. S. GHOSAL*; P. MAHBOD; J. M. MCKLVEEN; E. P. SMITH; R. J. SEELEY; D. A. D'ALESSIO; J. P. HERMAN. *Univ. of Cincinnati, Univ. of Cincinnati.*

1:00 PP24 **452.05** Role of PACAP and its receptors in the mouse stress response determined by knockout phenocopy experiments. Z. JIANG*; I. THISTLETHWAITE; E. WEIHE; T. MUSTAFA; L. E. EIDEN. *NIMH, Philipps Univ. Marburg.*

2:00 QQ1 **452.06** Effect of reproductive condition on the hypothalamic-pituitary-adrenal axis of a terrestrial salamander. J. R. THOMAS*; S. K. WOODLEY. *Duquesne Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 QQ2 **452.07** Stress system activation by a natural reward: Responses to novel and repeated sucrose intake. A. E. EGAN*; Y. M. ULRICH-LAI. *Univ. of Cincinnati.*

4:00 QQ3 **452.08** The impact of toll-like receptor 4 on the hypothalamus ~ pituitary ~ adrenal axis structure and function. M. R. HUTCHINSON*; J. LIU; F. BUISMAN-PIJLMAN. *Univ. Adelaide, Univ. Adelaide.*

1:00 QQ4 **452.09** Hypothalamic microcircuits responsible for stereotyped behavior following stress. T. FÜZESI*; J. I. WAMSTEEKER CUSULIN; W. INOUE; J. S. BAINS. *Univ. of Calgary.*

2:00 QQ5 **452.10** Brainstem noradrenergic afferents excite hypothalamic neurons through glutamate co-release. W. INOUE*; T. FUZESI; D. BAIMOUKHAMETOVA; Q. PITTMAN; J. BAINS. *Hotchkiss Brain Institute, Dept. of Physiol. & Pharmacology, Univ. O, Robarts Res. Institute, Dept. Physiol. & Pharmacology, Western Univ., Hotchkiss Brain Institute, Dept. Physiol. & Pharmacology, Univ. of Calgary.*

3:00 QQ6 **452.11** New Aspect of Anxiety Behavior, a View from the PVN Crh. R. ZHANG*; M. ASAI; M. JOACHIM; Y. SHEN; C. B. SAPER; J. A. MAJZOUB. *Childrens Hospital, Harvard Med. Sch., Nagoya Univ. Grad. Sch. of Med., Harvard Med. Sch.*

4:00 QQ7 **452.12** Attenuated activation of glucagon-like peptide-1 (GLP-1)- and prolactin-releasing peptide (PrRP)-positive hindbrain neurons may contribute to fasting-mediated reductions in anxiety-like behavior and paraventricular hypothalamic (PVN) responses to cognitive stress. J. MANISCALCO*; P. J. GORDON; L. RINAMAN. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

1:00 QQ8 **452.13** Hindbrain catecholaminergic projections to the paraventricular nucleus are required for activation of glutamatergic terminals by glycemic challenges. C. S. JOHNSON*; A. G. WATTS. *USC.*

POSTER

453. Monoamines and Other Regulators

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

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

1:00 QQ9 **453.01** A high ratio of dietary lysine to tryptophan suppressed kynurenic acid production in rat brain. T. FUKUWATARI*; A. OKUNO; S. MATSUTANI; S. GOTO; K. SHIBATA. *Univ. Shiga Pref.*

2:00 QQ10 **453.02** Localization of FABP3 in the mouse cingulate cortex and its possible role in the regulation of inhibitory neurons. Y. YAMAMOTO*; K. SHARIFI; A. ISLAM; M. EBRAHIMI; Y. YASUMOTO; H. MIYAZAKI; Y. KAGAWA; T. SAWADA; N. TOKUDA; K. FUKUNAGA; Y. OWADA. *Yamaguchi Univ., Tohoku Univ.*

3:00 QQ11 **453.03** Effects of bariatric interventions on sweet reward seeking. W. HAN*; J. NIU; G. J. SCHWARTZ; I. E. DE ARAUJO. *John B. Pierce Lab., Dept Psychiatry Yale university, Albert Einstein Col. of Med.*

4:00 QQ12 **453.04** ▲ Pramipexole decreases the discriminative stimulus effects produced by 22 hours food deprivation. M. A. VANDEN AVOND*; M. A. BARLOW; C. A. TODDES; B. GOMER; B. BERTI; K. J. OLSON; A. R. JOHNSON; D. C. JEWETT. *Univ. Wisconsin-Eau Claire.*

1:00 QQ13 **453.05** AMPK signaling is associated with synphilin-1-induced obesity. T. LI; J. LIU; D. YANG; A. MOGHADAM; P. CHOI; X. LI; S. BI; T. H. MORAN; W. SMITH*. *Univ. of Maryland Sch. of Pharm., Johns Hopkins Sch. of Med.*

2:00 QQ14 **453.06** CB1 receptors into the Prelimbic Cortex modulate food intake in fasted rats. A. A. SCOPINHO*; L. B. M. RESSTEL; F. M. A. CORRÊA. *FMRP-USP, Sch. of Med. of Ribeirão Preto, Univ. of São Paulo.*

3:00 QQ15 **453.07** Single rapamycin administration induces prolonged downward shift in defended body weight in rats. M. HEBERT; M. LICURSI; S. MILWAY; V. GRANT; C. W. MALSBURY*; M. HIRASAWA; J. BLUNDELL. *Mem. Univ. of Newfoundland.*

4:00 QQ16 **453.08** Blocking nitric oxide produces diet-dependent excitation or inhibition of feeding in rats with low motivation to eat. N. HAZUT; A. SUSSWEIN; A. WELLER*. *Bar-Ilan Univ., Bar-Ilan Univ., Bar Ilan Univ.*

1:00 QQ17 **453.09** Synthesis and characterization of a novel cannabinoid receptor 1 antagonist, ENP 11. O. AMANCIO BELMONT*; M. MÉNDEZ-DÍAZ; E. HERNÁNDEZ-VÁZQUEZ; F. HERNÁNDEZ-LUIS; A. RUIZ CONTRERAS; O. PROSPÉRO-GARCÍA. *UNAM, UNAM, UNAM.*

2:00 QQ18 **453.10** High-fat diet decrease GABA concentration in the frontal cortex of rats. C. SANDOVAL SALAZAR*; J. RAMIREZ-EMILIANO; S. A. TREJO-BAHENA; M. SOLÍS-ORTIZ. *Univ. De Guanajuato.*

3:00 QQ19 **453.11** Methylation of a thiols and thioethers by human indolethylamine-n methyl transferase. T. A. MAVLYUTOV*; U. B. CHU; A. SCHULMAN; E. BAKER; R. RAJ; M. L. EPSTEIN; N. V. COZZI; L. GUO; A. E. RUOHO. *Univ. of Wisconsin, Univ. of Wisconsin, Univ. of Wisconsin.*

4:00 QQ20 **453.12** Galanin like peptide gene expression in neural lobe of rat pituitary; effect of milk deprivation and refeeding. M. GOTO; Y. YAMAMOTO*; K. KUBO; M. ISHII; R. SAITO; S. ARAKI; R. KAWAGOE; Y. KAWADA; K. KUSUHARA. *Univ. Occupat & Environ Hlth.*

1:00 QQ21 **453.13** Interleukin-1 receptor-expressing cells in the arcuate hypothalamus mediate peripheral interleukin-1-induced hypophagia. J. KONSMAN*; L. CHASKIEL; A. BRISTOW; R. DANTZER. *CNRS UMR 5536 RMSB / Univ. Bordeaux, INRA-CNRS, NIBSC, Anderson Cancer Ctr.*

2:00 QQ22 **453.14** Glucagon-like peptide-1 (GLP-1) modulation of shaker potassium channel (Kv1.3) in the olfactory bulb. N. THIEBAUD*; I. LLEWELLYN-SMITH; F. GRIBBLE; F. REIMANN; S. TRAPP; D. A. FADOOL. *The Florida State Univ., Flinders Univ., Cambridge Inst. for Med. Res., Univ. Col. London, The Florida State Univ.*

3:00 QQ23 **453.15** Effects of chronicle central insulin infusion on food intake in female rats in different reproductive states. A. C. KISS*; A. A. NUNES; M. O. KLEIN; L. F. FELÍCIO; B. WOODSIDE. *Sao Paulo State University, UNESP Botucatu, Univ. of Sao Paulo, Univ. of Sao Paulo, Concordia Univ.*

4:00 QQ24 **453.16** Fasting enhances pyroglutamyl peptidase II activity in tanycytes of the mediobasal hypothalamus and thyroliberinase in the serum of male adult rats. I. LAZCANO; P. JOSEPH-BRAVO; E. SÁNCHEZ; J. CHARLI*. *Univ. Nacional Autonoma de Mexico (UNAM), Inst. Nacional de Psiquiatría Ramón de la Fuente Muñíz, Inst. de Biotecnología, Univ. Nacional Autonoma de Mexico (UNAM).*

1:00 QQ25 **453.17** Is unopposed ghrelin signaling a cause of infertility and obesity in leptin receptor deficient mice? C. ANCEL*; S. A. GEORGE; M. INGLIS; G. M. ANDERSON. *Ctr. For Neuroendocrinology.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 QQ26 **453.18** Role of peroxisome proliferator-activated receptor γ in appetite control. J. GARRETSON*; V. RYU; B. TEUBNER; T. BARTNESS. *Georgia State Univ.*

3:00 QQ27 **453.19** Klotho is a fasting-induced gene in the hypothalamus. T. KOMORI*; Y. MORIKAWA. *Dept. of Anat. & Neurobiology, Wakayama Med. Univ.*

4:00 QQ28 **453.20** A role for calorie restriction and ghrelin on immediate early gene expression and hippocampal plasticity: Implications for learning and memory. J. S. DAVIES*; A. K. E. HORNSBY; Y. T. REDHEAD; T. WELLS; Z. B. ANDREWS; M. R. BROWN. *Swansea Univ., Cardiff Univ., Monash Univ., Swansea Univ.*

1:00 QQ29 **453.21** The interaction of ghrelin and endocannabinoid systems within the VTA is necessary and important for the modulation of food intake. A. W. EDWARDS*; S. ROSENBAUM; A. ABIZAID. *Carleton Univ.*

2:00 QQ30 **453.22** ▲ A novel effect for xenopsin: stimulating food intake. B. MCCONN*; J. PARK; E. R. GILBERT; M. A. CLINE. *Virginia Tech.*

3:00 QQ31 **453.23** A neuropeptide initiates feeding pauses in Trichoplax adhaerens. C. SMITH; E. HAMID; T. S. REESE*. *NIH, NINDS, NIH.*

4:00 QQ32 **453.24** Maternal high fat nutrition and its transgenerational effects. M. O. KLEIN*; C. N. TOBARUELA; E. TEODOROV; A. C. I. KISS; L. F. FELICIO. *Univ. De São Paulo - Faculdade De Medicina Veterinária E Zootecnia, Univ. de São Paulo - Inst. de Ciências Biomédicas, Univ. Federal do ABC, Univ. Estadual de São Paulo - Inst. de Biociências de Botucatu.*

1:00 QQ33 **453.25** Neuropeptide Y regulates the hematopoietic stem cell niche in bone marrow. J. BAE*; M. PARK; J. LEE; H. JIN. *Kyungpook Natl. Univ., BK21 Plus KNU Biomed. Convergence Program, Kyungpook Natl. Univ., Kyungpook Natl. Univ.*

POSTER

454. Suprachiasmatic Nucleus and Circadian Rhythms

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

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

1:00 QQ34 **454.01** ▲ The effects of larval ethanol exposure on type-2 photic phase shifting stimuli in period mutants of *Drosophila melanogaster*. D. AMARAL*; G. C. NASH; K. N. CARLSON; N. F. NASCIMENTO; D. PYNE; J. A. SEGGIO. *Bridgewater State Univ.*

2:00 QQ35 **454.02** GABAA receptor δ and γ2 subunits are expressed in a 24 hour pattern in the suprachiasmatic nucleus of male syrian hamsters. J. C. WALTON*; H. E. ALBERS; J. K. MCNEILL, IV; A. P. ROSS. *Georgia State Univ.*

3:00 QQ36 **454.03** Real time monitoring of clock gene expression in the suprachiasmatic nucleus from freely moving mice. D. ONO*; K. HONMA; S. HONMA. *Hokkaido Univ. Grad. Sch. of Med., Hokkaido Univ. Grad. Sch. of Med.*

4:00 RR1 **454.04** Comprehensive transcriptomics of the suprachiasmatic nuclei uncovers LHX1 requirement for circadian behavior. M. HATORI*; S. GILL; L. MURE; M. GOULDING; D. D. M. O'LEARY; S. PANDA. *Keio University, Sch. of Med., Salk Inst. for Biol. Studies.*

1:00 RR2 **454.05** Distinct firing properties of vasoactive intestinal peptide- (VIP-) expressing neurons drive coordinated electrical activity in the suprachiasmatic nucleus. T. HERMANSTYNE*; C. L. SIMMS; E. D. HERZOG; J. M. NERBONNE. *Washington University, St. Louis Sch. of Med., Washington University, St. Louis Sch. of Med.*

2:00 RR3 **454.06** VIP neurons in the suprachiasmatic nucleus of neonatal mice with disrupted fibroblast growth factor signaling. A. MILLER*; S. KAVANAUGH; P. TSAI. *Univ. of Colorado at Boulder.*

3:00 RR4 **454.07** Initial characterization of circadian phenotype in ApoE knockout mice. N. DE ZAVALIA*; A. DAYANANDAN; B. ROBINSON; A. BERGDAHL; S. AMIR. *Concordia Univ., Concordia Univ.*

4:00 RR5 **454.08** A comparison of neuronal activity and CRY1 expression in the suprachiasmatic nucleus and subparaventricular zone of diurnal tree shrews. L. M. HABLITZ*; J. R. PAUL; L. A. MCCOLLUM; J. T. SIEGWART; R. C. ROBERTS; T. T. NORTON; K. L. GAMBLE. *Univ. of Alabama At Birmingham, The Univ. of Alabama at Birmingham, The Univ. of Alabama at Birmingham.*

1:00 RR6 **454.09** Optogenetic manipulation of suprachiasmatic nuclei neurons modulates circadian behavior. M. TACKENBERG*; J. R. JONES; D. G. MCMAHON. *Vanderbilt Univ., Vanderbilt Univ.*

2:00 RR7 **454.10** Influence of light condition to physiological response and neurotransmitters. T. MATSUMURA*; H. NAKAGAWA; K. SUZUKI; C. NINOMIYA; S. YANAGITA; H. HASEGAWA; T. ISHIWATA. *Rikkyo Univ., Rikkyo Univ., Dept. of Sci. & Technology, Tokyo Univ. of Sci., Grad. Sch. of Integrated Arts & Sciences. Hiroshima Univ.*

3:00 RR8 **454.11** Copper in the suprachiasmatic nucleus clock: Exploring interactions between Cu transporters, homeostasis, and circadian neuronal activity *in vitro*. Y. YAMADA*; R. A. PROSSER. *Univ. of Tennessee.*

4:00 RR9 **454.12** ATP signaling synchronizes ensemble rhythms among suprachiasmatic nucleus astrocytes. A. C. CAMACHO*; A. D. WOMAC; N. NEUENDORFF; Y. F. FARNELL; D. J. EARNEST; M. J. ZORAN. *Texas A&M Univ., Texas A&M Univ.*

1:00 RR10 **454.13** LRP1 modulates phase shifting in the mammalian circadian clock partly independent of interactions with tPA. J. COOPER*; R. A. PROSSER. *Univ. of Tennessee.*

2:00 RR11 **454.14** Inhibiting matrix metalloproteinases 2 and 9 phase shifts neuronal activity rhythms in the suprachiasmatic nucleus. K. E. ABRAHAMSSON*; R. A. PROSSER. *Univ. of Tennessee, Knoxville, Univ. of Tennessee.*

3:00 RR12 **454.15** A possible role for the Neuronal calcium protein, neurocalcin delta, in photoentrainment of circadian rhythms. J. ZHANG*; R. SWANSON; A. KRISHNAN; V. VENKATARAMAN. *Rowan University- Sch. of Osteo. Med., Temple Univ.*

4:00 RR13 **454.16** Cytosolic calcium mobilizations and resetting of molecular clock oscillations via M3 muscarinic receptors in human retinal pigment cells. M. IKEDA*; H. AKECHI; M. TAKEDA; K. TAKEUCHI; T. EBISAWA. *Toyama Univ., Univ. of Toyama, Tokyo Metropolitan Police Hosp.*

1:00 RR14 **454.17** Effect of sodium light on circadian rhythms in mouse and rat. X. CHEN*; G. J. DEMARCO. *Pfizer Inc.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 RR15 **454.18** ▲ The effect of long-term non-contiguous blockade of $GABA_A$ receptors in the SCN on light-induced phase shifts. P. WALKER, II; J. S. BROWN; E. RUSSOM; A. PEGGINS; H. E. ALBERS; D. L. HUMMER*. *Morehouse Col., Georgia State Univ., Ctr. for Behavioral Neurosci.*

3:00 RR16 **454.19** Response of circadian locomotor activity rhythms to injections of the CB1 agonist Win 55, 212-2. A. C. KLEIN*; E. M. MINTZ. *Kent State Univ., Kent State Univ.*

4:00 RR17 **454.20** Response of the orexin, mch, npy and alpha msh neuronal population to different food schedules. O. RAMÍREZ PLASCENCIA*; G. MARTEL-GALLEGOS; C. ESCOBAR; N. SADERI; R. SALGADO-DELGADO. *Univ. Autónoma de San Luis Potosí, Univ. Autónoma de San Luis Potosí, Univ. Autónoma de San Luis Potosí, Univ. Nacional Autónoma de México.*

1:00 RR18 **454.21** Sex differences in the response to exposure to light at night and high fat diet during early life. Y. M. CISSE*; R. J. NELSON. *The Ohio State Univ. Wexner Med. Ctr.*

2:00 RR19 **454.22** Circadian nursing synchronizes septum, bed nucleus of the stria terminalis and preoptic area in rabbit does. J. AGUIRRE-CHIÑAS; E. MEZA*; S. WALISZEWSKI; R. C. ZEPEDA; M. CABA. *Univ. Veracruzana, Univ. Veracr, Univ. Veracruzana, Univ. Veracruzana.*

3:00 RR20 **454.23** Novel responses of daily wheel-running activity rhythms to restricted feeding cycles in mice. A. RASTOGI; J. A. MURPHY; E. M. MINTZ*. *Kent State Univ., Kent State Univ.*

4:00 RR21 **454.24** Food anticipatory activity is regulated by tissue plasminogen activator and is influenced by biological sex. J. A. MURPHY*; L. E. MORELAND; E. M. MINTZ. *Kent State Univ., Kent State Univ.*

1:00 RR22 **454.25** Phase shifting the circadian clock with sleep deprivation: An EEG analysis of responders and non responders. P. BASU; J. MACDONELL; F. CORTESE; M. C. ANTLE*. *Univ. of Calgary, Univ. of Calgary.*

2:00 RR23 **454.26** The effects of unilateral adrenalectomy to cyclic rats on corticosterone serum levels do not depend on the hour and day of the cycle when surgery was performed. R. DOMINGUEZ*; G. D. CORTÉS; J. C. MUÑOZ; C. C. SILVA; D. P. BENÍTEZ; M. CRUZ; A. FLORES. *FES Zaragoza UNAM.*

3:00 RR24 **454.27** Glucocorticoid-dependent diurnal modulation of conditioned fear extinction and recall. L. R. WOODRUFF*; B. GREENWOOD; L. E. CHUN; L. R. HINDS; S. FARDI; R. L. SPENCER. *Univ. of Colorado At Boulder, Univ. of Colorado Boulder, Univ. of Colorado Boulder, Univ. of Colorado Boulder.*

4:00 RR25 **454.28** Skimming the surface: Elucidating cellular mechanisms associated with tolerance to alcohol using the suprachiasmatic nucleus (SCN). J. H. LINDSAY*; J. D. GLASS; R. A. PROSSER. *Univ. of Tennessee Knoxville, Kent State Univ., Univ. of Tennessee.*

1:00 RR26 **454.29** ▲ Caffeine potentiates circadian photic phase-resetting and delays light-entrained onset in mice. N. M. VERBANES; C. F. ZISK; L. N. MARINOS; J. D. DIETZEL; C. M. MAZIARZ; C. L. RUBY*. *Indiana Univ. of Pennsylvania.*

2:00 RR27 **454.30** Pronounced impact of out of phase food intake on learning and memory. D. H. LOH*; R. E. FLORES; D. TRUONG; S. A. JAMI; C. A. GHIANI; T. J. O'DELL; C. S. COLWELL. *Univ. of California - Los Angeles, Univ. of California - Los Angeles.*

POSTER

455. Face and Scene Perception

Theme F: Cognition and Behavior

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

1:00 RR28 **455.01** Structural connectivity with the prefrontal cortex predicts amygdala response during emotional face processing in children. T. NASH; T. NGUYEN; N. TURNER; P. KOHN; K. ROE; M. GREGORY; S. KIPPENHAN; H. RAAB; D. BOYLE; S. WEI; P. MARTINEZ; J. B. CZARAPATA*; P. SCHMIDT; K. BERMAN. *NIMH/NIH, NIMH.*

2:00 RR29 **455.02** Morphometric comparisons of homosexual and heterosexual celebrity faces. J. CANNON*; E. AKPAN, Jr. *Univ. of Scranton, Univ. of Scranton.*

3:00 RR30 **455.03** Memory for a panoramic visual environment shapes moment-to-moment scene representations. C. E. ROBERTSON*; K. HERMANN; D. KRAVITZ; N. KANWISHER. *Harvard Society of Fellows, McGovern Inst. for Brain Res., MIT, The George Washington Univ.*

4:00 RR31 **455.04** Turning the body inside-out: Insular cortex activity reflects interoceptive and exteroceptive integration - A 7T study. M. BLEFARI*; R. MARTUZZI; A. SERINO; O. BLANKE. *Swiss Federal Inst. of Technol. (EPFL) Lausanne, Switzerland, Lab. of Cognitive Neurosci., Dept. of Neurology, Univ. Hosp.*

1:00 RR32 **455.05** Dopamine D2-type receptor availability contributes to neural activation in the human amygdala during performance of a facial affect-matching task. K. OKITA*; D. GHAREMANI; C. ROBERTSON; M. MANDELKERN; E. LONDON. *UCLA, VA Greater Los Angeles Healthcare Systems, Univ. California, Irvine.*

2:00 RR33 **455.06** Neural correlates of body representation impairments after stroke. H. E. VAN STRALEN; J. M. BIESBROEK; D. SLUITER; H. M. A. VAN GEMERT; L. J. KAPPELLE; M. J. E. VAN ZANDVOORT; G. J. BIESSELS; C. DIJKERMAN*. *Utrecht Univ., Univ. Med. Ctr. Utrecht, Utrecht Univ., Meander Med. Ctr.*

3:00 RR34 **455.07** Behavioral evidence that ultra-fast face detection relies on early, non-holistic face representations. F. CAMPANA*; J. J. MARTIN; X. JIANG; S. J. THORPE; M. RIESENHUBER. *Georgetown Univ., CERCO, Georgetown Univ. Med. Ctr.*

4:00 RR35 **455.08** Impact of task context on the cortical representations of real-world scenes. M. KING*; A. HAREL; D. KRAVITZ; C. BAKER. *Natl. Inst. of Mental Hlth., The George Washington Univ.*

1:00 RR36 **455.09** ▲ Are individual differences in perception of bistable figures related to visual imagery preference? L. TAYLOR; S. A. LACEY*; Y. DOAN; K. SATHIAN. *Emory Univ.*

2:00 RR37 **455.10** The nature of texture representation in the PPA. J. PARK*; S. PARK. *Johns Hopkins Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 RR38 **455.11** Eye-tracking parameters on visual scenes with emotional content. W. C. DE SOUZA*; A. M. MELCHIADES; G. A. JANCZURA; M. A. G. FEITOSA. *Univ. of Brasília.*

4:00 RR39 **455.12** Decoding face retrieval and reconstructing face perception from activity patterns in posterior parietal cortex. H. LEE*; A. S. COWEN; B. A. KUHL. *Dept. of Psychology, New York Univ., Univ. of California Berkeley, New York Univ.*

1:00 RR40 **455.13** Cortisol variation at retrieval differentially impacts memory for objects and backgrounds in emotional scenes. K. R. MICKLEY STEINMETZ*; B. E. FLEMMING; A. M. HENSON. *Wofford Col., Wofford Col.*

2:00 RR41 **455.14** Commonalities between visual art and music in insular cortex revealed by hemispheric asymmetry for visual but not for blind drawing. L. T. LIKOVA*; S. NICHOLAS. *Smith-Kettlewell Eye Res.*

POSTER

456. Direct Current Stimulation

Theme F: Cognition and Behavior

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

1:00 RR42 **456.01** ▲ Comparison of cognitive training vs transcranial Direct Current Stimulation on performance of a “Cyber Defense” multi-task. E. CLAYTON; D. CISLER; R. MCKINLEY; M. BIKSON; P. M. GREENWOOD*; R. PARASURAMAN. *George Mason Univ., Wright-Patterson AFB, City Col. of New York of CUNY.*

2:00 RR43 **456.02** Intensive working memory training transfers to everyday functioning and alters connectivity between the dorsal and ventral attention networks. D. CISLER*; M. STRENZIOK; R. PARASURAMAN; P. M. GREENWOOD. *George Mason Univ.*

3:00 RR44 **456.03** Transcranial direct current stimulation differentially influences implicit and explicit memory in a multi-task. M. R. SCHELDRUP*; J. VANCE; R. MCKINLEY; M. BIKSON; R. PARASURAMAN; P. GREENWOOD. *George Mason Univ., George Mason Univ., 711th Human Performance Wing, City Univ. of New York.*

4:00 RR45 **456.04** Augmenting mirror visual feedback by transcranial direct current stimulation. P. RAGERT*; E. VON REIN; M. HOFF; E. KAMINSKI; B. SEHM; C. J. STEELE; A. VILLRINGER. *Max Planck Inst. Leipzig, Max Planck Inst. Leipzig.*

1:00 RR46 **456.05** Facilitating mirror visual feedback in the elderly by transcranial direct current stimulation. M. HOFF*; E. KAMINSKI; V. RJOSK; B. SEHM; C. STEELE; A. VILLRINGER; P. RAGERT. *Max Planck Inst. For Human Cognitive and Brain.*

2:00 RR47 **456.06** Parietal direct current stimulation during sensory-motor learning with reversed vision prevents performance gains and increases in cortical excitability in the untrained hand. M. VESIA*; E. M. STIKSRUD; R. PELLICCIARI; R. CHEN. *Toronto Western Res. Inst.*

3:00 RR48 **456.07** Transcranial direct current stimulation over left angular gyrus decreases the perceptual association between actions and outcomes. N. KHALIGHINEJAD*; P. HAGGARD. *Inst. of Cognitive Neurosci.*

4:00 RR49 **456.08** Enhancing the mirror illusion with transcranial direct current stimulation. S. JAX*; D. ROSA-LEYRA; H. COSLETT. *Moss Rehabil. Res. Inst., Univ. of Pennsylvania.*

1:00 RR50 **456.09** Alternatives to water for the conductance of current during transcranial direct current stimulation. J. H. KANE; M. S. SHERWOOD; J. G. PARKER; M. P. WEISEND*. *Wright State Res. Inst., Wright State Univ.*

2:00 SS1 **456.10** Non-invasive cervical direct current stimulation produces changes in the human motor pathway. S. FITZPATRICK*; J. L. TAYLOR. *Neurosci. Res. Australia, Univ. of New South Wales.*

3:00 SS2 **456.11** Transcranial direct current stimulation (tDCS) over the primary motor cortex during training enhances over-night consolidation of newly-learned ballistic thumb skill. S. KOYAMA*; S. TANAKA; S. TANABE; N. SADATO. *Natl. Inst. For Physiological Sci., Hamamatsu Univ. Sch. of Med., Fujita Hlth. Univ.*

4:00 SS3 **456.12** The effect of low current brain stimulation on performing statistical calculations. R. A. HOUSER*; S. THOMA; M. STANTON. *The Univ. of Alabama, The Univ. of Alabama.*

1:00 SS4 **456.13** Effect of SI stimulation on visuo-proprioceptive realignment. H. J. BLOCK*; P. CELNIK. *Indiana Univ., Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med.*

POSTER

457. Human Learning: Feedback, Reinforcement, and Reward

Theme F: Cognition and Behavior

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

1:00 SS5 **457.01** Testing orbitofrontal contributions to formation of a value-based attentional set in a two dimension probabilistic reversal-learning task. A. R. VAIDYA*; L. K. FELLOWS. *McGill Univ.*

2:00 SS6 **457.02** Action success, not reward value, governs trial-by-trial biases during rapid reach planning. C. S. CHAPMAN*; J. P. GALLIVAN; J. T. ENNS. *Univ. of Alberta, Queen’s Univ., Univ. of British Columbia.*

3:00 SS7 **457.03** Human conditioned place preferences using secondary reinforcers. R. S. ASTUR*; A. PALMISANO; A. CAREW; B. DEATON; F. KUHNEY; R. NIEZRECKI; E. HUDD; K. MENDICINO; C. RITTER. *Univ. of Connecticut.*

4:00 SS8 **457.04** Dopamine is necessary for reward-related incidental learning improvements: Evidence from patients with Parkinson’s disease. M. V. FREEDBERG*; E. HAZELTINE. *Univ. of Iowa, The Univ. of Iowa.*

1:00 SS9 **457.05** Electrophysiological correlates of violations of consumers’ price expectations in a simulated shopping task. A. SCHAEFER*; L. G. BURATTO. *Monash Univ., Durham Univ.*

2:00 SS10 **457.06** Is model fitting necessary for model-based fMRI? R. C. WILSON; Y. NIV*. *Princeton Univ.*

3:00 SS11 **457.07** The neural correlates of probabilistic and volatile rewards during decision making. H. WANG; M. SHU; Y. CHEN; T. CHEN; C. XU; Z. WANG; T. YANG*. *Inst. of Neurosci.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 SS12 **457.08** Human associative learning is enhanced by the subliminal emotional primer. N. WATANABE*; M. HARUNO. *Nagoya university, Japan Society for Promotion of Sci., Natl. Inst. of Information and Communications Technol.*

1:00 SS13 **457.09** Reward feedback stimuli elicit high-beta oscillations in human dorsolateral prefrontal cortex. A. HAJIHOSSEINI*; C. B. HOLROYD. *Univ. of Victoria.*

2:00 SS14 **457.10** Perceptual salience and reward both influence feedback-related neural activity arising from choice. B. LOU*; P. SAJDA. *Columbia Univ.*

3:00 SS15 **457.11** Effects of the target setting on the motor skill learning and motivation in healthy people. M. HIYAMIZU*; H. MAEOKA; A. MATSUO; S. MORIOKA. *Kio Univ.*

4:00 SS16 **457.12** Dopaminergic midbrain responses to stress inhibit mesolimbic reward processing in humans. K. HENNIGAN*; S. M. MCCLURE. *Stanford Univ.*

1:00 SS17 **457.13** Sensory prediction errors affect reinforcement learning. S. D. MCDOUGLE*; R. B. IVRY; J. A. TAYLOR. *Princeton, UC Berkeley.*

2:00 SS18 **457.14** DAT1-COMT gene interaction modulates learning from reward in healthy individuals. J. Y. NATSHEH*; I. T. MUGHRABI; L. Y. KHATEEB; H. M. DARWISH; M. M. HERZALLAH; M. A. GLUCK. *Rutgers, The State Univ. of New Jersey, Al-Quds Univ., NSLIJ Hlth. Syst., Al-Quds Univ.*

3:00 SS19 **457.15** Modulation of declarative memory efficacy affects neither learning rate nor the role of reinforcement learning systems in deterministic, feedback-based decision-making. J. J. TREMEL*; P. A. LAURENT; D. A. WOLK; M. E. WHEELER; J. A. FIEZ. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, The Johns Hopkins Univ., Univ. of Pennsylvania, Georgia Inst. of Technol.*

4:00 SS20 **457.16** Reward-related modulation of conditioned stimulus representations after associative learning. J. D. HOWARD*; T. KAHNT; J. A. GOTTFRIED. *Northwestern Univ., Univ. of Zürich.*

1:00 SS21 **457.17** Neural correlates of contingency learning in contextual fear conditioning. C. BAEUCHL*; P. MEYER; M. HOPPSTAEDTER; H. FLOR. *Central Inst. of Mental Hlth., Bernstein Ctr. for Computat. Neurosci. Heidelberg/ Mannheim.*

2:00 SS22 **457.18** The human substantia nigra dissociates between anticipation of social reward and punishment: evidence from human intracranial recordings. N. BUNZECK*; E. M. BAUCH; H. HINRICHS; F. C. SCHMITT; J. VOGES; H. HEINZE; T. ZAEHLE. *Univ. Med. Ctr., Univ. of Lübeck, Univ. of Magdeburg, Leibniz Inst. for Neurobio.*

3:00 SS23 **457.19** How expectations shape aversive learning. L. Y. ATLAS*; C. SANDMAN; E. A. PHELPS. *New York Univ., NIH/NCCAM, New York Univ., New York Univ.*

4:00 SS24 **457.20** ▲ The impact of alcohol hangover on reward processing within medial-frontal cortex. A. D. HOWSE*; C. D. HASSALL; O. E. KRIGOLSON. *Dalhousie Univ.*

1:00 SS25 **457.21** Reward uncertainty enhances declarative memory encoding at long but not short latencies after cue presentation. J. K. STANEK*; N. J. CLEMENT; R. A. ADCOCK. *Duke Univ., Duke Univ., Duke Univ.*

2:00 SS26 **457.22** Hormonal and cognitive assessment of spatial ability and performance in engineering examination activities. I. VILLANUEVA*; W. GOODRIDGE; N. J. A. WAN; M. M. VALLADARES; B. S. ROBINSON; K. JORDAN. *Utah State Univ., Utah State Univ.*

POSTER

458. Human Decision-Making: Social and Emotional Factors

Theme F: Cognition and Behavior

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

1:00 SS27 **458.01** Does awareness affect embodiment of physical warmth in promoting interpersonal warmth? J. A. PINEDA*; H. KOPPANG. *UCSD, Norwegian Business Sch.*

2:00 SS28 **458.02** A multi-modal examination of the biophysical signals of interpersonal trust in an interative, computer-based gaming environment. A. J. HAUFLER*; A. FIRPI; M. GOFORTH; A. GREENBERG; M. HAPPEL; A. LEE; J. MILLER; M. OSORNO; D. RAGER; D. ROLLEND; J. SPITALETTA; R. VOGELSTEIN. *The Johns Hopkins Univ. Applied Physics Labor.*

3:00 SS29 **458.03** The impact of transcranial direct current stimulation on moral decision-making. S. THOMA*; R. HOUSER; E. O'CONNER. *Univ. of Alabama.*

4:00 SS30 **458.04** Moral judgment modulation by disgust priming through altered fronto-temporal functional connectivity. O. MULLETTE-GILLMAN; Y. A. KURNIANINGISH; H. ONG; F. QUEVENCO; K. KWOK; J. Z. LIM*. *Natl. Univ. of Singapore, Natl. Univ. of Singapore.*

1:00 SS31 **458.05** A fear of sticking out: Role of BNST in conforming to the majority. H. JUNG*; H. KIM. *Korea Univ., Lab. of Social and Decision Neuroscience, Korea Univ.*

2:00 SS32 **458.06** Parsing the neural components underlying third-party punishment decision-making. M. GINTHER*; O. D. JONES; R. MAROIS. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

3:00 SS33 **458.07** Design of a virtual reality hyperscanning environment. J. SNIDER*; J. TREES; M. FALAHPOUR; N. GUO; K. LU; D. C. JOHNSON; H. POIZNER; T. LIU. *UCSD, UCSD, Naval Hlth. Res. Ctr., Dept. of Radiology, UCSD.*

4:00 SS34 **458.08** The fairness model based on EEG hyperscanning for behaviors in competitive games. S. LEE*; J. HAN; H. KIM; S. KIM; Y. CHO. *Korea Univ., Korea Univ., Ulsan Natl. Inst. of Sci. and Technol.*

1:00 SS35 **458.09** How is reward of others added to make one's own decisions in neural mechanisms? H. FUKUDA*; S. SUZUKI; N. MA; N. HARASAWA; K. UENO; J. L. GARDNER; N. ICHINOHE; M. HARUNO; K. CHENG; H. NAKAHARA. *RIKEN, BSI, Univ. of Tokyo, Caltech, Hokkaido Univ., RIKEN, BSI, RIKEN, BSI, Natl. Ctr. of Neurol. and Psychiatry, Natl. Inst. of Information and Communications Technol., RIKEN, BSI.*

2:00 SS36 **458.10** Shifting the balance: Interfering with motor inhibition and reactive aggression by inducing fronto-cortical asymmetry using transcranial direct current stimulation (tDCS). F. DAMBACHER*; T. SCHUHMANN; J. LOBBESTAEL; A. ARNTZ; S. BRUGMANN; A. T. SACK. *Maastricht Univ., Maastricht Univ.*

3:00 SS37 **458.11** A social-interactive approach to strategic reasoning in behavioral variant Frontotemporal Dementia. N. SPOTORNO*; C. MCMILLAN; K. RASKOVSKY; R. CLARK; M. GROSSMAN. *FTD Center, HUP, Univ. of Pennsylvania.*

4:00 SS38 **458.12** Social congruence influences the evaluation of decision outcomes via the ventromedial prefrontal cortex, insula and anterior cingulate. A. VARJACIC; T. JOHNSTONE; J. D. SADDY*; A. CHRISTAKOU. *Univ. of Reading, Univ. of Reading.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 SS39 **458.13** Young adult smokers' reactions to graphic warning labels and tobacco advertising. N. M. GALLAGHER*; R. S. NIAURA; K. P. TERCYAK; D. E. VALLONE; D. MAYS; A. GREEN. *Georgetown Univ., American Legacy Fndn., Georgetown Univ. Med. Center, Lombardi Comprehensive Cancer Ctr., Georgetown Univ.*

2:00 SS40 **458.14** How lying becomes a habit. N. GARRETT*; S. C. LAZZARO; D. ARIELY; T. SHAROT. *Affective Brain Lab., Duke Univ.*

POSTER

459. Human Decision-Making: Value

Theme F: Cognition and Behavior

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

1:00 SS41 **459.01** Neural representation of the preferences for environmental public goods using contingent valuation. M. KHAW*; D. A. GRAB; M. A. LIVERMORE; C. A. VOSSLER; P. W. GLIMCHER. *New York Univ., New York Univ., Univ. of Virginia, Univ. of Tennessee - Knoxville, New York Univ.*

2:00 SS42 **459.02** The value representation of collections of goods for losses is not gain-loss context dependent. H. CHUNG*; A. TYMULA; P. GLIMCHER. *New York Univ., Univ. of Sydney, New York Univ.*

3:00 SS43 **459.03** Neuroeconomics and revealed-preference theory as synergistic cornerstones in economics: Linking neural and choice data may enable a novel self-regulatory policy for preventing asset-price bubbles. J. L. HARACZ*; D. J. ACLAND. *Indiana Univ., UC Berkeley.*

4:00 SS44 **459.04** Changes in functional connectivity after ventromedial prefrontal cortex damage relate to emotion-based decision-making behavior. M. J. SUTTERER*; M. W. VOSS; J. BRUSS; T. SLADE; N. L. DENBURG; A. BECHARA; D. TRANEL. *Univ. of Iowa, Univ. of Iowa, USC.*

1:00 SS45 **459.05** Gain maximization leads to optimal exploration. B. SI*. *Shenyang Inst. of Automation.*

2:00 SS46 **459.06** Microsaccades: An involuntary tell of evolving economic decisions. M. C. DORRIS*; G. YU; B. XU; Y. ZHAO; B. ZHANG; M. YANG; J. Y. Y. KAN; D. M. MILSTEIN; D. THEVARAJAH. *Inst. of Neuroscience, Shanghai Inst. For Biol. Sciences, CAS, Queen's Univ.*

3:00 SS47 **459.07** Are value-based action choices made by a central executive or through a distributed consensus? A. NAKAHASHI; P. E. CISEK*. *Univ. of Montreal.*

4:00 SS48 **459.08** Dynamic adaptation of subjective values within a choice set. P. W. GLIMCHER*; M. KHAW. *New York Univ.*

1:00 SS49 **459.09** VMPFC tracks subjective value according to choice context during decisions about abstract reinforcers. C. FINNERTY*; S. J. HANSON; C. HANSON. *Rutgers Univ.*

2:00 SS50 **459.10** Effects of sleep deprivation on brain function at rest and during a gambling task. N. MA*; Z. FANG; S. ZHU; S. HU; J. DETRE; D. DINGES; H. RAO. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

3:00 SS51 **459.11** Eating alters insula functional connectivity to prefrontal and subcortical regions underlying behavioral and appetitive responses to foods. J. N. POWELL*; C. R. SAVAGE; F. J. BRESLIN; R. J. LEPPING; L. E. MARTIN; T. M. PATRICIAN; J. A. AVERY; W. K. SIMMONS. *Univ. of Kansas Med. Ctr., Laureate Inst. for Brain Res.*

4:00 SS52 **459.12** The neural correlates of decision-making under uncertainty in monetary gains and losses. L. RUDERMAN*; M. A. GRUBB; A. TYMULA; D. B. EHRLICH; P. W. GLIMCHER; I. LEVY. *Yale Univ., New York Univ., The Univ. of Sydney.*

1:00 SS53 **459.13** A TMS study of dorsomedial frontal cortex role in transforming discounted value to actions in intertemporal choice. C. A. RODRIGUEZ*; B. M. TURNER; S. M. MCCLURE. *Stanford Univ.*

2:00 SS54 **459.14** Market experience attenuates the endowment effect through modulation of anterior insula. L. TONG*; K. ASAI; K. J. YE; S. ERTAC; J. A. LIST; H. C. NUSBAUM; A. HORTACSU. *The Univ. of Chicago, Koc Univ., The Univ. of Chicago.*

3:00 SS55 **459.15** Decoding of like/dislike intentions using single-trial electroencephalograms. J. CHOI*; K. CHA; K. KIM. *Yonsei Univ.*

POSTER

460. Human Social Cognition I

Theme F: Cognition and Behavior

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

1:00 SS56 **460.01** Pivotal response treatment alters brain function in children with autism. G. ROSENBLAU*; H. FRIEDMAN; B. VANDER WYK; K. PELPHREY; P. VENTOLA. *Yale Univ.*

2:00 SS57 **460.02** Event-related potential (ERP) for gaze perception and its relation to social anxiety tendencies. Y. TSUJI*; S. SHIMADA. *Meiji Univ.*

3:00 SS58 **460.03** Neural basis of social coordination deficits in patients with behavioral variant frontotemporal dementia (bvFTD). M. HEALEY*; S. GOLOB; N. SPOTORNO; R. CLARK; C. MCMILLAN; M. GROSSMAN. *Univ. of Pennsylvania.*

4:00 SS59 **460.04** Sharing self-related information on social media is associated with intrinsic functional connectivity of cortical midline brain regions. D. MESHI*; L. MAMEROW; E. KIRILINA; C. MORAWETZ; D. MARGULIES; H. R. HEEKEREN. *Freie Univ. Berlin, Freie Univ. Berlin, Max Planck Inst. for Human Cognitive and Brain Sci.*

1:00 SS60 **460.05** The neuroscience of inspirational leadership: Why leaders should care about shared group membership. P. MOLENBERGHS*; G. PROCHILO; N. K. STEFFENS; H. ZACHER; S. A. HASLAM. *Univ. of Queensland, Univ. of Groningen.*

2:00 SS61 **460.06** How social bias (prejudice) affects memory for faces: An electrical neuroimaging study. A. M. PROVERBIO*; F. LA MASTRA; R. ADORNI; A. ZANI. *Univ. Milano-Bicocca, Univ. of Milano-Bicocca, IBFM-CNR.*

3:00 SS62 **460.07** Personality and activation during self-face recognition: Three aspects. M. SUGIURA*; Y. KOTOZAKI; A. SEKIGUCHI; C. M. MIYAUCHI; S. HANAWA; S. NAKAGAWA; T. ARAKI; R. KAWASHIMA. *IDAC, Tohoku Univ., IRIDeS, Tohoku Univ., ToMMo, Tohoku Univ., The Univ. of Tokyo.*

4:00 SS63 **460.08** Neural correlates of intention and relationship attribution of animated motion: An fMRI study. K. YAOI*; T. MINAMOTO; M. OSAKA; N. OSAKA. *Kyoto Univ., Osaka Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 SS64 **460.09** Perception through action: Role of the left sensorimotor cortex in facial categorization. A. PERRY*; J. DEVRIES; H. KIRSCH; E. CHANG; N. CRONE; R. T. KNIGHT; A. Y. SHESTYUK. *Univ. of California, Berkeley, Univ. of California, Berkeley, Univ. of California, San Francisco, Univ. of California, San Francisco, The Johns Hopkins Univ. Sch. of Med.*

2:00 SS65 **460.10** How does the brain represent different ways of understanding the same story? Y. YESHURUN*; S. SWANSON; J. CHEN; E. SIMONY; C. HONEY; C. LAZARIDI; U. HASSON. *Princeton Univ., Princeton Univ., Univ. of Toronto, Princeton Univ., Princeton Univ.*

3:00 SS66 **460.11** Coherent groupwise responses of brain rhythms in EEG during watching a movie. D. KANG*; J. KIM; Y. SHIN; D. JANG; S. KIM. *UNIST, Korea Univ., Hanyang Univ.*

4:00 SS67 **460.12** Subtype- and phenotype-specific altered functional connectivity of social anxiety. S. KAJIMURA*; T. KOCHIYAMA; R. NAKAI; N. ABE; M. NOMURA. *Grad. Sch. of Education, Kyoto Univ., ATR Brain Information Communication Res. Lab. Group, Kyoto Univ.*

1:00 SS68 **460.13** Amygdala activity in normal subjects induced by the inequity predicts their depressive tendency. T. TANAKA*; Y. TERADA; T. YAMAMOTO; M. HARUNO. *Osaka Univ., CiNet, NHK, PRESTO, JST.*

2:00 TT1 **460.14** Language in social interaction modulates mentalizing networks. K. RICE*; K. VELNOSKEY; E. REDCAY. *Univ. of Maryland.*

3:00 TT2 **460.15** ● Brain regions with baseline group differences in BOLD signal & correlations with scopolamine antidepressant response. J. S. ELLIS*; A. C. NUGENT; C. A. ZARATE, Jr.; M. L. FUREY. *NIH.*

4:00 TT3 **460.16** Anterior medial prefrontal cortex implements social priming of mimicry. A. F. HAMILTON*; Y. WANG. *UCL, NYU.*

1:00 TT4 **460.17** Inferior parietal cortex mediates social influence on motor output. M. YOSHIE*; Y. NAGAI; H. D. CRITCHLEY; N. A. HARRISON. *AIST, Brighton and Sussex Med. Sch., Univ. of Sussex.*

2:00 TT5 **460.18** Mechanisms of autonomic regulation during social cognition task. G. VARAS*; E. BRUNETTI; P. E. MALDONADO. *Univ. De Chile.*

3:00 TT6 **460.19** Neural mechanisms underlying human consensus decision-making. S. SUZUKI*; R. ADACHI; S. DUNNE; P. BOSSAERTS; J. P. O'DOHERTY. *Caltech, Hokkaido Univ., Japan Society for the Promoting of Sci., Caltech, Caltech, The Univ. of Melbourne.*

4:00 TT7 **460.20** Individual differences in affective and cognitive empathy are associated with differences in brain structure. R. ERES*; J. DECETY; W. R. LOUIS; P. MOLENBERGHS. *The Univ. of Queensland, The Univ. of Chicago.*

1:00 TT8 **460.21** Ventromedial prefrontal cortex lesions reduce perceived radicalism of political beliefs. I. CRISTOFORI*; V. VIOLA; A. CHAU; W. ZHONG; F. KRUEGER; G. ZAMBONI; J. GRAFMAN. *Northwestern Univ. - Rehabil. Inst., Univ. of Rome, George Madison Univ., Univ. of Oxford.*

2:00 TT9 **460.22** White matter integrity in the uncinate fasciculus correlates with face-based theory of mind abilities in 4 but not 6 year olds. L. C. ANDERSON*; K. RICE; E. REDCAY. *Univ. of Maryland.*

3:00 TT10 **460.23** Neural mechanisms underlying changes in preference for visual motor stimuli after exposure with imitation and observation. Y. OGATA*; T. HANAKAWA. *Natl. Ctr. of Neurol. and Psychiatry.*

4:00 TT11 **460.24** Dual logic and cerebral coordinate for reciprocal social interaction. R. LEE*. *Princeton Univ.*

1:00 TT12 **460.25** Distinct neural networks support the mere ownership effect under different motivational contexts. K. KIM; M. K. JOHNSON*. *Yale Univ., Yale Univ.*

2:00 TT13 **460.26** Dissociating the neural substrates of self-awareness and perceptual-awareness. P. TACIKOWSKI*; C. C. BERGER; H. H. EHRSSON. *Karolinska Inst.*

3:00 TT14 **460.27** Choose the right clothes: An fMRI study of the integration of social and participant's situation. K. OBA*; M. SUGIURA; S. HANAWA; M. SUZUKI; H. JEONG; Y. SASAKI; Y. KOTOZAKI; T. NOZAWA; S. NAKAGAWA; T. KIKUCHI; R. KAWASHIMA. *Tohoku Univ.*

4:00 TT15 **460.28** ● Neural origins of the fear of negative evaluation by others: An fMRI study on incontinence. D. JUNG; K. KIM; J. LEE; M. KIM; S. LEE; W. SOHN; H. KIM*. *Korea Univ., Korea Univ., Kimberly-Clark Corp.*

1:00 TT16 **460.29** Modulation of rolandic beta-band oscillations during joint action. M. MÉNORET; G. ZHOU; M. BOURGUIGNON; R. K. HARI*. *Aalto Univ., L2C2, UMR5304, CNRS/UCBL.*

2:00 TT17 **460.30** Your brain on social robots: anthropomorphism and the 'uncanny valley' effect investigated with functional MRI. Y. WANG*; S. QUADFLIEG. *New York Univ., New York Univ. Abu Dhabi.*

POSTER

461. Fear and Aversive Memories: Mechanisms

Theme F: Cognition and Behavior

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

1:00 TT18 **461.01** Small conductance Ca^{2+}-activated K+ channel blockade in the lateral amygdala alters fear memory. S. A. SANGUINETTI*; R. W. STACKMAN, Jr. *Florida Atlantic Univ., Florida Atlantic Univ.*

2:00 TT19 **461.02** ▲ Fear conditioning leads to an increase in the number of PACAP neurons expressing cfos within the basolateral amygdala. Y. HUANG*; A. K. RAJBHANDARI; M. S. FANELOW; J. A. WASCHEK. *UCLA.*

3:00 TT20 **461.03** Dissociating the relative contribution of NMDA receptors in the basal and lateral amygdala in supporting auditory and contextual fear learning. S. R. STERLACE*; M. M. FLESHER; N. NOCERA; M. S. FANSELOW. *UCLA.*

4:00 TT21 **461.04** Stress-enhanced fear learning induces changes in AMPAR mediated excitatory currents, hyperpolarization-activated cation current (Ih), and K+ inward rectifier current (KIR) in principal neurons of the lateral amygdala. E. M. MEYER*; J. PERUSINI; M. S. FANSELOW; I. SPIGELMAN. *UCLA Sch. Dent.*

1:00 TT22 **461.05** Structural, functional and epigenetic responses to cue-specific olfactory fear extinction training. F. G. MORRISON*; B. G. DIAS; K. J. RESSLER. *Yerkes Natl. Primate Res. Center, Emory Univ., Howard Hughes Med. Inst.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 TT23 **461.06** Identifying the translational profile of corticotropin releasing factor neurons in central amygdala during fear conditioning. G. M. GAFFORD*; B. G. DIAS; K. J. RESSLER. *Emory Univ., Emory Univ., The Howard Hughes Med. Inst.*

3:00 TT24 **461.07** Voxel-based morphometry analysis of auditory fear conditioning in mice with concurrent confocal analysis of structural changes at the cellular level. O. P. KEIFER*, JR; R. C. HURT; D. A. GUTMAN; S. D. KEILHOLZ; S. L. GOURLEY; K. J. RESSLER. *Emory Univ. Sch. of Med., Yerkes Natl. Primate Res. Ctr., Emory Univ. Sch. of Med., Emory Univ. Sch. of Med., Georgia Inst. of Technol. and Emory Univ., Emory Univ. Sch. of Med., Howard Hughes Med. Inst.*

4:00 TT25 **461.08** Interaction between the cholecystokinin and endogenous cannabinoid systems in cued fear expression and extinction retention. M. BOWERS*; K. J. RESSLER. *Emory Univ., Howard Hughes Med. Inst.*

1:00 TT26 **461.09** ● Behavioral and molecular dissection of Thy-1 expressing neurons in the basolateral amygdala. K. MCCULLOUGH*; D. C. CHIO; K. J. RESSLER. *Emory Univ., Emory Univ.*

2:00 TT27 **461.10** Dexamethasone suppression enhances fear extinction and modulates FKBP5 in a PTSD-like mouse model. T. SAWAMURA; R. ANDERO GALI*; T. JOVANOVIC; K. RESSLER. *Yerkes Natl. Res. Center, Emory Univ., Emory Univ., Emory Univ.*

3:00 TT28 **461.11** A role for HDAC4 in amygdala-dependent fear memory in mice and clinical PTSD in women? S. A. MADDOX*; B. G. DIAS; K. J. RESSLER; A. K. SMITH. *Yerkes Res. Ctr. - Emory Univ., Howard Hughes Med. Inst., Emory Univ.*

4:00 TT29 **461.12** ▲ The role of the angiotensin receptor type 1 on corticotropin-releasing factor expressing neurons in auditory fear conditioning. R. C. HURT*; O. P. KEIFER, Jr.; K. J. RESSLER; P. J. MARVAR. *Emory Univ. Sch. of Med., Yerkes Natl. Primate Res. Ctr., Emory Univ. Sch. of Med., Howard Hughes Med. Inst., The George Washington Univ. Sch. of Med. and Hlth. Sci.*

1:00 TT30 **461.13** Individual differences in behavioral stress responses as a model for PTSD: Exploring cholinergic mechanisms that contribute to fear conditioning responses. A. C. SHARKO*; K. F. KAIGLER; J. PARRILLA-CARRERO; J. R. FADEL; M. A. WILSON. *Univ. of South Carolina-School of Med.*

2:00 TT31 **461.14** Predicting the highs and lows of conditioned fear: Mechanisms of estrogen-mediated fear extinction memory consolidation. L. Y. MAENG*; K. K. COVER; A. J. LANDAU; M. J. WHALEN; M. R. MILAD; K. LEBRON-MILAD. *Massachusetts Gen. Hospital/Harvard Med. Sch.*

3:00 TT32 **461.15** The impact of GIRK2-containing channels on anxiety- and fear-related behavior in mice. N. C. VICTORIA*; E. MARRON FERNANDEZ DE VELASCO; Z. XIA; A. SHNAYDRUK; L. KOTECKI; M. BENNEYWORTH; S. METZGER; M. THOMAS; K. WICKMAN. *Univ. of Minnesota, Univ. of Minnesota.*

4:00 TT33 **461.16** Long-term plasticity and fear learning in adult heterozygous BDNF knockout mice. S. MEIS; V. LESSMANN*; T. ENDRES. *Otto-von-Guericke Univ., Otto-von-Guericke Univ.*

1:00 TT34 **461.17** Gene expression profiling in a mouse model simulating aspects of PTSD. J. L. MEYERHOFF*. *Georgetown Univ., US Army Ctr. for Envrn. Hlth. Res.*

2:00 TT35 **461.18** Acquisition of conditioned fear is followed by a transient region-specific increase in unedited kainate receptor RNA. N. BRANDE-EILAT; Y. GOLUMBIC; I. GAISLER-SALOMON*. *Univ. of Haifa.*

3:00 TT36 **461.19** Variability in empathic fear among different inbred mouse strains. S. KEUM*; A. KIM; K. KIM; H. SHIN. *IBS, IBS.*

POSTER

462. Prefrontal Cortex II

Theme F: Cognition and Behavior

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

1:00 TT37 **462.01** Prospective, concurrent, and retrospective evaluation of outcomes in rodent orbitofrontal cortex. Y. JO*; S. J. Y. MIZUMORI. *Univ. of Washington.*

2:00 TT38 **462.02** Prefrontal cortical Norepinephrine delays extinction of amphetamine-induced conditioned place preference. E. LATAGLIATA; P. SACCOCCIO; C. MILIA; S. PUGLISI-ALLEGRA*. *Fondazione Santa Lucia, IRCCS, Dept. Psychology, Sapienza Univ. of Rome.*

3:00 TT39 **462.03** Prefrontal cortical deletion of DNA methyltransferases Dnmt1 and Dnmt3a induces anhedonia. J. V. JOY-GABA*; D. WARTHEN; B. NEWMYER; P. LAMBETH; J. A. JOY-GABA; R. GAYKEMA; M. SCOTT. *Univ. of Virginia, Virginia Commonwealth Univ.*

4:00 TT40 **462.04** Population decoding in the frontal eye fields and prefrontal cortex during a visual working memory task. A. PARTHASARATHY*; R. HERIKSTAD; J. BONG; C. LIBEDINSKY; S. YEN. *Natl. Univ. of Singapore, NUS Grad. Sch. for Sci. and Engin., Singapore Inst. of Neurotechnology, Singapore Inst. of Clin. Sci.*

1:00 TT41 **462.05** Bayesian analysis provides additional insight into the set shifting deficits in orbital frontal cortex lesioned rats. A. WHYTE*; J. WANG; E. A. CHASE; D. TAIT; V. J. BROWN; E. BOWMAN. *Univ. of St. Andrews.*

2:00 TT42 **462.06** Testing computational models of anterior cingulate cortex with monkey single units. A. JAHN; C. STRAIT; J. W. BROWN*; B. HAYDEN. *Indiana Univ., Univ. of Rochester, Indiana Univ.*

3:00 TT43 **462.07** Bidirectional modulation of behavioral flexibility by tonic and phasic stimulation of ventral tegmental inputs to the prefrontal cortex. I. T. ELLWOOD*; T. PATEL; A. T. LEE; A. T. LIPTAK; K. J. BENDER; V. S. SOHAL. *Univ. of California San Francisco.*

4:00 TT44 **462.08** Beta spike-field coherence in a flexible categorization task: a single prefrontal neuron ensemble for multiple categorization schemes. D. A. STANLEY*; K. G. BUCHANAN; J. E. ROY; E. K. MILLER; N. J. KOPELL. *Boston Univ., Boston Univ., Boston Univ., MIT.*

1:00 TT45 **462.09** Rewarding effects of optogenetic stimulation of the medial prefrontal cortex and adjacent regions in mice. C. YANG; S. IKEMOTO*. *NIDA, NIH.*

2:00 TT46 **462.10** The different predicting roles of the anterior cingutate cortex and the orbital frontal cortex in risk-taking tasks in rats. P. YU*; R. XU; H. LI; A. JI. *Capital Normal Univ.*

3:00 TT47 **462.11** Kappa opioid-receptors in the medial prefrontal cortex: Endogenous regulators of cognitive control. S. SIROHI*; B. M. WALKER. *Washington State Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 TT48 **462.12** Orbitofrontal cortex mediates cue-evoked inhibition of basolateral amygdala neurons during appetitive Pavlovian conditioning. K. R. VITALE*; P. H. JANAK. *UCSF.*

1:00 TT49 **462.13** Rule training enhances structural plasticity of long range projecting orbitofrontal cortex axons. C. M. JOHNSON; H. PECKLER; L. E. WILBRECHT*. *Univ. of California, San Francisco, UC Berkeley.*

2:00 TT50 **462.14** Adolescent female mice exhibiting activity-based anorexia express elevated inhibitory input onto prefrontal cortical layer V pyramidal cells with axon terminal restructuring that is distinct for ventral versus dorsal subregions. Y. CHEN*; G. S. WABLE; T. G. CHOWDHURY; C. J. AOKI. *Ctr. for Neural Science, New York Univ.*

3:00 TT51 **462.15** The effect of prefrontal and/or hippocampal lesions on performance of cognitive shifts in a T-maze. H. MALA*; L. G. ANDERSEN; R. F. CHRISTENSEN; A. FELBINGER; J. HAGSTRØM; D. MEDER; H. PEARCE; J. MOGENSEN. *Univ. of Copenhagen.*

4:00 TT52 **462.16** Information transfer between frontal eye fields and dorsolateral prefrontal cortex in macaques during a visual working memory task. R. HERIKSTAD*; J. H. BONG; C. LIBEDINSKY; A. PARTHASARATHY; S. YEN. *Natl. Univ. of Singapore, Singapore Inst. of Neurotechnology, A*STAR, NUS Grad. Sch. for Sci. and Engin.*

1:00 TT53 **462.17** Prefrontal neural dynamics during decision-making process. H. TSENG*; X. HAN. *Boston Univ.*

2:00 TT54 **462.18** Medial orbitofrontal cortex mediates use of outcome representations when outcomes are unobservable. L. A. BRADFIELD*; M. VAN HOLSTEIN; B. W. BALLEINE. *Brain and Mind Res. Inst., Radboud University, Donders Inst.*

3:00 TT55 **462.19** Connectivity between medial prefrontal cortex and nucleus accumbens is necessary for restraint of impulsive reward-directed behavior. K. MANSON*; J. D. ROITMAN. *Univ. of Illinois At Chicago.*

4:00 TT56 **462.20** Adaptive contribution of the primate medial prefrontal cortex to selection, retention and usage of tactics to decide action. Y. MATSUZAKA*; J. TANJI; H. MUSHIAKE. *Tohoku Univ.*

1:00 TT57 **462.21** Anterior cingulate cortex is required for go/no-go avoidance performance in mice. J. JHANG*; J. OH; J. HAN. *KAIST.*

2:00 TT58 **462.22** *In vivo* PET imaging of the behaviorally active designer receptor in macaque monkeys. Y. NAGAI; E. KIKUCHI; W. LERCHNER; K. INOUE; A. OH-NISHI; H. KANEKO; Y. KATO; Y. HORI; B. JI; K. KUMATA; M. ZHANG; I. AOKI; T. SUHARA; M. TAKADA; M. HIGUCHI; B. J. RICHMOND; T. MINAMIMOTO*. *Natl. Inst. Radiological Sci., NIH, Kyoto Univ., JST.*

3:00 TT59 **462.23** Reversible DREADD inactivation of orbitofrontal cortex neurons in rhesus monkeys with contralateral rhinal cortex removal disrupts cued reward discrimination. I. Behavioral analysis. M. A. ELDRIDGE*; W. LERCHNER; T. MINAMIMOTO; R. C. SAUNDERS; B. J. RICHMOND. *NIMH, Mol. Imaging Ctr.*

4:00 TT60 **462.24** Reversible DREADD inactivation of less than 10% of Orbitofrontal cortex neurons in interconnection with rhinal cortex is sufficient to disrupt cue discrimination in monkeys. W. LERCHNER*; M. A. G. ELDRIDGE; R. C. SAUNDERS; H. KANEKO; M. HIGUCHI; T. MINAMIMOTA; B. J. RICHMOND. *NIH, Natl. Inst. of Radiological Sci.*

POSTER

463. Animal Models: Spatial Learning and Place Cells

Theme F: Cognition and Behavior

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

1:00 TT61 **463.01** Transient inactivation of hippocampal-prefrontal circuitry impairs flexible spatial learning in rats. K. M. SEIP-CAMMACK*; K. G. GUISE; M. SHAPIRO. *Icahn Sch. of Med. At Mount Sinai.*

2:00 TT62 **463.02** Parallel processing in the hippocampal CA1 region. A. PEVZNER*; B. J. WILTGEN. *Univ. California-Davis.*

3:00 TT63 **463.03** Cortical representations are reinstated by the hippocampus during memory retrieval. K. Z. TANAKA*; A. PEVZNER; A. HAMIDI; B. J. WILTGEN. *Ctr. for Neuroscience, UC Davis, Ctr. for Neuroscience, UC Davis.*

4:00 TT64 **463.04** Redundant spatial representation along the longitudinal hippocampal axis: Overcoming an interference-generalization tradeoff. A. T. KEINATH*; M. E. WANG; J. T. DUDMAN; I. A. MUZZIO. *Univ. of Pennsylvania, Univ. of Pennsylvania, HHMI.*

1:00 TT65 **463.05** Segregation of spatial information along the proximodistal axis of CA3: Additional hints of segregated spatial and non-spatial subnetworks within the hippocampus. V. FLASBECK; N. NAKAMURA; M. SAUVAGE*. *Mercator Res. Group.*

2:00 TT66 **463.06** The endocannabinoid system differentially modulates spatial memory retrieval depending on stress level at encoding. M. MORENA*; A. PELOSO; M. J. GRAY; V. TREZZA; M. N. HILL; P. CAMPOLONGO. *Univ. of Calgary, Univ. of Calgary, Univ. of Calgary, "Sapienza" Univ. of Rome, Univ. Roma Tre, "Sapienza" Univ. of Rome.*

3:00 TT67 **463.07** Membrane potential dynamics of dorsal hippocampal CA1 neurons during exploration of familiar and novel virtual environments. J. D. COHEN*; A. K. LEE. *HHMI / Janelia Farm.*

4:00 TT68 **463.08** Sparing of object and spatial recognition memory in adult monkeys with neonatal perirhinal lesions. A. R. WEISS*; J. BACHEVALER. *Emory University/YNPRC.*

1:00 TT69 **463.09** Integration of multiple spatial memories in hippocampus. D. J. CAI*; J. L. SHOBE; T. SHUMAN; K. BAUMGAERTEL; J. BIANE; A. C. FRANK; M. MAYFORD; A. J. SILVA. *UCLA, UCLA, The Scripps Res. Inst., UCSD, UCLA.*

2:00 TT70 **463.10** Enhancing graduate and post-doctoral training: insights from the neural systems & behavior course at mbl in woods hole. A. A. FENTON*; R. M. HARRIS; H. A. HOFMANN. *New York Univ., The Univ. of Texas at Austin, The Univ. of Texas at Austin.*

3:00 TT71 **463.11** Differential effects of acute psychotomimetic NMDAR antagonists on hippocampal subfields. H. JOURDI*; H. KAO; K. W. TUNNELL; D. DVORAK; E. LESBURGUÈRES; A. A. FENTON. *New York Univ., New York Univ., SUNY - NYU/Poly.*

4:00 TT72 **463.12** Integrated molecular and synaptic hippocampal mechanisms of place avoidance learning and memory. R. M. HARRIS*; J. M. ALARCON; H. A. HOFMANN; A. A. FENTON1. *The Univ. of Texas At Austin, 3SUNY Downstate Med. Ctr., New York Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 TT73 **463.13** Discoordination of cross-frequency coupling in animal models of cognitive dysfunction. D. DVORAK*; B. RADWAN; H. KAO; A. A. FENTON. *SUNY Downstate Med. Ctr., NYU, SUNY Downstate Med. Ctr.*

2:00 TT74 **463.14** Schemas in the hippocampus: A hierarchical Bayesian approach to one-trial learning and time dependent memory consolidation. A. JOHNSON*; M. HASSELMO; P. SCRHATER. *Bethel Univ., Boston Univ., Univ. of Minnesota.*

3:00 TT75 **463.15** Septal modulation of hippocampal learning and memory. L. MAGNO*; C. SCHMIDT-HIEBER; C. BARRY; Y. MILNER; P. THEODOTOU; A. N. RUBIN; M. HAUSSER; N. KESSARIS. *Wolfson Inst. for Biomed. Research, UCL, UCL.*

4:00 TT76 **463.16** Comparing dorsal and ventral hippocampus oscillations during learning. J. YOON*; G. N. NEWMAN; R. A. JACKSON; X. LI; S. P. VU; A. DHURI; E. J. MARKUS. *Univ. of Connecticut, Univ. of Connecticut.*

1:00 TT77 **463.17** Temporal sequence learning by rats in a radial arm water maze. S. LEE*; B. TIMMERMAN; V. WICKENHEISSER; S. PATEL; E. J. MARKUS. *Univ. of Connecticut, Univ. of Connecticut.*

2:00 TT78 **463.18** Medial entorhinal cortex lesions disrupt hippocampus-dependent place memory in rats. J. B. HALES*; S. SATURDAY; S. LEUTGEB; L. R. SQUIRE; R. E. CLARK. *UCSD, UCSD, UCSD, VAMCSD, UCSD, UCSD.*

3:00 TT79 **463.19** Spatial long-term memory and modulation of NMDA receptor subunit expression in medial septal immunolesioned rats. L. KRUASHVILI*; M. MEPHARISHVILI; M. DASHNIANI; M. BURJANADZE; M. DEMURISHVILI. *St.Andrew the First-Called Georgian Univ. the, Ilia state Univeersity, I.Beritashvili centre of Exptl. Biomedcine, St.Andrew the first-called Georgian Univ. of Patriarchy of Georgia.*

4:00 TT80 **463.20** ● Time-lapse imaging in freely behaving mice of CA1 hippocampal ensemble representations of associations between reward and spatial location. M. CARR LARKIN*; E. O. HAMEL; L. J. KITCH; J. LI; M. J. SCHNITZER. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., HHMI.*

1:00 TT81 **463.21** Neural response in multiple hippocampal sub-regions to the manipulation of spatial cues in rats. H. XU*; M. HSIAO; D. SONG; T. W. BERGER. *USC.*

2:00 TT82 **463.22** ▲ Schemas in the hippocampus: A hierarchical Bayesian approach to hippocampal place cell mapping. S. VENDITTO*; L. HORSTMAN; P. SCHRATER; A. JOHNSON. *Bethel Univ., Univ. of Minnesota.*

3:00 TT83 **463.23** ● Large-scale, ensemble representations of space by CA1 hippocampal place cells visualized during spatial learning by fluorescence calcium-imaging in freely moving mice. L. KITCH*; Y. ZIV; M. C. LARKIN; E. O. HAMEL; M. J. SCHNITZER. *Stanford Univ., Weizman Inst.*

4:00 TT84 **463.24** Differential regulation of cholinergic and dopaminergic systems on hippocampal place field properties. M. TSANOV*; O. MAMAD. *Trinity Col. Inst. of Neuroscience, TCD, Trinity Col. Inst. of Neurosci.*

1:00 TT85 **463.25** Place cell response variance in an attractor network model of hippocampal ca3. H. N. YOUSIF*; T. SOLSTAD; T. J. SEJNOWSKI. *Salk Inst. For Biol. Studies, Norwegian Univ. of Sci. and Technol.*

2:00 TT86 **463.26** Influence of visual cue contrast on hippocampal place fields. A. B. SALEEM*; K. D. HARRIS; M. CARANDINI. *Univ. Col. London.*

3:00 TT87 **463.27** Development of distinct encoding schemes revealed by prior experience, preplay, and NMDA receptor knock-out. G. DRAGOI*; S. TONEGAWA. *MIT.*

POSTER

464. Learning and Memory: Signaling and Gene Expression

Theme F: Cognition and Behavior

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

1:00 TT88 **464.01** Lack of correlation of immediate-early gene expression patterns in the rat hippocampus during sleep and during the subsequent exploration of a completely novel environment. A. M. DEMCHUK*; M. J. ECKERT; B. L. MCNAUGHTON. *Univ. of Lethbridge.*

2:00 TT89 **464.02** Tip60 HAT action in cognitive enhancement. S. XU*; F. ELEFANT. *Drexel Univ.*

3:00 TT90 **464.03** The role of Cav1.2 in dentate gyrus dependent learning. S. JIMINEZ TEMME*; G. G. MURPHY. *Univ. of Michigan.*

4:00 TT91 **464.04** Targeted pharmacogenetic interrogation of a fear memory network. G. VETERE*; A. WHEELER; L. RESTIVO; S. JOSSELYN; P. FRANKLAND. *Hosp. For Sick Children, Inst. of Med. Sci., Dept. of Physiol., Univ. of Toronto.*

1:00 TT92 **464.05** Memory retrieval of inhibitory avoidance induces gene expression of arc and zif268. S. GONZALEZ*; A. MEDINA; E. ALVARADO-ORTIZ; A. ANTARAMIAN; G. QUIRARTE; R. PRADO-ALCALA. *Inst. de Neurobiologia, UNAM, Inst. de Neurobiologia, UNAM.*

2:00 UU1 **464.06** Exchange protein activated by cAMP (Epac) facilitates short-term and long-term memory in rat pup odor preference learning. J. H. MCLEAN*; M. T. GRIMES; M. F. POWELL; S. MOHAMMED; C. W. HARLEY. *Mem. Univ. Newfoundland, Mem. Univ. Newfoundland, Mem. Univ. Newfoundland, Mem. Univ. Newfoundland.*

3:00 UU2 **464.07** GSK3β inhibition in the hippocampus and striatum is task-specific. C. J. SCAVUZZO*; P. E. GOLD; D. L. KOROL. *Univ. of Illinois, Urbana-Champaign, Syracuse Univ.*

4:00 UU3 **464.08** A proteomic approach to elucidate the molecular signaling pathways underlying visual recognition memory in monkeys. B. A. CORGIAT*; C. MUELLER; J. N. TURCHI; J. L. OLDS; R. C. SAUNDERS; L. A. LIOTTA; M. MISHKIN. *George Mason Univ., George Mason Univ., NIMH.*

1:00 UU4 **464.09** Persistent dysregulation of memory and signal transduction by peripheral inflammation. E. J. DONZIS*; N. NEVÁREZ; I. C. SPEIRS; A. A. SCHMELING; L. M. TURNBULL; N. C. TRONSON. *Univ. of Michigan.*

2:00 UU5 **464.10** Mineralocorticoid receptors as genetic resilience factor under chronic stress? S. KANATSOU*; A. P. HARRIS; J. R. SECKL; H. KRUGERS; M. JOËLS. *Brain Ctr. Rudolf Magnus, Univ. Med. Cen, Swammerdam Inst. for Life Sciences, Univ. of Amsterdam, Queen's Med. Res. Institute, Univ. of Edinburgh.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 UU6 **464.11** Forebrain-specific knockdown of Staufen2 in transgenic rats impairs synaptic plasticity and learning and memory processes. S. BERGER; I. FERNÁNDEZ-LAMO2; K. SCHÖNIG; S. CLEMENTI; T. ENKEL; M. A. KIEBLER; S. GROTHE; O. VON BOHLEN UND HALBACH; J. M. DELGADO-GARCÍA; A. GRUART; D. BARTSCH*. *CIMH and Med. Fac. Mannheim, Heidelberg Univ., Pablo de Olavide Univ., Ludwig Maximilians Univ., Ernst-Moritz-Arndt-Universität.*

4:00 UU7 **464.12** ▲ Mitochondrial cannabinoid receptor mediate side-effects of cannabinoids. T. C. DESPREZ*; E. HEBERT-CHATELAIN; E. SORIA-GOMEZ; L. BELLOCCHIO; A. DELAMARRE; A. BUSQUETS-GARCIA; L. ROBIN; G. TERRAL; N. PUENTE; P. GRANDES; F. MASSA; G. BÉNARD; G. MARSICANO. *INSERM U862, INSERM U862, NeuroCentre Magendie, Univ. of Bordeaux, Dept. of Biology, Univ. of Padova Complesso Vallisneri, Dept. of Biochem. and Mol. Biol. I, Complutense Univ., Dept. of Neurociences, Med. and Odontology Falculty, Univ. of Bask Country.*

1:00 UU8 **464.13** Dissecting differential roles for Akt isoforms in signaling, synaptic plasticity, and behavior. J. LEVENGA*; M. ROCHE; H. WONG; C. HOEFFER. *Univ. of Colorado, Boulder, Inst. for Behavioral Genet., New York Univ., Univ. of Colorado, Boulder.*

2:00 UU9 **464.14** Long-term effects of space radiation-induced ablation of neural progenitor cells on hippocampal synaptic plasticity, learning and memory. O. MIRY*; K. R. GOPAUL; X. ZHANG; J. A. MONCASTER; C. E. TAGGE; L. E. GOLDSTEIN; P. K. STANTON. *New York Med. Col., New York Med. Col., Boston Univ. Med. Ctr.*

3:00 UU10 **464.15** Maternal care effects on ATRX expression, genome stability and long-term neurobehavioral development. A. KORGAN*; A. HUNDERT; I. C. G. WEAVER. *Dalhousie Univ., Dalhousie Univ., Dalhousie Univ.*

4:00 UU11 **464.16** Effects of cell type-specific expression of a mutant SHP-2 on learning and memory. H. RYU; T. KIM; M. KANG; B. KAANG; Y. LEE*. *Chung-Ang Univ., Seoul Natl. Univ.*

1:00 UU12 **464.17** The beneficial role of the bone derived hormone osteocalcin (OCN) in cognitive functions. S. KOSMIDIS*; L. KHRIMIAN; F. OURY; G. KARSENTY; E. R. KANDEL. *Columbia Med. Ctr., Columbia Med. Ctr., Columbia, Columbia.*

2:00 UU13 **464.18** Age-related changes in hippocampal Arc expression following minimal behavioral induction. I. V. ODINTSOVA*; B. J. SCHMIDT; E. J. MARKUS; D. F. MARRONE. *Wilfrid Laurier Univ., Univ. of Minnesota, Univ. of Connecticut, McKnight Brain Inst.*

3:00 UU14 **464.19** Object-location training elicits an overlapping but temporally distinct transcriptional profile from contextual fear conditioning. S. G. POPLAWSKI*; H. SCHOCH; M. WIMMER; J. D. HAWK; T. ABEL. *Univ. of Pennsylvania, Yale Univ.*

4:00 UU15 **464.20** Regulation of hippocampal synaptic plasticity and memory by the co-repressor Sin3a through Homer1/mGluR5 signaling. M. BRIDI*; H. SCHOCH; C. FLORIAN; S. G. POPLAWSKI; J. D. HAWK; R. HAVEKES; T. ABEL. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. Toulouse 3, Univ. of Pennsylvania, Yale Univ.*

1:00 UU16 **464.21** Regulation of the transcription factor REST/NRSF and putative target genes during memory consolidation and following glutamate stimulus. D. C. CORBETT*; K. J. MURPHY. *Univ. Col. Dublin.*

2:00 UU17 **464.22** Reverse-transcriptase inhibitor 3'-azido-3'-deoxythymidine impairs hippocampal-dependent memory in mice. M. ROSHCHINA*; O. IVASHKINA; D. ZUBKOV; K. ANOKHIN. *Nbics-Center, NRC kurchatov Inst., M.V. Lomonosov Moscow State Univ., Moscow Inst. of Physics and Technology, Lab. of Brain Stem Cells, Anokhin Inst. of Normal Physiol. RAMS, Inst. of Higher Nervous Activity and Neurophysiol.*

3:00 UU18 **464.23** Effects of stimulation and blockade of 5-HT6 receptor during the formation of memory and amnesia. F. APARICIO NAVA*; A. MENESES; G. LIY-SALMERON. *Ctr. De Investigación Y Estudios Avanzados Del I, Facultad de Ciencias de la Salud, Univ. Anahúac Norte.*

4:00 UU19 **464.24** ● Single-neuron RNA-seq: Genomic dissection of memory circuits and cell census in the brain. L. L. MOROZ*; G. MEREDITH; Y. SUN; K. M. CANDELARIO; D. DHINGRA; L. IANOV; A. RANI; S. HARDEN; A. KUMAR; C. J. FRAZIER; D. A. STEINDLER; T. FOSTER; A. KOHN. *Univ. of Florida, McKnight Brain Inst., ThermoFisher, McKnight Brain Inst., McKnight Brain Inst.*

1:00 UU20 **464.25** The role of SHANK in trace associative learning-induced neocortical synaptic plasticity. S. M. COLLINS*; R. GALVEZ. *Univ. of Illinois.*

2:00 UU21 **464.26** The role of injury-induced neurogenesis in pattern separation and completion in brain remodeling. T. YU*; S. G. KERNIE. *Columbia Univ. Med. Sch.*

POSTER

465. Cortical and Hippocampal Circuits: Learning and Memory

Theme F: Cognition and Behavior

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

1:00 UU22 **465.01** Behavioral discrimination and network pattern separation can occur in the absence of neurogenesis. V. C. PIATTI*; Y. AN; M. APPALARAJU; S. N. GILLET; H. A. CAMERON; S. LEUTGEB; J. K. LEUTGEB. *UC San Diego, NIH, UC San Diego.*

2:00 UU23 **465.02** Hippocampal spatial coding in aged rats is altered by septal inactivation. B. L. BOUBLIL; M. P. BRANDON; M. GALLAGHER; J. K. LEUTGEB; S. LEUTGEB*. *UCSD, The Johns Hopkins Univ., Kavli Inst. for Brain and Mind, UCSD.*

3:00 UU24 **465.03** Impaired dentate gyrus function in early stages of a chronic model of temporal lobe epilepsy. L. A. EWELL*; V. LAM; A. MCGINNESS; R. KUK; T. GOLDRING; V. C. PIATTI; S. LEUTGEB; J. K. LEUTGEB. *UC-San Diego, Kavli Inst. for Brain and Mind.*

4:00 UU25 **465.04** Dentate gyrus granule cells support reward-related ripple activity in the hippocampal CA3 network during spatial working memory. T. SASAKI*; E. HWAUN; V. C. PIATTI; S. LEUTGEB; J. K. LEUTGEB. *UCSD, UCSD, UCSD.*

1:00 UU26 **465.05** Coding contextual changes through remapping in the medial entorhinal cortex. G. W. DIEHL*; S. LEUTGEB; J. K. LEUTGEB. *UCSD, Kavli Institue for Brain and Mind, UCSD.*

2:00 UU27 **465.06** Optogenetic stimulation of parvalbumin-positive neurons provides an external pacemaker of hippocampal theta dynamics. M. P. BRANDON*; M. DONEGAN; J. K. LEUTGEB; S. LEUTGEB. *UC San Diego.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 UU28 **465.07** Imaging place cell dendrites during navigation. M. SHEFFIELD*; D. A. DOMBECK. *Northwestern Univ.*

4:00 UU29 **465.08** Cellular resolution optical imaging of medial entorhinal cortex. J. G. HEYS*; D. A. DOMBECK. *Northwestern Univ.*

1:00 UU30 **465.09** Hippocampal ensemble representations of the learning context are critical for resolving interference. D. A. BULKIN*; L. M. LAW; D. M. SMITH. *Cornell Univ.*

2:00 UU31 **465.10** Neurons in the retrosplenial cortex encode navigational cues and reward locations. L. C. VEDDER*; D. M. SMITH. *Cornell Univ.*

3:00 UU32 **465.11** Representations of cues and space in the retrosplenial cortex during continuous spatial alternation. A. M. MILLER*; W. MAU; S. PARAUDA; K. YU; D. M. SMITH. *Cornell Univ.*

4:00 UU33 **465.12** Synchronous increase of neuronal excitability is required for the generation of specific hippocampal neuronal sequences. Z. ROTH; Y. WANG; S. ROMANI; E. PASTALKOVA*. *Univ. of Nebraska, Janelia Farm Res. Campus, Columbia university.*

1:00 UU34 **465.13** Sensory cues are insufficient to evoke hippocampal place fields in a novel environment. Y. WANG*; A. LEONARDO; E. PASTALKOVA. *Janelia Farm Res. Campus, HHMI.*

2:00 UU35 **465.14** Imaging the aging memory trace with high resolution in the medial temporal lobe. V. LUX*; T. KITSUKAWA; M. SAUVAGE. *Ruhr-Universitaet Bochum, Intl. Grad. Sch. of Neurosci., Osaka Univ., Ruhr-Universitaet Bochum, Mercator Res. Group Functional Architecture of Memory.*

3:00 UU36 **465.15** Neural networks of the mouse entorhinal cortex. M. S. BIENKOWSKI*; M. Y. SONG; I. BOWMAN; M. BAY; L. GOU; B. ZINGG; H. HINTIRYAN; N. N. FOSTER; A. W. TOGA; H. DONG. *USC, USC.*

POSTER

466. Cortical and Hippocampal Circuits: Timing and Temporal Processing I

Theme F: Cognition and Behavior

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

1:00 UU37 **466.01** ratCAVE: A novel virtual reality system for freely moving rodents. N. A. DEL GROSSO*; A. SIROTA. *Ctr. For Integrative Neurosci., Ludwig-Maximilians Univ.*

2:00 UU38 **466.02** Joint analysis of cholinergic tone and network dynamics in cortical and hippocampal neuronal networks *in vivo* using enzyme-based biosensors. R. M. SANTOS*; J. LARANJINHA; R. M. BARBOSA; A. SIROTA. *Ctr. For Neurosci. and Cell Biology, Univ. of Coimbra, Ctr. for Integrative Neuroscience, Univ. of Tuebingen, BCCN and Synergy Cluster, Ludwig-Maximilians Univ. München, Fac. of Pharmacy, Univ. of Coimbra.*

3:00 UU39 **466.03** Anatomical dissection of distinct high-frequency oscillations in the hippocampus. E. RESNIK*; G. SCHWESIG; N. IDE; J. GRABOSKI; A. SIROTA. *Ctr. for Integr. Neuroscience, Univ. of Tuebingen, BCCN and Synergy Cluster, Ludwig-Maximilians Univ. of Munich.*

4:00 UU40 **466.04** Laminar analysis of neocortical gamma oscillators. A. N. IDE*; A. SIROTA. *Ctr. for Integrative Neurosci. (CIN), BCCN and Synergy Cluster, Ludwig-Maximilians Univ. München (LMU).*

1:00 UU41 **466.05** ● Behavioral state dependence of hippocampal place cell expression in exploring rat. J. J. GRABOSKI; A. M. SIROTA*; E. RESNIK. *Ctr. for Integrative Neuroscience, Univ. of Tuebingen, Ctr. For Integrative Neuroscience, Univ. of Tuebingen.*

2:00 UU42 **466.06** Effects of a benzodiazepine and a serotonin 1A receptor agonist on neural activity in the rat medial entorhinal cortex. C. K. MONAGHAN*; G. CHAPMAN, IV; M. E. HASSELMO. *Boston Univ., Boston Univ.*

3:00 UU43 **466.07** Addressing theta rhythmicity in extracellularly recorded neurons in rat and bat. J. R. CLIMER*; R. DITULLO; J. R. HINMAN; G. CHAPMAN, IV; M. P. BRANDON; M. E. HASSELMO; U. T. EDEN. *Boston Univ., Boston Univ., Boston Univ., UC San Diego, Boston Univ.*

4:00 UU44 **466.08** Hypothesis testing of grid cell parameters using a maximum likelihood framework. R. DITULLIO*; J. R. CLIMER; M. E. HASSELMO; U. T. EDEN. *Boston Univ., Boston Univ., Boston Univ.*

1:00 UU45 **466.09** State-dependent physiological properties in the hippocampus-amygdala networks. G. GIRARDEAU*; I. INEMA; A. FERNANDEZ-RUIZ; G. BUZSÁKI. *NYU Med. Ctr. Neurosci. Inst.*

2:00 UU46 **466.10** Methodological insights into hippocampal replay and pre-play. A. D. GROSMARK*; G. GYÖRGY BUZSÁKI. *NYU Neurosci., NYU Univ.*

3:00 UU47 **466.11** Noninvasive single-unit recording from the surface of the brain. D. KHODAGHOLY*; J. GELINAS; W. DOYLE; G. MALLIARAS; G. BUZSAKI. *NYU Langone Med. Ctr., Comprehensive Epilepsy Ctr. of New York Univ., Ecole Nationale Supérieure des Mines.*

4:00 UU48 **466.12** High-density, high-speed electrical closed-loop system to control seizures. Z. ZHAO*; D. KHODAGHOLY; J. GELINAS; G. BUZSAKI. *NYU Langone Med. Ctr.*

1:00 UU49 **466.13** State-dependent changes of hippocampal somatostatin interneuron activity and their effect on local circuit dynamics. Y. SENZAI*; G. BUZSAKI. *New York Univ., Neurosci. Inst.*

2:00 UU50 **466.14** Theta-gamma coupling in entorhinal-hippocampal networks. E. W. SCHOMBURG*; A. FERNANDEZ-RUIZ; K. MIZUSEKI; A. BERENYI; G. BUZSAKI. *NYU Neurosci. Inst., Allen Inst. for Brain Sci., Univ. of Szeged.*

3:00 UU51 **466.15** Temporal precision of spiking in freely-moving animals. E. STARK*; D. ENGLISH; Y. SENZAI; L. ROUX; R. EICHLER; G. BUZSAKI. *NYU Neurosci. Inst.*

4:00 UU52 **466.16** Pyramidal cell-interneuron interactions underlie hippocampal ripple oscillations. L. ROUX*; E. STARK; R. EICHLER; Y. SENZAI; S. ROYER; G. BUZSÁKI. *NYU Med. Center, Neurosci. Inst., Korea Inst. of Sci. and Technol.*

1:00 UU53 **466.17** An ethological profile of the interplay between sharp wave-ripples and theta activity in ca1. J. D. LONG II*; G. BUZSAKI. *New York Univ.*

2:00 UU54 **466.18** ● Changes in neocortical circuit dynamics during sleep. B. O. WATSON*; J. P. GREENE, II; G. BUZSAKI. *New York Univ., Weill Cornell Med. Col.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 UU55 **466.19** Intracellular correlates of sharp-wave ripple network events in CA1 pyramidal neurons. D. F. ENGLISH*; A. PEYRACHE; E. STARK; L. ROUX; D. VALLENTIN; M. A. LONG; G. BUZSAKI. *The Neurosci. Institute, New York University, Sch. of Med.*

4:00 UU56 **466.20** Hippocampal interictal discharges and sleep spindles: Interference with physiological consolidation? J. GELINAS*; D. KHODAGHOLY; G. BUZSAKI. *New York Univ.*

1:00 UU57 **466.21** Self-organized mechanisms of the head direction sense. A. PEYRACHE*; P. PETERSEN; M. LACROIX; G. BUZSAKI. *New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr.*

2:00 UU58 **466.22** Inhibition-based theta resonance in a hippocampal network: A modeling study. H. G. ROTSTEIN*; E. STARK; G. BUZSÁKI. *NJIT, NYU Neurosci. Inst.*

3:00 UU59 **466.23** ● Electrophyisiologic characterization of medial prefrontal cortical response to ketamine. J. P. GREENE*; B. O. WATSON; G. BUZSAKI. *NYU, Weill Cornell Med. Col.*

POSTER

467. Fear and Aversive Memories: Acquisition and Extinction

Theme F: Cognition and Behavior

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

1:00 UU60 **467.01** ● Acute tianeptine treatment selectively modulates neuronal activation in the central nucleus of the amygdala and attenuates fear extinction. B. P. GODSIL*; B. BONTEMPI; F. MAILLIET; P. DELAGRANGE; M. SPEDDING; T. M. JAY. *INSERM U894, Univ. Paris Descartes, Inst. des Maladies Neurodégénératives, CNRS UMR 5293 and Universités Bordeaux 1 et 2, Inst. de Recherche, Servier, Spedding Res. Solutions.*

2:00 UU61 **467.02** Differential translational control mechanisms mediating the persistence of memory. T. N. HUYNH*; E. SANTINI; E. KLANN. *Ctr. for Neural Science, New York Univ.*

3:00 UU62 **467.03** ● Nogo Receptor 1 limits fear extinction learning in adulthood. S. M. BHAGAT*; S. M. STRITTMATTER. *Yale Univ., Yale Univ.*

4:00 UU63 **467.04** Effect of food restriction on extinction, recovery and persistence of auditory fear memory in rats. P. WU*; S. MENG; Y. XUE; L. LU. *Natl. Inst. On Drug Dependence, Peking Univ.*

1:00 UU64 **467.05** Impaired extinction of contextual fear conditioning in iNOS knockout mice is associated to changes in mRNA expression of nitric oxide and endocannabinoid system components. S. F. LISBOA*; F. V. GOMES; A. L. DA SILVA; F. Q. CUNHA; S. R. L. JOCA; F. S. GUIMARÃES; L. B. M. RESSTEL. *Univ. of São Paulo - FMRP, Ctr. for Interdisciplinary Res. on Applied Neurosciences (NAPNA), Univ. of São Paulo - FCFRP.*

2:00 UU65 **467.06** Dorsolateral periaqueductal gray matter endocannabinoid system modulates the expression of contextual fear conditioning: Involvement of local nmda receptors, nitric oxide and trpv1 receptors. L. B. RESSTEL*; D. ULIANA; S. HOTT; S. LISBOA. *Schl Med, FMRP-USP.*

3:00 UU66 **467.07** D-cycloserine hastens extinction of fear conditioning in a latent inhibition paradigm but does not interact with prolonged extinction in the pre-exposed groups. W. P. JORDAN*; S. A. D'AMBROSIO; N. E. DEANGELI; M. L. KLIMA; H. J. PRIBUT. *St Mary's Col. of MD.*

4:00 UU67 **467.08** ▲ Extinction of spatial navigation in the Morris water task: The effect of brief reminders. T. DONALDSON*; C. MAGCALAS; D. BARTO; K. AKERS; D. HAMILTON. *Univ. of New Mexico, Wayne State Univ.*

1:00 UU68 **467.09** The effects of mild copper deficiency on fear extinction and motor behavior. C. NEELY*; S. LIPPI; S. WILKINS; J. FLINN. *George Mason Univ.*

2:00 UU69 **467.10** Neuronal activity in prelimbic cortex correlates with expression of active avoidance. C. BRAVO-RIVERA; M. M. DIEHL*; C. ROMAN-ORTIZ; P. A. PAGAN-RIVERA; G. J. QUIRK. *Univ. of Puerto Rico, Sch. of Med., Univ. of Puerto Rico, Sch. of Med., Univ. of Puerto Rico, Sch. of Med.*

3:00 UU70 **467.11** An avoidance-based model of exposure with response prevention in rats. J. RODRIGUEZ-ROMAGUERA*; H. BRAVO-RIVERA; E. I. GONZÁLEZ-ARAYA; A. M. MINIER-TORIBO; B. D. GREENBERG; S. A. RASMUSSEN; G. J. QUIRK. *Univ. of Puerto Rico, Brown Univ., Brown Univ.*

4:00 UU71 **467.12** Neural correlates of conditioned fear retrieval in the paraventricular thalamus. K. QUINONES-LARACUENTE*; F. H. DO MONTE; G. J. QUIRK. *Univ. of Puerto Rico Sch. Med.*

1:00 UU72 **467.13** Differential rearing affects pCREB expression in the rat nucleus accumbens following fear extinction. K. C. JOHNS*; M. G. MERSMANN; E. K. REINHARDT; M. E. CAIN. *Kansas State Univ.*

2:00 UU73 **467.14** Fibroblast growth factor 2 enhances the retention of extinction learning in resilient but not vulnerable rats bred for their locomotor response to novelty. K. E. PRATER*; E. L. AURBACH; H. LARCINESE; P. MARAS; C. A. TURNER; P. BLANDINO, Jr.; S. J. WATSON; S. MAREN; H. AKIL. *Univ. of Michigan, Univ. of Michigan, Texas A&M Univ.*

3:00 UU74 **467.15** Environmental enrichment ameliorate numbing behavior on an animal model of posttraumatic stress disorder using a shuttle box in rats. H. TODA*; T. TAKAHASHI; K. SHIMIZU; M. NIBUYA; A. YOSHINO. *Natl. Def. Med. Col., Natl. Def. Med. Col. Res. Inst.*

4:00 UU75 **467.16** Pharmacogenetic excitation of basolateral amygdala glutamatergic neurons mimics positive prediction error to enable fear learning. A. SENGUPTA; G. P. MCNALLY*. *Univ. of New South Wales, Univ. New South Wales.*

1:00 UU76 **467.17** An amygdala-periaqueductal gray circuit for calculating prediction errors in amygdala neurons and setting the strength of fear memories. T. OZAWA*; E. A. YCU; T. AHMED; A. KUMAR; J. KOIVUMAA; J. P. JOHANSEN. *RIKEN Brain Sci. Inst. - Wako, Natl. Univ. of Sci. and Technol.*

2:00 UU77 **467.18** *In vitro* conditioned inhibition changes in Hermissenda type b photoreceptors. J. FARLEY*. *Indiana Univ.*

3:00 UU78 **467.19** Neuronal morphology and GSK-3b signaling associated transcripts are differential features in the hippocampus of fear-resilient mice during fear conditioning. S. L. DASH; D. JACOBOWITZ; R. URSANO; C. L. DALGARD*. *USUHS, USUHS, USU - Neurosci.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 UU79 **467.20** Upregulation of Kv12.2 following contextual fear conditioning and implications for Alzheimer's disease memory decline. L. A. WILMOTT*; S. M. NEUNER; K. A. HOPE; C. C. KACZOROWSKI. *The Univ. of Tennessee Hlth. Sci. Ctr., Univ. of Tennessee Hlth. Sci. Ctr.*

1:00 UU80 **467.21** Learned fear and safety in rats: Role of neurotransmitters and BDNF expression. C. E. VASQUEZ*; R. RIENER; J. RICCA; R. COSSIO; G. B. BRITTON. *INDICASAT AIP, Acharya Nagarjuna Univ., Univ. of Santa Cruz, Lafayette Col.*

2:00 UU81 **467.22** Neuroendocrine and gene expression changes associated with delayed susceptibility and sustained resilience to juvenile social defeat. M. S. LATSKO*; S. HAYNIE; L. FARBAUCH; A. JASNOW. *Kent State Univ.*

3:00 UU82 **467.23** Behavioral investigation of complex associative memory in tone-light compound fear conditioning in mice. K. TOROPOVA*; O. IVASHKINA; M. ROSHCHINA; K. ANOKHIN. *Kurchatov Institute, Dept. of Neurosci., Moscow Inst. of Physics and Technology, Lab. of Brain Stem Cells, Anokhin Inst. of Normal Physiol. RAMS, Inst. of Higher Nervous Activity and Neurophysiol.*

4:00 UU83 **467.24** ▲ Embryonic lead exposures cause learning deficits in adult male and female zebrafish. N. MERCADO-IDZIAK; J. BLUCHER; D. WEBER; X. XU*. *Grand Valley St Univ., Univ. of Wisconsin-Milwaukee.*

1:00 UU84 **467.25** ● Calcium imaging of stimulus specific neuronal responses in the lateral amygdala during fear learning. B. F. GREWE*; J. LECOQ; L. KITCH; J. LI; J. MARSHALL; G. VENKATARAMAN; J. GRÜNDEMANN; A. LÜTHI; M. J. SCHNITZER. *Stanford Univ., FMI.*

2:00 UU85 **467.26** Is conditioned defeat associated with differential activation of brain regions that influence resilience or susceptibility to stress? B. M. THOMPSON*; K. E. MCCANN; K. L. HUHMAN. *Univ. of Georgia.*

3:00 UU86 **467.27** ● Tickling alters fear-related and cognitive behaviors in rats isolated during adolescence. M. HORI*; K. YAMADA; J. OHNISHI; H. FURUIE; K. MURAKAMI; Y. ICHITANI. *Fndn. For Advancement of Intl. Sci., Univ. of Tsukuba, Tokyo Kasei Univ.*

4:00 UU87 **467.28** Stress during stress hyporesponsive period (SHRP) attenuates both retention and extinction of fear memory in rats. P. K. MISHRA*, JR; B. M. KUTTY; L. T. RAO. *NIMHANS.*

POSTER

468. Fear and Aversive Memories: Modulation

Theme F: Cognition and Behavior

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

1:00 UU88 **468.01** Sensitive period for fear regulation during adolescence. S. S. PATTWELL*; C. LISTON; D. JING; I. NINAN; B. J. CASEY; K. DEISSEROTH; F. S. LEE. *Fred Hutchinson Cancer Res. Ctr., Weill Cornell Med. Col., New York Univ. Sch. of Med., Stanford Univ.*

2:00 UU89 **468.02** Acute effect of X-irradiation and carbon ion-irradiation on fear memory formation and its underlying mechanism. A. PUSPITASARI; N. KOGANEZAWA; N. KOJIMA; M. ISONO; Y. YUKARI; T. SHIRAO*. *Gunma Univ. Grad Sch. Med., Toyo Univ., Gunma Univ. Grad Sch. Med.*

3:00 UU90 **468.03** Effects of self-administered nicotine on fear conditioning in rats. C. WEBBER; C. W. ADAM; K. STOLL; E. G. MELONI; S. B. CAINE*; W. A. CARLEZON. *Harvard Med. School, McLean Hosp., Mclean Hosp., Harvard Med. School, McLean Hosp.*

4:00 UU91 **468.04** A curcumin-enriched diet prevents chronic corticosterone exposure from enhancing the consolidation and reconsolidation of a Pavlovian fear memory. M. S. MONSEY*; L. M. BOYLE; M. L. ZHANG; C. P. NGUYEN; D. M. GERHARD; J. R. TAYLOR; G. E. SCHAFE. *Yale Univ., Yale Univ., Yale Univ., Hunter Col., The City Univ. of New York.*

1:00 UU92 **468.05** Behavioral and cognitive alterations were not affected by fish supplementation in pilocarpine-induced temporal lobe epilepsy. R. M. CYSNEIROS*; F. A. SCORZA. *Univ. Presbiteriana Mackenzie, Univ. Federal de Sao Paulo.*

2:00 VV1 **468.06** Inhibition of mTOR kinase via rapamycin blocks persistent predator stress-induced fear memories. J. J. BLUNDELL*; J. WHITEMAN; K. FIFIELD; M. HEBERT. *Mem. Univ., Mem. Univ.*

3:00 VV2 **468.07** Modeling cognitive therapy in the rat: Use of fear extinction training to reverse chronic stress-induced cognitive inflexibility and coping style choice. E. A. FUCICH*; J. DONEGAN; D. MORILAK. *Univ. of Texas Hlth. Sci. Ctr.*

4:00 VV3 **468.08** Re-exposure to fear conditioned stimuli influences the relative use of learning strategy and enhances consolidation of habit memory. K. LEONG*; M. G. PACKARD. *Texas A&M Univ., Texas A&M Univ.*

1:00 VV4 **468.09** Role of social dominance in Pavlovian fear conditioning and the social transmission of fear. C. E. JONES*; M. H. MONFILS. *The Univ. of Texas.*

2:00 VV5 **468.10** Fear conditioning at p17/p25: The effects of fluoxetine on retention and re-conditioning in adulthood. R. ROQUET*; E. BAUER; M. MONFILS. *The Univ. of Texas At Austin, Barnard Col.*

3:00 VV6 **468.11** Reconsolidation update mechanisms and metabolic enhancer USP methylene blue operate independently to attenuate fear memories. A. AUCHTER*; F. GONZALEZ-LIMA; M. H. MONFILS. *Univ. of Texas At Austin.*

4:00 VV7 **468.12** Sodium Nitroprusside improves the fear conditioning deficit in a schizophrenia animal model - the SHR strain. M. C. DIANA*; F. F. FIEL; M. A. SUIAMA; V. V. O. JUSTI; N. D. DA SILVA; V. C. ABÍLIO. *UNIFESP.*

1:00 VV8 **468.13** ▲ Faah inhibitor ol-135 disrupts contextual, but not auditory, fear conditioning in rats. K. SZOLUSHA*; R. BIND; K. KERNEY; D. BOGER; E. BILSKY; M. BURMAN. *Univ. of New England, Univ. of New England, The Scripps Res. Inst., Univ. of New England.*

2:00 VV9 **468.14** Memory recall and modifications by activating neurons with elevated CREB. J. KWON; J. KIM; H. KIM; S. A. JOSSELYN; J. HAN*. *KAIST, Hop. for Sick Children.*

3:00 VV10 **468.15** Optogenetic activation of presynaptic inputs in lateral amygdala forms associative fear memory. J. KWON*; R. NAKAGIMA; H. KIM; Y. JEONG; G. AUGUSTINE; J. HAN. *KAIST, KIST.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 VV11 **468.16** Oxytocin in the central nucleus of the amygdala gates freezing allowing for maternal defense responses and transmission of fear to offspring. E. M. RICKENBACHER*; R. PERRY; K. SZYBA; S. AL AIN; R. SULLIVAN; M. MOITA. *Champalimaud Fndn., Emotional Brain Institute, Nathan Kline Inst. for Psychiatric Res., Dept. of Neurosci. and Physiology, Sackler Inst. for Grad. Biomed. Sciences, New York Univ. Sch. of Med., New York Univ. Child Study Center, Dept. of Child and Adolescent Psychiatry, New York Univ. Sch. of Med.*

1:00 VV12 **468.17** Molecular mechanisms of VNS-enhanced extinction of fear. A. ALVAREZ-DIEPPA*; J. CHILDS; S. WILLETT; S. KROENER; C. MCINTYRE. *Univ. of Texas At Dallas.*

2:00 VV13 **468.18** Learning to unlearn fear: A novel animal model of exposure therapy. A. M. SCHNEIDER*; P. E. SIMSON; D. KALAMARIDES; M. LICHTEN; J. WALSH; C. DAIMON; L. G. KIRBY. *Swarthmore Coll, Miami Univ., Temple Univ. Sch. of Med.*

3:00 VV14 **468.19** Been there, done that: Experiencing freezing is required for observational fear in the context of social interactions. A. CRUZ*; M. A. MOITA. *Champalimaud Neurosci. Programme.*

4:00 VV15 **468.20** Fearful silence: The role of lateral amygdala and its auditory inputs in social transmission of fear. A. PEREIRA*; S. Q. LIMA; M. A. MOITA. *Champalimaud Fndn.*

1:00 VV16 **468.21** Enhanced consolidation of habit memory by post-training exposure to a fear CS is blocked by propranolol administration. J. GOODMAN*; K. LEONG; T. D. GOODE; S. MAREN; M. G. PACKARD. *Texas A&M Univ., Texas A&M Univ., Texas A&M Univ.*

2:00 VV17 **468.22** Effects of fluoxetine on molecular correlates of pavlovian fear conditioning in rats with a history of chronic corticosterone exposure. M. A. BRIONES*; M. S. MONSEY; L. M. BOYLE; M. L. ZHANG; C. P. NGUYEN; M. SELIGSOHN; T. K. WINER; K. LOPEZ; G. E. SCHAFE. *The Grad. Ctr. CUNY, Hunter Col., Yale Univ.*

3:00 VV18 **468.23** Effects of intra-amygdalar microinjection of the metabotropic group II (mGlu II) antagonist, LY341495 (LY34) on fear extinction and sleep. L. L. WELLMAN*; E. DONG; L. YANG; L. D. SANFORD. *Eastern VA Med. Sch.*

4:00 VV19 **468.24** Adenosine A2A receptors in the amygdala control synaptic plasticity and conditional fear memory. A. SIMÕES*; N. GONÇALVES; D. RIAL; R. CUNHA. *CNC-Center For Neurosci. and Cell Biology, Univ., CNC-Center for Neurosci. and Cell Biology, Univ. of Coimbra, Fac. of Med.*

1:00 VV20 **468.25** Lentiviral-mediated overexpression of Neuropeptide Y in fear regulatory circuits: Neuroanatomical and behavioral characterization. S. SCHMELTZER*; L. L. VOLLMER; C. M. DOLGAS; T. D. GERACIOTI; S. P. WILSON; R. SAH. *Univ. of Cincinnati, VA Med. Ctr., Univ. of Cincinnati, Univ. of South Carolina Sch. of Med.*

2:00 VV21 **468.26** Threat-elicited defensive behavior is modulated by designer receptor manipulation of locus coeruleus. Y. GU*; R. M. SEARS; J. E. LEDOUX. *New York Univ., Nathan Kline Inst.*

3:00 VV22 **468.27** Revaluation of opposing reinforcers of avoidance behaviour. A. B. FERNANDO*; G. P. URCELAY; A. C. MAR; A. DICKINSON; T. W. ROBBINS. *Univ. of Oxford, Univ. of Cambridge, Behavioural and Clin. Neurosciences Inst.*

POSTER

469. Cocaine

Theme F: Cognition and Behavior

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

1:00 VV23 **469.01** ▲ Chronic cocaine decreases GFAP of astrocytes in rat brain characterized by optical imaging. S. SUNDARESH*; Q. ZHANG; K. CLARE; N. D. VOLKOW; C. DU. *Stony Brook Univ., Huazhong Univ. of Sci. and Technol., NIH, Natl. Inst. of Drug Abuse.*

2:00 VV24 **469.02** Effects of short-term cocaine self-administration on neural signals related to flexible decision-making in the rostral striatum. B. J. SLEEZER*; T. C. BLANCHARD; B. Y. HAYDEN. *Univ. of Rochester.*

3:00 VV25 **469.03** Long-term consequences of the excessive self-administration of cocaine on brain vascular structure. C. NICOLAS*; M. FRANCHETEAU; P. FERNAGUT; M. SOLINAS. *LNEC INSERM U1084, Bat B36, UMR 5293, Inst. of Neurodegenerative Dis.*

4:00 VV26 **469.04** Longitudinal structural changes following long term cocaine self-administration in rhesus macaques: Relationship with motivation of drug administration. H. P. JEDEMA*; A. BONNER; J. N. PORTER; H. J. AIZENSTEIN; C. W. BRADBERRY. *Univ. Pittsburgh, Univ. Pittsburgh, Univ. Pittsburgh, VA.*

1:00 VV27 **469.05** Rapid transient plasticity in both dopamine D1 and D2 receptor expressing medium spiny neurons in accumbens mediate relapse to cocaine seeking. J. A. HEINSBROEK*; W. GRIFFIN III; A. C. W. SMITH; L. N. LUDERMAN; M. D. SCOFIELD; P. W. KALIVAS; C. D. GIPSON. *Med. Univ. of South Carolina.*

2:00 VV28 **469.06** Rapid cocaine induced sensitization of phasic dopamine transmission in the nucleus accumbens shell. M. A. BRYAN*; B. F. SINGER; B. J. ARAGONA; T. E. ROBINSON. *The Univ. of Michigan.*

3:00 VV29 **469.07** Psychosocial stress-induced reinstatement of cocaine-seeking behavior in rats. D. F. MANVICH*; T. A. STOWE; D. WEINSHENKER. *Emory Univ., Emory Univ.*

4:00 VV30 **469.08** Cue-induced cocaine seeking involves nucleus accumbens core glutamate overflow mediated by mGluR2/3 and mGluR5. C. D. GIPSON*; S. SPENCER; N. STANKEVICIUTE; N. ALLEN; R. J. SMITH; P. W. KALIVAS. *Med. Univ. of South Carolina.*

1:00 VV31 **469.09** Transient synaptic plasticity induced by relapse to a cocaine cue is reversed by giving access to cocaine. S. M. SPENCER*; P. W. KALIVAS. *Med. Univ. of South Carolina.*

2:00 VV32 **469.10** Long-access cocaine self-administration induces persistent drug/cue associations revealed by cocaine-conditioned 50 kHz USVs but not conditioned overt behaviors. J. M. RENO*, JR; E. M. KUSEY; T. SCHALLERT; C. L. DUVAUCHELLE. *Univ. of Texas At Austin, Univ. of Texas at Austin, Univ. of Texas at Austin.*

3:00 VV33 **469.11** Role of glutathione peroxidase1 gene in the oxidative burdens mediated by cocaine drug dependence in the striatum and liver of mice. E. SHIN*; H. MAI; T. L. NGUYEN; T. T. TU; Y. NAM; H. KIM. *Kangwon Natl. Univ.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 VV34 **469.12** Chronic cocaine is associated with reduced cerebral blood flow and with increase of microvascular density in the rat brain. Q. ZHANG*; J. YOU; P. LIU; W. WANG; Y. PAN; N. D. VOLKOW; C. DU. *Stony Brook Univ., Huazhong Univ. of Sci. and Technol., NIH.*

1:00 VV35 **469.13** ● Self-administration and cardiovascular assessments of a cocaine-amphetamine combination drug in the adult male rat. J. D. TOOT*; T. PRINGLE; M. BENNETT; M. HACKMAN; K. LANDIS; P. ATTERSON. *WIL Res. Lab, LLC.*

2:00 VV36 **469.14** The medial preoptic area modulates cocaine-induced locomotion in male rats. R. G. WILL*; J. R. MARTZ; T. HATTORI; J. M. DOMINGUEZ. *Univ. of Texas Austin.*

3:00 VV37 **469.15** Compulsive cocaine self-administration decreases cerebral blood flow and tissue oxygenation in the prefrontal cortex as measured by *in vivo* optical neuroimaging. C. DU*; Y. PAN; S. WEE; K. PARK; N. ZHOU; J. YOU; G. KOOB; N. D. VOLKOW. *Stony Brook Univ., The Scripps Res. Inst., Natl. Natl. Inst. on Alcohol Abuse and Alcoholism, Natl. Inst. on Drug Abuse.*

POSTER

470. Fear and Anxiety: Human and Nonhuman Primates

Theme F: Cognition and Behavior

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

1:00 VV38 **470.01** Single neuronal activity in the monkey orbitofrontal cortex related to reward value processing during decision-making. T. SETOGAWA*; T. MIZUHIKI; F. AKIZAWA; R. KUBOKI; N. MATSUMOTO; M. SHIDARA. *Fac. of Medicine, Univ. of Tsukuba, Grad Sch. of Comprehensive Human Sci, Univ. of Tsukuba, Human Technol. Res. Inst., AIST.*

2:00 VV39 **470.02** Early and late reorganization of amygdala connections following unilateral and bilateral destruction of the visual cortex. B. DE GELDER; M. DIANO; R. GOEBEL; M. TAMIETTO*. *Maastricht Univ., Univ. of Torino.*

3:00 VV40 **470.03** Prefrontal mechanisms of hierarchical reinforcement learning. F. CHIANG*; J. D. WALLIS. *Univ. of California, Univ. of California.*

4:00 VV41 **470.04** ● Single neuron coding of fairness in the human anterior midcingulate cortex. D. M. DEVILBISS*; R. L. JENISON. *Univ. of Wisconsin.*

1:00 VV42 **470.05** Observational extinction attenuates learned fear by recruitment of the vmPFC in humans. J. HAAKER*; A. GOLKAR; I. SELBING; A. OLSSON. *Univ. Med. Ctr. Hamburg-Eppendorf (UKE), Karolinska Institutet.*

2:00 VV43 **470.06** Individual differences in proactive and reactive threat responses during signaled shock avoidance in humans. A. X. GORKA*; K. S. LABAR; A. R. HARIRI. *Duke Univ.*

3:00 VV44 **470.07** Machine learning of whole-brain connectivity patterns predicts dopaminergic state. R. T. GERRATY*; L. SCHMIDT; N. ROUHANI; E. K. BRAUN; T. D. WAGER; I. KAHN; D. SHOHAMY. *Columbia Univ., Univ. of Colorado, Israel Inst. of Technol.*

4:00 VV45 **470.08** Predicting pain from aversive fear conditioning modelling. V. TAYLOR*; M. ROY; M. LARAMÉE; P. RAINVILLE. *Univ. de Montréal, Ctr. de recherche de l'Institut universitaire de gériatrie de Montréal (CRIUGM), Ctr. de recherche en neuropsychologie et cognition (CERNEC), Concordia Univ., PERFORM Ctr., Univ. de Montréal.*

1:00 VV46 **470.09** Overexpression of corticotropin releasing hormone in the central nucleus of the amygdala alters metabolism and functional connectivity in non-human primates. A. S. FOX*; J. A. OLER; D. R. MCFARLIN; B. P. GRABOW; M. E. OLSEN; E. K. BRODSKY; R. KOVNER; M. K. RIEDEL; E. M. FEKETA; D. P. M. TROMP; R. M. BIRN; P. H. ROSEBOOM; A. L. ALEXANDER; M. E. EMBORG; W. F. BLOCK; N. H. KALIN. *Univ. of Wisconsin, Univ. of Wisconsin, Wisconsin Natl. Primate Res. Ctr.*

2:00 VV47 **470.10** Distal microstructural alterations resulting from CRH overexpression in the central nucleus of the amygdala of non-human primates. D. P. TROMP*; A. S. FOX; J. A. OLER; B. P. GRABOW; M. E. OLSEN; E. K. BRODSKY; R. KOVNER; M. K. RIEDEL; E. M. FEKETE; R. M. BIRN; P. H. ROSEBOOM; A. L. ALEXANDER; M. E. EMBORG; W. F. BLOCK; N. H. KALIN. *Univ. of Wisconsin, Univ. of Wisconsin, Univ. of Wisconsin, Wisconsin Natl. Primate Res. Ctr.*

3:00 VV48 **470.11** Targeted gene delivery using MRI-guided surgery to alter anxiety in non-human primates. J. A. OLER*; A. S. FOX; B. P. GRABOW; M. E. OLSEN; E. K. BRODSKY; R. KOVNER; M. K. RIEDEL; E. M. FEKETA; P. H. ROSEBOOM; A. L. ALEXANDER; M. E. EMBORG; W. F. BLOCK; N. H. KALIN. *Univ. of Wisconsin, Univ. of Wisconsin, Wisconsin Natl. Primate Res. Ctr.*

4:00 VV49 **470.12** Pain and decision style affects performance on emotional decision-making. B. FURL*; F. S. RASSU; M. W. MEAGHER. *Texas A&M Univ.*

1:00 VV50 **470.13** ● Undifferentiated physiological responses to safety and unpredictable threat are associated with high trait anxiety and lower emotional resilience in competitive sport. Y. MIKHEENKO*; D. FLETCHER; A. C. ROBERTS; L. CLARK. *Univ. of Cambridge, Univ. of Cambridge, Loughborough Univ., Univ. of Cambridge.*

2:00 VV51 **470.14** Early maternal deprivation accelerates amygdala-based fear learning in humans. J. A. SILVERS*; D. S. LUMIAN; L. GABARD-DURNAM; D. GEE; B. GOFF; D. S. FARERI; C. CALDERA; J. FLANNERY; E. TELZER; K. HUMPHREYS; N. TOTTENHAM. *Columbia Univ., UCLA, Columbia Univ., Univ. of Oregon, Univ. of Illinois, Urbana-Champaign.*

3:00 VV52 **470.15** Anxiety vulnerable individuals exhibit reduced acoustic startle response. T. ALLEN*; M. SPRYCHA; R. J. SERVATIUS. *Univ. Northern Colorado, Stress and Motivated Behavior Inst., Rutgers Univ., Syracuse VA Med. Ctr.*

4:00 VV53 **470.16** Fear that face - Studies on the electrocortical facilitation of faces in (social) conditioning. M. J. WIESER*. *Univ. Würzburg.*

1:00 VV54 **470.17** Functional neural responses to threat processing in relation to morning cortisol changes among temperamentally shy adults. A. TANG*; E. A. BEATON; J. SCHULKIN; G. B. HALL; L. A. SCHMIDT. *McMaster Univ., Univ. of New Orleans, Georgetown Univ.*

2:00 VV55 **470.18** Modelling behavioural inhibition in a human approach-avoidance task. D. R. BACH*. *Univ. of Zurich, Univ. Col. London.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 VV56 **470.19** A model of amygdala-mPFC interactions for large resistance to extinction of partially reinforced fear memory. Y. LI*; S. ISHII; H. NAOKI. *Kyoto Univ., Kyoto Univ., Kyoto Univ.*

4:00 VV57 **470.20** Theta activity in Human approach-avoidance behaviour. S. KHEMKA*; G. BARNES; R. DOLAN; D. R. BACH. *Univ. of Zurich, Wellcome Trust Ctr. for Neuroimaging, Univ. Col. London.*

1:00 VV58 **470.21** Distinct medial prefrontal mechanisms associated with perceived threat biases and hyperarousal symptoms in OEF/OIF veterans. D. W. GRUPE*; J. B. NITSCHKE; R. J. DAVIDSON. *Univ. Wisconsin-Madison, Univ. Wisconsin-Madison.*

2:00 VV59 **470.22** Effects of paced breathing on cognitive flexibility during social-evaluative stress. B. J. FERGUSON*; J. HADLEY; W. SNYDERS; D. Q. BEVERSDORF. *Univ. of Missouri, Univ. of Missouri.*

3:00 VV60 **470.23** Human primary auditory cortex encodes threat-predicting information of complex but not simple sounds during fear conditioning. M. STAIB*; D. R. BACH. *Univ. of Zurich.*

4:00 VV61 **470.24** Specific connectivity profiles for deep and superficial amygdala nuclei in humans. A. ABIVARDI*; D. R. BACH. *Psychiatrische Universitätsklinik Zürich.*

POSTER

471. Invertebrate Motor Circuits

Theme F: Cognition and Behavior

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

1:00 VV62 **471.01** Multiple stages of functionally synergistic multimodal convergence. M. ZLATIC*; T. OHYAMA; C. SCHNEIDER-MIZELL; J. TRUMAN; R. FETTER; R. FRANCOVILLE; A. CARDONA. *HHMI: Janelia Farm Res. Campus, HHMI Janelia Farm, HHMI Janelia Farm.*

2:00 VV63 **471.02** Mapping sensorimotor networks in *Drosophila* using optogenetics and two-photon calcium imaging. R. FRANCONVILLE*; V. JAYARAMAN. *Janelia Farm Res. Campus.*

3:00 VV64 **471.03** Organization of descending interneurons in *Drosophila.* S. NAMIKI*; M. DICKINSON; A. WONG; G. RUBIN; W. KORFF; G. CARD. *HHMI Janelia Farm Res. Campus, Univ. of Washington.*

4:00 VV65 **471.04** Behavior and circuit analysis of sequence generation during grooming. J. H. SIMPSON*; P. CHUNG; R. FRANCONVILLE; S. HAMPEL; P. RAVBAR; A. M. SEEDS. *HHMI Janelia Farm Res. Campus.*

1:00 VV66 **471.05** Neural and molecular determinants of the circuit underlying molting behaviors in *Drosophila.* F. DIAO; F. DIAO; J. SHI; W. MENA; B. MARK; D. PARK; P. TAGHERT; J. EWER; B. H. WHITE*. *NIMH, Washington Univ., Univ. Valparaiso.*

2:00 VV67 **471.06** Population coding of walking locomotion by descending neural activities in the cricket. H. OGAWA*; T. SHUDO; M. SOMEYA; M. HARUNO. *Hokkaido Univ., Hokkaido Univ., NICT.*

3:00 VV68 **471.07** CPG-driven locomotion of a robotic lobster. D. BLUSTEIN*; A. WESTPHAL; J. AYERS. *Northeastern Univ., Schlumberger.*

4:00 VV69 **471.08** Degenerate pathways for excitation of the Caenorhabditis elegans pharynx. N. TROJANOWSKI*; O. PADOVAN-MERHAR; D. M. RAIZEN; C. FANG-YEN. *Univ. of Pennsylvania.*

1:00 VV70 **471.09** Neural mechanisms mediating localization of vibrational signals in the fiddler crab, Uca pugilator. A. W. STAFFORD*; J. HALL. *Univ. of Tennessee.*

2:00 VV71 **471.10** The effect of proprioceptive feedback on motor bursts in crayfish. J. BACQUE-CAZENAVE*; B. CHUNG; D. CATTAERT; W. HEITLER; D. H. EDWARDS. *Neurosci. Inst., Inst. de neurosciences cognitives et integratives d'aquitaine, school of Biol.*

3:00 VV72 **471.11** The effect of presynaptic membrane potential on short-term facilitation. B. C. LUDWAR*; E. C. CROPPER. *Mount Sinai Sch. of Med., Longwood Univ.*

4:00 VV73 **471.12** The interplay between sensory feedback and intrinsic neural dynamics in a neuromechanical model of motor pattern generation. D. LYTTLE*; K. SHAW; J. GILL; M. CULLINS; J. MCMANUS; H. LU; P. THOMAS; H. CHIEL. *Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Univ.*

1:00 VV74 **471.13** ▲ Investigating electrical activity accompanying functional recovery of the pyloric circuit following isolation from neuromodulatory inputs. R. BUTTERFIELD*; A. E. HUDSON; A. A. PRINZ. *Emory Univ.*

2:00 VV75 **471.14** Homeostatic plasticity directed by physical therapy facilitates locomotor recovery after removal of cephalic inputs. C. M. HARLEY*; M. REILLY; C. STEWART; E. MORLEY; M. SONGPITAK; K. CRISP; K. A. MESCE. *Univ. of Minnesota, St Olaf Col., St Olaf Col.*

• Indicated a real or perceived conflict of interest, see page 156 for details.

▲ Indicates a high school or undergraduate student presenter.

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
282.05	**A. Abeliovich:** 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. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Alector. F. Consulting Fees (e.g., advisory boards); Alector.
282.07	**B.L. Wolozin:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Aquinnah Pharmaceuticals Inc.
283.14	**T. Wyss-Coray:** Other; Co-founder of a company related to this work.
284.10	**P.C. Araujo:** Other; CNPq, UERJ. **O.M.M.S. de Almeida:** A. Employment/Salary (full or part-time); UERJ. **P.C. Barradas:** A. Employment/Salary (full or part-time); UERJ.
286.11	**F. Nothias:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent# WO2014013188 A1. **A. Montembault:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent# WO2014013188 A1. **S. Soares:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); WO2014013188 A1. **L. David:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent# WO2014013188 A1.
286.14	**B.K. Mueller:** A. Employment/Salary (full or part-time); Abbvie. **C.H. Tator:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Abbvie.
287.03	**R.R. Matsumoto:** 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; Avanir Pharmaceuticals. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Avanir Pharmaceuticals. F. Consulting Fees (e.g., advisory boards); Avanir Pharmaceuticals.
287.04	**R. Hen:** F. Consulting Fees (e.g., advisory boards); Lundbeck, Servier, Roche.
287.05	**R. Hen:** F. Consulting Fees (e.g., advisory boards); Lundbeck, Servier, Roche.
287.10	**L. Islam:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); medtronic. **R. Ranieri:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); medtronic. **G. Messina:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); medtronic. **A. Franzini:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); medtronic. **S. Scarone:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); medtronic. **O. Gambini:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; medtronic.
290.13	**B.M. Spiegelman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Ember Therapeutics. F. Consulting Fees (e.g., advisory boards); Ember Therapeutics.
299.07	**H.S. Jensen:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **J. Kehler:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **C. Bundgaard:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **M. Rottlander:** A. Employment/Salary (full or part-time); Zeeland Pharma A/S. **S.M. Blom:** A. Employment/Salary (full or part-time); Nansen Neuroscience Network.
299.13	**J.I. Nagy:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Thermo-Fisher.
299.21	**M.R. Brown:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AUT compounds were supplied by Autifony Therapeutics. **C.H. Large:** A. Employment/Salary (full or part-time); Co-founder and full-time employee of Autifony Therapeutics. **G. Alvaro:** A. Employment/Salary (full or part-time); Co-founder and full-time employee of Autifony Therapeutics. **L. El-Hassar:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AUT compounds were supplied by Autifony Therapeutics. **L.K. Kaczmarek:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AUT compounds were supplied by Autifony Therapeutics.
301.01	**M. Kawatani:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Daiichi Sankyo Healthcare Co., Ltd.
301.03	**S.A. Neale:** A. Employment/Salary (full or part-time); Neurexpert Limited. **T.E. Salt:** A. Employment/Salary (full or part-time); Neurexpert Limited.
301.10	**C. Lindwall-Blom:** A. Employment/Salary (full or part-time); Cellectricon AB. **Å. Jägervall:** A. Employment/Salary (full or part-time); Cellectricon AB. **M. Karlsson:** A. Employment/ Salary (full or part-time); Cellectricon AB. **P. Karila:** A. Employment/Salary (full or part-time); Cellectricon AB.
305.02	**M. Chopp:** 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 R01AG037506.
305.08	**R.K. Leak:** A. Employment/Salary (full or part-time); Duquesne University.
305.27	***. Williams:** A. Employment/Salary (full or part-time); Trinity University.
306.11	**Y. Yamaguchi:** A. Employment/Salary (full or part-time); Tokyo University of Pharmacy and Life Sciences. **T. Ishibashi:** A. Employment/Salary (full or part-time); Tokyo University of Pharmacy and Life Sciences. **H. Baba:** A. Employment/Salary (full or part-time); Tokyo University of Pharmacy and Life Sciences.
307.09	**J.D. Vardigan:** A. Employment/Salary (full or part-time); Merck & Co., Inc. **C.E. Cannon:** A. Employment/Salary (full or part-time); Merck & Co., Inc. **V. Puri:** A. Employment/ Salary (full or part-time); Merck & Co., Inc. **M. Dancho:** A. Employment/Salary (full or part-time); Merck & Co., Inc. **A. Koser:** A. Employment/Salary (full or part-time); Merck & Co., Inc. **M. Wittmann:** A. Employment/Salary (full or part-time); Merck & Co., Inc. **S.D. Kuduk:** A. Employment/ Salary (full or part-time); Merck & Co., Inc. **J.J. Renger:** A. Employment/Salary (full or part-time); Merck & Co., Inc. **J. Uslaner:** A. Employment/Salary (full or part-time); Merck & Co., Inc.
307.17	**M. Verma:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Anatabine was supplied for this research by Rock Creek Pharmaceuticals who sell anatabine as a dietary supplement.
307.23	**H. Borghys:** A. Employment/Salary (full or part-time); Full time employee of Janssen Research and Development. **B.**

ABSTRACT NUMBER	STATEMENT
	Van Broeck: A. Employment/Salary (full or part-time); Full employee of Janssen. **T. Erkens:** A. Employment/Salary (full or part-time); Full employee of Janssen. **T. Jacobs:** A. Employment/Salary (full or part-time); Full employee of Janssen. **K. De Waepenaert:** A. Employment/Salary (full or part-time); Full employee of Janssen. **D. Dhuyvetter:** A. Employment/Salary (full or part-time); Full employee of Janssen.
308.33	**C.N. Serhan:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Resolvyx Pharmaceuticals.
309.11	**O. Pasternak:** 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, Department of Defense, Brain and Behavior Research Foundation. F. Consulting Fees (e.g., advisory boards); University of Florida, Laureate Institute for Brain Research. **T.E. Golde:** 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, Ellison Medical Foundation. **M.S. Okun:** 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, Michael J. Fox, Parkinson Alliance, Smallwood Foundation, Bachmann-Strauss Foundation, Tourette Syndrome Association, UF Foundation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Demos, Manson, Amazon, Smashwords, Cambridge. F. Consulting Fees (e.g., advisory boards); National Parkinson Foundation, PeerView, Prime, Vanderbilt University. **D.E. Vaillancourt:** 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, Bachmann-Strauss and Tyler's Hope Foundation. F. Consulting Fees (e.g., advisory boards); NIH, National Parkinson's Foundation, UT Southwestern Medical Center, University of Illinois at Chicago, University of Colorado, University of Pittsburgh.
309.14	**A.L. Ridgel:** Other; Travel and hotel.
309.16	**E. Nagele:** F. Consulting Fees (e.g., advisory boards); Paid Consultant of Durin Technologies, Inc. **R. Nagele:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Owner of Durin Technologies, Inc., Stock interest in Durin Technologies, Inc.
310.14	**C.D. Sanberg:** Other; Natura Therapeutics, Inc. **P.C. Bickford:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Natura Therapeutic.
311.03	**K. Leclercq:** A. Employment/Salary (full or part-time); UCB Biopharma SPRL. **C.C. Rospo:** A. Employment/Salary (full or part-time); UCB Biopharma SPRL. **E. Jigorel:** A. Employment/Salary (full or part-time); UCB Biopharma SPRL. **M. De Ryck:** A. Employment/Salary (full or part-time); UCB Biopharma SPRL. **R. Kaminski:** A. Employment/Salary (full or part-time); UCB Biopharma SPRL.
312.03	**F.E. Jensen:** 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; INVESTIGAGTOR INITIATIED RESEARCH GRANT FROM EISAI CO., LTD.
312.06	**M.I. Naseer:** A. Employment/Salary (full or part-time); King Abdulaziz University Saudi Arabia. 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; Center of Excellence in Genomic Medicine and Research. **I. Ullah:** A. Employment/Salary (full or part-time); Gyeongsang National University South Korea.
312.10	**P.E. Sanchez:** 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 (BMS). **L. Mucke:** 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 (BMS).
313.02	**T. Bhullar:** A. Employment/Salary (full or part-time); University of Calgary. **G. Teskey:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; CIHR, Robertson Fund.
313.09	**B.M. Bader:** A. Employment/Salary (full or part-time); NeuroProof GmbH. **K. Jügelt:** A. Employment/Salary (full or part-time); NeuroProof GmbH. **C. Teichmann:** A. Employment/Salary (full or part-time); NeuroProof GmbH. **A. Voss:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroProof GmbH. **O.H. Schroeder:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroProof GmbH. **C. Ehnert:** A. Employment/Salary (full or part-time); NeuroProof GmbH.
313.12	**X. Xiong:** A. Employment/Salary (full or part-time); Stanford University.
313.15	**P. Pereira:** A. Employment/Salary (full or part-time); Universidade Federal do Rio Grande do Sul. **V.R. Coelho:** Other; Graduation Student. **C.G. Vieira:** Other; Under graduation student. **L.P. Souza:** Other; Under graduation student. **F. Moysés:** Other; Graduation Student. **C. Basso:** Other; Under graduation student. **D.K.M. Papke:** Other; Under graduation student. **F.S. Santos:** Other; Under graduation student. **I.R. Siqueira:** A. Employment/Salary (full or part-time); Universidade Federal do Rio Grande do Sul. **J.N. Picada:** A. Employment/Salary (full or part-time); Universidade Luterana do Brasil.
314.02	**Y. He:** A. Employment/Salary (full or part-time); research assistant. **T. Inoue:** A. Employment/Salary (full or part-time); assistant professor. **S. Nomura:** A. Employment/Salary (full or part-time); associate professor. **Y. Maruta:** A. Employment/Salary (full or part-time); assistant professor. **H. Kida:** A. Employment/Salary (full or part-time); assistant professor. **Y. Owada:** A. Employment/Salary (full or part-time); professor. **T. Yamakawa:** A. Employment/Salary (full or part-time); assistant professor. **T. Yamakawa:** A. Employment/Salary (full or part-time); professor. **M. Suzuki:** A. Employment/Salary (full or part-time); professor.
314.12	**C. Hamani:** F. Consulting Fees (e.g., advisory boards); St Jude Medical.
314.14	**W.F. Kaemmerer:** A. Employment/Salary (full or part-time); Medtronic, Inc. **C. Nielsen:** A. Employment/Salary (full or part-time); Medtronic, Inc. **J. Giftakis:** A. Employment/Salary (full or part-time); Medtronic, Inc. **C. Graves:** A. Employment/Salary (full or part-time); Medtronic, Inc. **K. Paralikar:** A. Employment/Salary (full or part-time); Medtronic, Inc. **T. Billstrom:** A. Employment/Salary (full or part-time); Medtronic, Inc. **L. Lentz:** A. Employment/Salary (full or part-time); Medtronic, Inc. **P. Stypulkowski:** A. Employment/Salary (full or part-time); Medtronic, Inc.
318.10	**M. Demeule:** A. Employment/Salary (full or part-time); Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent

ABSTRACT NUMBER	STATEMENT
	holder, excluding diversified mutual funds); Angiochem. **G. Yang:** A. Employment/Salary (full or part-time); Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **C. Che:** A. Employment/Salary (full or part-time); Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **S. Das:** A. Employment/Salary (full or part-time); Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **S. Tripathy:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **J. Currie:** A. Employment/Salary (full or part-time); Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **S. Lord-Dufour:** A. Employment/Salary (full or part-time); Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **A. Regina:** A. Employment/Salary (full or part-time); Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem. **J. Castaigne:** A. Employment/Salary (full or part-time); Angiochem. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Angiochem.
318.14	**J. McConathy:** 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; Eli Lilly/Avid. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); Eli Lilly/Avid. F. Consulting Fees (e.g., advisory boards); Eli Lilly/Avid, GE Healthcare, Siemens Healthcare. **T.L. Benzinger:** 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; Eli Lilly/Avid.
320.03	**J.H. Krystal:** F. Consulting Fees (e.g., advisory boards); several pharmaceutical and biotechnology companies with compensation less than $10,000 per year.
320.19	**A.W. Macdonald:** F. Consulting Fees (e.g., advisory boards); Astellas. **D.M. Barch:** F. Consulting Fees (e.g., advisory boards); Roche Amgen Pfizer p1vital.
321.01	**A. Frazer:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cyberonics Inc. kindly provided the vagal nerve stimulators for the study.
321.08	**L.P. Reagan:** 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; I.R.I.S. **C. Gabriel:** A. Employment/Salary (full or part-time); I.R.I.S. **E. Mocaër:** A. Employment/Salary (full or part-time); I.R.I.S.
321.11	**M. Jarpe:** A. Employment/Salary (full or part-time); Acetylon Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acetylon Pharmaceuticals. **J.H. Van Duzer:** A. Employment/Salary (full or part-time); Acetylon Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acetylon Pharmaceuticals. **S. Jones:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acetylon Pharmaceuticals. **R. Mazitschek:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acetylon Pharmaceuticals. F. Consulting Fees (e.g., advisory boards); Acetylon Pharmaceuticals. **O. Berton:** 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; Acetylon Pharmaceuticals. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Acetylon Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pending Patent Application.
321.12	**J. Schappi:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eli Lilly, Lundbeck. **A. Czysz:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eli Lilly, Lundbeck. **M.M. Rasenick:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eli Lilly, Lundbeck. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pax Neuroscience. F. Consulting Fees (e.g., advisory boards); Eli Lilly.
321.13&tab;	**The Disclosure Block has exceeded its maximum limit. Please call Tech support at (217) 398-1792 for more information.**
321.14	**C. Björkholm:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lundbeck, Merck Sharp and Dohme (MSD), Eli Lilly. **T.H. Svensson:** 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; Lundbeck, Merck Sharp and Dohme (MSD). C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lundbeck, Merck Sharp and Dohme (MSD), Eli Lilly. F. Consulting Fees (e.g., advisory boards); Lundbeck, Merck Sharp and Dohme (MSD).
321.24	**G. Gobbi:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent on melatonin MT1/MT2 ligands.
321.25	**S.M. O'Connor:** A. Employment/Salary (full or part-time); Bionomics Ltd. **A.A. Grishin:** A. Employment/Salary (full or part-time); Bionomics Ltd. **E. Poiraud:** A. Employment/Salary (full or part-time); Neurofit SAS. **B. Huyard:** A. Employment/Salary (full or part-time); Neurofit SAS. **C. Coles:** A. Employment/Salary (full or part-time); Bionomics Ltd. **Y. Kolev:** A. Employment/Salary (full or part-time); Bionomics Ltd. **P. Kolesik:** A. Employment/Salary (full or part-time); Bionomics Ltd. **S. Wagner:** A. Employment/Salary (full or part-time); Neurofit SAS. **E. Andriambeloson:** A. Employment/Salary (full or part-time); Neurofit SAS.
322.04	**F. Artigas:** 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; Spanish Ministry of Science and Innovation – DENDRIA contribution,. **A. Bortolozzi:** 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; Spanish Ministry of Science and Innovation – DENDRIA contribution,.
323.01	**S.M. Shadli:** A. Employment/Salary (full or part-time); University of Otago. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Department of Psychology, University of Otago. **P. Glue:** A. Employment/Salary (full or part-time); University of Otago. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Department

ABSTRACT NUMBER	STATEMENT
	of Psychology, University of Otago. **N. McNaughton:** A. Employment/Salary (full or part-time); University of Otago. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Department of Psychology, University of Otago.
323.06	**C.M. Butt:** A. Employment/Salary (full or part-time); DSM. **M.J. Weiser:** A. Employment/Salary (full or part-time); DSM. **K.M. Wynalda:** A. Employment/Salary (full or part-time); DSM. **M.H. Mohajeri:** A. Employment/Salary (full or part-time); DSM. **N. Salem:** A. Employment/Salary (full or part-time); DSM.
323.08	**T. Rantamäki:** 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; Hermo Pharma Ltd., Orion Pharma Ltd., Ono Pharmaceutical Co. Ltd. **E. Castrén:** 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; Ono Pharmaceuticals.
324.03	**E. Jerlhag:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Dr. Jerlhag has received financial support from the Novo Nordisk Foundation.
324.18	**H. Walter:** A. Employment/Salary (full or part-time); Klinik für Psychiatrie und Psychotherapie Charité-Universitätsmedizin Berlin. **T. Wüstenberg:** A. Employment/Salary (full or part-time); Klinik für Psychiatrie und Psychotherapie Charité-Universitätsmedizin Berlin. **F. Bermpohl:** A. Employment/Salary (full or part-time); Klinik für Psychiatrie und Psychotherapie Charité-Universitätsmedizin Berlin.
327.05	**D.H. Malin:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Acadia Pharmaceuticals. **J. Ma:** A. Employment/ Salary (full or part-time); Acadia Pharmaceuticals. **E.S. Burstein:** A. Employment/Salary (full or part-time); Acadia Pharmaceuticals.
327.22	**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.
332.07	**H. Kolster:** A. Employment/Salary (full or part-time); Windmiller Kolster Scientific, Fresno, CA, USA. **G.A. Orban:** 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; Telenet NV.
335.03	**H. Staecker:** 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 on https://clinicaltrials.gov/ct2/show/NCT02132130?term=CGF166&rank=1. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Research support from Novartis Inc and Quark Inc. F. Consulting Fees (e.g., advisory boards); Scientific Advisory Board MedEl Gmbh.
336.04	**J.M. Sprague:** 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; GlaxoSmithKline.
336.14	**B.A. Freeman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Complexa. **S.R. Woodcock:** F. Consulting Fees (e.g., advisory boards); Complexa and Nitromega.
336.16	**J.B. Turner:** A. Employment/Salary (full or part-time); Pfizer. **J. Miranda:** A. Employment/Salary (full or part-time); Pfizer. **P. Cox:** A. Employment/Salary (full or part-time); Pfizer. **H. Rees:** A. Employment/Salary (full or part-time);

ABSTRACT NUMBER	STATEMENT
	Pfizer. **C. West:** A. Employment/Salary (full or part-time); Pfizer. **N. Swain:** A. Employment/Salary (full or part-time); Pfizer. **D. Pryde:** A. Employment/Salary (full or part-time); Pfizer. **A. Gerlach:** A. Employment/Salary (full or part-time); Pfizer.
336.19	**M.J. Caterina:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Kao Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); UCSF, Merck. **T. Sakamoto:** A. Employment/Salary (full or part-time); Kao Corporation.
337.13	**S. Ambalayam:** A. Employment/Salary (full or part-time); Indian Council for Medical Research.
337.19	**H. Wei:** A. Employment/Salary (full or part-time); full time, Helsinki University. **A. Pertovaara:** A. Employment/Salary (full or part-time); full time, Helsinki University.
338.04	**S.M. Schabrun:** A. Employment/Salary (full or part-time); National Health and Medical Research Council.
345.06	**M.N. Hill:** F. Consulting Fees (e.g., advisory boards); Pfizer.
345.07	**T. Deak:** A. Employment/Salary (full or part-time); Behavioral Neuroscience Program, Dept. of Psychology, Binghamton University-SUNY, Binghamton, NY 13902-6000. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Janssen Pharmaceuticals, Neuroscience, 3210 Merryfield Row, San Diego, CA 92121. **E. Varlinskaya:** A. Employment/Salary (full or part-time); Behavioral Neuroscience Program, Dept. of Psychology, Binghamton University-SUNY, Binghamton, NY 13902-6000. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Janssen Pharmaceuticals, Neuroscience, 3210 Merryfield Row, San Diego, CA 92121. **E. Truxell:** A. Employment/Salary (full or part-time); Behavioral Neuroscience Program, Dept. of Psychology, Binghamton University-SUNY, Binghamton, NY 13902-6000. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Janssen Pharmaceuticals, Neuroscience, 3210 Merryfield Row, San Diego, CA 92121. **D. Lovelock:** A. Employment/Salary (full or part-time); Behavioral Neuroscience Program, Dept. of Psychology, Binghamton University-SUNY, Binghamton, NY 13902-6000. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Janssen Pharmaceuticals, Neuroscience, 3210 Merryfield Row, San Diego, CA 92121. **A. Gano:** A. Employment/Salary (full or part-time); Behavioral Neuroscience Program, Dept. of Psychology, Binghamton University-SUNY, Binghamton, NY 13902-6000. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Janssen Pharmaceuticals, Neuroscience, 3210 Merryfield Row, San Diego, CA 92121. **A. Bhattacharya:** A. Employment/Salary (full or part-time); Janssen Pharmaceuticals, Neuroscience, 3210 Merryfield Row, San Diego, CA 92121.
347.17	**D. Piomelli:** 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; received research funding from Thesan Pharmaceuticals, unrelated to this study. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder,

ABSTRACT NUMBER	STATEMENT
	excluding diversified mutual funds); has an ownership interest in Thesan Pharmaceuticals. F. Consulting Fees (e.g., advisory boards); received consulting fees from Thesan Pharmaceuticals.
348.09	**A.B. Lucion:** A. Employment/Salary (full or part-time); Federal University of Rio Grande do Sul. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Fundação de Amparo à Pesquisa do Estado do Rio Grande do Sul (FAPERGS), Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).
352.06	**S.H. Kim:** A. Employment/Salary (full or part-time); Full-time employment.
352.20	**R.C. Gentzel:** A. Employment/Salary (full or part-time); Merck Research Laboratories. **S. Lin:** A. Employment/Salary (full or part-time); Merck Research Laboratories. **T. Cash-Mason:** A. Employment/Salary (full or part-time); Merck Research Laboratories. **I. Petrescu:** A. Employment/Salary (full or part-time); Merck Research Laboratories. **N. Hatcher:** A. Employment/Salary (full or part-time); Merck Research Laboratories. **J.J. Renger:** A. Employment/Salary (full or part-time); Merck Research Laboratories. **J.C. Hershey:** A. Employment/Salary (full or part-time); Merck Research Laboratories.
353.04	**U. Yamamoto:** A. Employment/Salary (full or part-time); Doshisha University. **T. Hiroyasu:** A. Employment/Salary (full or part-time); Doshisha University.
353.24	**S. Kime:** A. Employment/Salary (full or part-time); ALTEN SA.
355.02	**J. Mishra:** A. Employment/Salary (full or part-time); Brain Plasticity Institute, PositScience. **M. Merzenich:** A. Employment/Salary (full or part-time); PositScience.
355.04	**J.D. Kean:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pharmalink Pty Ltd. **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; Principal Investigator.
355.10	**C.J. Duffy:** A. Employment/Salary (full or part-time); Cerebral Assessment Systems.
355.11	**Y. Takamura:** A. Employment/Salary (full or part-time); Department of Rehabilitation, Murata Hospital, Graduate School of Health Science, Kio University.
358.01	**L.M. Saksida:** F. Consulting Fees (e.g., advisory boards); Campden Instruments. Other; Synome. **T.J. Bussey:** F. Consulting Fees (e.g., advisory boards); Campden Instruments. Other; Synome. **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, GSK. F. Consulting Fees (e.g., advisory boards); Cambridge Cognition, Lilly, Lundbeck, Teva, Shire Pharmaceuticals, Merck Sharp and Dohme. Other; Editorial: Springer Verlag.
358.02	**L.M. Saksida:** F. Consulting Fees (e.g., advisory boards); Campden Instruments. Other; Synome. **T.J. Bussey:** F. Consulting Fees (e.g., advisory boards); Campden Instruments. Other; Synome. **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, GSK. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); ABT-594 generously provided by Abbvie. RO4938581 generously provided by Roche. F. Consulting Fees (e.g., advisory boards); Cambridge Cognition, Lilly, Lundbeck, Teva, Shire Pharmaceuticals, Merck Sharp and Dohme. Other; Editorial: Springer Verlag.
358.12	**M. Tamura:** A. Employment/Salary (full or part-time); Mitsubishi Tanabe Pharma Corporaton.

ABSTRACT NUMBER	STATEMENT
358.18	**L.M. Saksida:** F. Consulting Fees (e.g., advisory boards); Campden Instruments, Ltd. **T.J. Bussey:** F. Consulting Fees (e.g., advisory boards); Campden Instruments, Ltd.
358.19	**S.S. Bolkan:** A. Employment/Salary (full or part-time); Columbia University. **J.A. Gordon:** A. Employment/Salary (full or part-time); Columbia University.
359.01	**M.C. Sosthenes:** A. Employment/Salary (full or part-time); Universidade Federal do Pará.
359.02	**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 Nutrition. **E.R. Hankosky:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Abbott Nutrition. **L.A. Ruvola:** A. Employment/Salary (full or part-time); Abbott Nutrition. **L.K. Sherrill:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Abbott Nutrition. **L.R. Hammerslag:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Abbott Nutrition. **T. Kim:** A. Employment/Salary (full or part-time); Abbott Nutrition. **D.G. Kougias:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Abbott Nutrition. **J.M. Juraska:** 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 Nutrition.
359.03	**J.M. Juraska:** 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 Nutrition. **L.K. Sherrill:** Other; Abbott Nutrition. **L.A. Ruvola:** A. Employment/Salary (full or part-time); Abbott Nutrition. **N.M. Kofsky:** A. Employment/Salary (full or part-time); Abbott Nutrition. **E.R. Hankosky:** Other; Abbott Nutrition. **L.R. Hammerslag:** Other; Abbott Nutrition. **T. Kim:** A. Employment/Salary (full or part-time); Abbott Nutrition. **D.G. Kougias:** Other; Abbott Nutrition. **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 Nutrition.
360.08	**J.L. Kubie:** A. Employment/Salary (full or part-time); SUNY Downstate 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; NIH R21 NS072891. **A.A. Fenton:** A. Employment/Salary (full or part-time); NYU Center for Neural Science.
360.19	**H. Lipp:** F. Consulting Fees (e.g., advisory boards); Scientific advisor New Behavior AG, Switzerland.
362.18	**M. Hutchison:** A. Employment/Salary (full or part-time); National Institutes of Health. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cocaine provided by NIDA. **M.R. Lee:** A. Employment/Salary (full or part-time); National Institutes of Health. **W. Lu:** A. Employment/Salary (full or part-time); National Institutes of Health.
365.10	**T.C. Roeske:** A. Employment/Salary (full or part-time); CUNY Research Foundation / Hunter College. 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; 2010-2015 NSF, Behavioral systems, Collaborative Research: Development of song culture in zebra finches - vocal and sensory changes over generations. **J. Hyland Bruno:** A. Employment/Salary (full or part-time); CUNY Research Foundation / Hunter College. B. Contracted Research/Research Grant (principal

ABSTRACT NUMBER	STATEMENT
	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; 2010-2015 NSF, Behavioral systems, Collaborative Research: Development of song culture in zebra finches - vocal and sensory changes over generations. **K. Tokarev:** A. Employment/Salary (full or part-time); CUNY Research Foundation / Hunter College. 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; 2010-2015 NSF, Behavioral systems, Collaborative Research: Development of song culture in zebra finches - vocal and sensory changes over generations. **I. Ljubicic:** A. Employment/Salary (full or part-time); CUNY / Hunter College. **O. Tchernichovski:** A. Employment/Salary (full or part-time); CUNY Research Foundation / Hunter College. 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; 2010-2015 NSF, Behavioral systems, Collaborative Research: Development of song culture in zebra finches - vocal and sensory changes over generations., 2000-2019 R01, PHS DC04722-13 behavioral mechanisms of vocal development. Role: PI. Agency: NIDCD, 60% efforts.
366.11	**T.L. Mega:** A. Employment/Salary (full or part-time); Revalesio Corporation. **S.R. German:** A. Employment/ Salary (full or part-time); Revalesio Corporation.
366.12	**E. Olson:** A. Employment/Salary (full or part-time); LifeSensors, Inc. **M. Mason:** A. Employment/Salary (full or part-time); LifeSensors, Inc. **C. Loch:** A. Employment/ Salary (full or part-time); LifeSensors, Inc. **R. Murphy:** A. Employment/Salary (full or part-time); LifeSensors, Inc. **J. Strickler:** A. Employment/Salary (full or part-time); LifeSensors, Inc.
366.13	**S.P. Subramaniyan:** 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.
366.18	**A.M. Zaorski:** A. Employment/Salary (full or part-time); Rockland Immunochemicals, Inc. **D.P. Chimento:** A. Employment/Salary (full or part-time); Rockland Immunochemicals, Inc. **R. Yukhananov:** A. Employment/ Salary (full or part-time); Precision Biosystems.
366.20	**T.K. Kelly:** A. Employment/Salary (full or part-time); Active Motif. **L. Rajchel:** A. Employment/Salary (full or part-time); Active Motif. **J. Dabrowski:** A. Employment/Salary (full or part-time); Active Motif. **K. Naumann:** A. Employment/ Salary (full or part-time); Active Motif. **K. Hondorp:** A. Employment/Salary (full or part-time); Active Motif. **J. Samuelsson:** A. Employment/Salary (full or part-time); Active Motif.
366.21	**M. Khrestchatisky:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Vect-Horus Biotechnology company. F. Consulting Fees (e.g., advisory boards); Vect-Horus Biotechnology company. **M. Laurencin:** A. Employment/Salary (full or part-time); Vect-Horus. **M. Smirnova:** A. Employment/Salary (full or part-time); Vect-Horus.
366.23	**L. Sanchez-Chapul:** A. Employment/Salary (full or part-time); Instituto Nacional de Rehabilitación. **L.A. Ruano-Calderón:** A. Employment/Salary (full or part-time); Hospital General de Durango. **F. Fernández-Valverde:** A. Employment/Salary (full or part-time); Instituto Nacional de Neurología y Neurocirugia. **R. Coral-Vázquez:** A. Employment/Salary (full or part-time); Instituto Politécnico Nacional. **N. Wein:** A. Employment/ Salary (full or part-time); Nationwide Children s Hospital. **P. Mondragón-Terán:** A. Employment/Salary (full or part-time); CMN 20 de Noviembre, ISSSTE. **L.B. López-Hernández:** A. Employment/Salary (full or part-time); CMN 20 de Noviembre, ISSSTE. **B. Gómez-Díaz:** A. Employment/Salary (full or part-time); Instituto Nacional de Rehabilitación. **T. Gómez-Neri:** A. Employment/Salary (full or part-time); Instituto Politécnico Nacional. **J.L. Andrade-Cabrera:** A. Employment/Salary (full or part-time); Instituto Nacional de Rehabilitación. **O. Hernández-Hernández:** A. Employment/Salary (full or part-time); Instituto Nacional de Rehabilitación. **V. Pérez-de la Cruz:** A. Employment/Salary (full or part-time); Instituto Nacional de Neurología y Neurocirugia. **S.R. León-Hernández:** A. Employment/Salary (full or part-time); Instituto Nacional de Rehabilitación. **R. Paniagua-Pérez:** A. Employment/Salary (full or part-time); Instituto Nacional de Rehabilitación. **R. Escobar-Cedillo:** A. Employment/Salary (full or part-time); Instituto Nacional de Rehabilitación. **S. Vargas:** A. Employment/Salary (full or part-time); Instituto Nacional de Neurología y Neurocirugia. **C.J. Martínez-Canseco:** A. Employment/Salary (full or part-time); Instituto Nacional de Rehabilitación.
366.24	**N. Andronikou:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **X. Yu:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **S. Essex:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **Y. Geng:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **N. Roark:** A. Employment/ Salary (full or part-time); Thermo Fisher Scientific. **B. Hammer:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **D. Piper:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **N. Ravinder:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific. **X. de Mollerat du Jeu:** A. Employment/Salary (full or part-time); Thermo Fisher Scientific.
368.05	**E. Min:** A. Employment/Salary (full or part-time); Ulsan National Insititue of Science and Technology. **W. Jung:** A. Employment/Salary (full or part-time); Ulsan National Instisute of Science and technology.
368.19	**C. Zurhellen:** A. Employment/Salary (full or part-time); NeuroScience Associates.
368.21	**C. Segovia:** A. Employment/Salary (full or part-time); Neuroscience Associates. **A.P. Osmand:** A. Employment/ Salary (full or part-time); University of Tennessee.
368.30	**M. Semework:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Columbia University.
369.03	**M.H. Choi:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Jinga-hi, Inc. **M.M. De Shon:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Jinga-hi, Inc.
369.04	**K.P. Mangan:** A. Employment/Salary (full or part-time); Cellular Dynamics International.
370.18	**Y.A. Levine:** A. Employment/Salary (full or part-time); SetPoint Medical Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); SetPoint Medical Corporation. **J. Simon:** A. Employment/Salary (full or part-time); SetPoint Medical Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SetPoint Medical Corporation. **R. Zitnik:** A. Employment/Salary (full or part-time); SetPoint Medical Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SetPoint Medical Corporation. **M. Faltys:** A. Employment/Salary (full or part-time); SetPoint Medical Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SetPoint Medical Corporation.
372.23	**H.S. Bokil:** A. Employment/Salary (full or part-time); Boston Scientific. **D. Blum:** A. Employment/Salary (full or part-time); Boston Scientific. **K. Steinke:** A. Employment/ Salary (full or part-time); Boston Scientific. **M. Moffitt:** A. Employment/Salary (full or part-time); Boston Scientific. **C.**

ABSTRACT NUMBER	STATEMENT
	Butson: 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; Boston Scientific. **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; Boston Scientific.
382.12	**H. Okano:** A. Employment/Salary (full or part-time); M.S. and A.N. are employed by Takeda Pharmaceutical Company Limited. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; the Core Institutes for iPS Cell Research from the Ministry of Education, Culture, Sports, Science and Technology of Japan to H.O. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); None. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); None. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); H.O. has stock and stock option of SanBio, Inc. F. Consulting Fees (e.g., advisory boards); H.O. is a scientific consultant for SanBio, Inc., Eisai, Co., Ltd., and Daiichi Sankyo, Co., Ltd., S.Y. is a member without salary of the scientific advisory boards of iPierian, iPS Academia Japan, Megakaryon Corporation, and HEALIOS K. K. Japan.
385.06	**C.A. Lemere:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; GE Healthcare.
386.07	**S. Sardi:** A. Employment/Salary (full or part-time); Genzyme, a Sanofi Company. **C. Viel:** A. Employment/ Salary (full or part-time); Genzyme, a Sanofi Company. **J. Clarke:** A. Employment/Salary (full or part-time); Genzyme, a Sanofi Company. **M. Chan:** A. Employment/Salary (full or part-time); Genzyme, a Sanofi Company. **N. Panarello:** 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. Stanek:** 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. Shihabuddin:** A. Employment/Salary (full or part-time); Genzyme, a Sanofi Company.
388.05	**S. Srivastava:** A. Employment/Salary (full or part-time); Associate Professor, KNPG college, Gyanpur SRN Bhadohi , UP India. **S. Shrivastava:** A. Employment/Salary (full or part-time); Assistant Professor.
389.04	**R.E. Marc:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Robert E. Marc is a principal of Signature Immunologics, Inc., manufacturer of some reagents used in this work.
390.07	**A. Machado:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intelect Medical, ATI, Enspire, Cardionomics. F. Consulting Fees (e.g., advisory boards); Intelect Medical, Functional Neurostimulation, Deep Brain Innovations.
390.11	**A.V. Apkarian:** 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; IIT from Eli Lilly.

ABSTRACT NUMBER	STATEMENT
392.05	**S. Schock:** A. Employment/Salary (full or part-time); Research Associate, Children's Hospital of Eastern Ontario. **C. Thompson:** A. Employment/Salary (full or part-time); Scientist, Ottawa Hospital Research Institute. **A.M. Hakim:** A. Employment/Salary (full or part-time); Director, Neuroscience Research, Ottawa Hospital Research Institute. **H. Plamondon:** A. Employment/Salary (full or part-time); Associate Professors, University of Ottawa. 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; Natural Sciences and Engineering Research Council of Canada.
392.07	**M. Tarnopolsky:** A. Employment/Salary (full or part-time); Life Science Nutrition. 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; Genzyme. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Genzyme - speaker honoraria, Prevention Genetics - speaker honoraria. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Life Science Nutrition and Exerkine Corporation.
393.02	**F. Solzbacher:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Blackrock Microsystems.
393.07	**M. Borisov:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); E3 Neurotechnology. **T.J. Blanche:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); E3 Neurotechnology.
393.08	**S. Negi:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Blackrock Microsystems.
394.19	**H. Seo:** A. Employment/Salary (full or part-time); Kyungbook National University of medicine. **K. Lee:** A. Employment/Salary (full or part-time); Kyungbook National University.
395.04	**A. Clarke:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); A2 Corporation.
396.07	**M.D. Gershon:** 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 Pharmaceutical Co.
397.08&tab;	**The Disclosure Block has exceeded its maximum limit. Please call Tech support at (217) 398-1792 for more information.**
397.19	**A. Gramowski:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroProof GmbH. **K. Jügelt:** A. Employment/Salary (full or part-time); NeuroProof GmbH. **C. Ehnert:** A. Employment/ Salary (full or part-time); NeuroProof GmbH. **A. Pielka:** A. Employment/Salary (full or part-time); NeuroProof GmbH. **A. Podßun:** A. Employment/Salary (full or part-time); NeuroProof GmbH. **B.M. Bader:** A. Employment/Salary (full or part-time); NeuroProof GmbH. **O. Schroeder:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroProof GmbH.
397.20	**V.M. Lee:** A. Employment/Salary (full or part-time); STEMCELL Technologies. **C.K.H. Mak:** A. Employment/ Salary (full or part-time); STEMCELL Technologies. **S. Lloyd-Burton:** A. Employment/Salary (full or part-time); STEMCELL Technologies. **A.C. Eaves:** A. Employment/ Salary (full or part-time); STEMCELL Technologies.

ABSTRACT NUMBER	STATEMENT
	T.E. Thomas: A. Employment/Salary (full or part-time); STEMCELL Technologies. **S.A. Louis:** A. Employment/Salary (full or part-time); STEMCELL Technologies.
397.25	**A. Majumder:** A. Employment/Salary (full or part-time); ArunA Biomedical Inc. **S. Wallace:** A. Employment/Salary (full or part-time); Aruna Biomedical Inc. **S.L. Stice:** A. Employment/Salary (full or part-time); Aruna Biomedical Inc.
398.05	**P.A. Rhodes:** A. Employment/Salary (full or part-time); Evolved Machines.
398.06	**E. Bullmore:** Other; Brain Mapping Unit, Department of Psychiatry, University of Cambridge, Cambridge, UK, Clinical Unit, GlaxoSmith Kline, Addenbrooke's Centre for Clinical Investigations, Cambridge, UK.
398.14	**H. Cline:** A. Employment/Salary (full or part-time); The Scripps Research Institute.
398.23	**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; Currently receives investigator-initiated research support from Bristol-Myers Squibb and Pfizer. F. Consulting Fees (e.g., advisory boards); Consultant in the areas of target identification and validation and new compound development to Autifony, Bristol-Myers Squibb, Concert Pharmaceuticals, and Sunovion.
401.01	**E.D. Levin:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents. **A.H. Rezvani:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents. **Y. Liu:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents. **V.M. Yenugonda:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents. **M. Brown:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents. **Y. Xiao:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents. **K. Kellar:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents.
401.11	**J.D. Mikkelsen:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eli Lilly & Co. **R. Zwart:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **D. Ursu:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **G. Gilmour:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **E. Sher:** A. Employment/Salary (full or part-time); Eli Lilly & Co. **M.S. Thomsen:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Eli Lilly & Co.
401.14	**M.S. Thomsen:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); This study was partly funded by Eli Lilly and Company through the Lilly Research Award Program (LRAP).
401.21	**T.M. Gould:** 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; GM57481. **C.W. Kinter:** A. Employment/Salary (full or part-time); University of Florida. 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; GM57481. **N.A. Horenstein:** A. Employment/Salary (full or part-time); University of Florida. 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; GM57481. **R.L. Papke:** A. Employment/Salary (full or part-time); University of Florida. 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; GM57481.
401.28	**A.A. Pandya:** A. Employment/Salary (full or part-time); University of Alaska Fairbanks, Department of Biomedical Sciences, College of Rural and Community Development.
404.04	**R. Jeggo:** A. Employment/Salary (full or part-time); NeuroSolutions Ltd. **J. Walczak:** A. Employment/Salary (full or part-time); Cerebrasol Ltd. **A.D. Whyment:** A. Employment/Salary (full or part-time); NeuroSolutions Ltd. **I. Vereyken:** A. Employment/Salary (full or part-time); Crossbeta Biosciences. **A. Tepper:** A. Employment/Salary (full or part-time); Crossbeta Biosciences. **G. Scheefhals:** A. Employment/Salary (full or part-time); Crossbeta Biosciences. **D. Spanswick:** A. Employment/Salary (full or part-time); NeuroSolutions Ltd.
404.05	**Y. Dembitskaya:** 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; Supported by the Russian Federation governmental grant No. 11.G34.31.0012Neuron EraNet TargetECM., Supported by Neuron EraNet TargetECM. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Renato Frischknecht and Constanze Seidenbecher. **A. Semyanov:** 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; Supported by the Russian Federation governmental grant No. 11.G34.31.0012, Supported by Neuron EraNet TargetECM. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Renato Frischknecht and Constanze Seidenbecher.
404.06	**E. Hawken:** 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; Canadian Institute of Health Research. **E.C. Dumont:** 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; Canadian Institute of Health Research.
405.07	**J. Lee:** A. Employment/Salary (full or part-time); Georgetown University.
405.13	**K.S. Poksay:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); In-kind support (ELISA kits and antibody), Enzo Life Sciences. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); royalty, receipt of intellectual property rights, Enzo Life Sciences. **D.E. Bredesen:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); In-kind support (ELISA kits and antibody), Enzo Life Sciences. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); royalty, receipt of intellectual property rights, Enzo Life Sciences. **V. John:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); In-kind support (ELISA kits and antibody), Enzo Life Sciences. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); royalty, receipt of intellectual property rights, Enzo Life Sciences.
407.07	**J.A. Tzaferis:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **H.B. Oluoch:** A. Employment/Salary

ABSTRACT NUMBER	STATEMENT
	(full or part-time); Eli Lilly and Company. **M.M. Racke:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **J.T. Hole:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **F. Liu:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **R.B. DeMattos:** A. Employment/Salary (full or part-time); Eli Lilly and Company.
407.11	**J. Jerecic:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acumen Pharmaceuticals, Inc. **G.A. Krafft:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Acumen Pharmaceuticals, Inc.
408.04	**M. Beyna:** A. Employment/Salary (full or part-time); Pfizer, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc. **H.S. Xi:** A. Employment/Salary (full or part-time); Pfizer, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc. **R.Y. Yang:** A. Employment/Salary (full or part-time); Pfizer, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc. **E.K. Sylvain:** A. Employment/Salary (full or part-time); Pfizer, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc. **N. Pozdnyakov:** A. Employment/Salary (full or part-time); Pfizer, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc. **W.L. Blake:** A. Employment/Salary (full or part-time); Pfizer, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc. **G. Ramaswamy:** A. Employment/Salary (full or part-time); Pfizer, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer, Inc.
408.10	**S. Kumar:** A. Employment/Salary (full or part-time); Progenra Inc. **M. Eddins:** A. Employment/Salary (full or part-time); Progenra Inc. **J. Wu:** A. Employment/Salary (full or part-time); Progenra Inc. **J. LaRocque:** A. Employment/Salary (full or part-time); Progenra Inc. **S. Agarwal:** A. Employment/Salary (full or part-time); Progenra Inc. **J. Marblestone:** A. Employment/Salary (full or part-time); Progenra Inc. **M. Kodrasov:** A. Employment/Salary (full or part-time); Progenra Inc. **B. Nicholson:** A. Employment/Salary (full or part-time); Progenra Inc.
409.06	**C.M. Revankar:** A. Employment/Salary (full or part-time); ThermoFisher. **B.J. Hammer:** A. Employment/Salary (full or part-time); ThermoFisher. **K. Bi:** A. Employment/Salary (full or part-time); ThermoFisher. **S.B. Hermanson:** A. Employment/Salary (full or part-time); ThermoFisher. **D.V. Thompson:** A. Employment/Salary (full or part-time); ThermoFisher. **M.S. Piekarczyk:** A. Employment/Salary (full or part-time); ThermoFisher. **C.S. Lebakken:** A. Employment/Salary (full or part-time); ThermoFisher. **L.J. Reichling:** A. Employment/Salary (full or part-time); ThermoFisher. **T. Sampsell-Barron:** A. Employment/Salary (full or part-time); ThermoFisher. **K.W. Vogel:** A. Employment/Salary (full or part-time); ThermoFisher.
410.06	**M.J. Fell:** A. Employment/Salary (full or part-time); Merck. **C. Mirescu:** A. Employment/Salary (full or part-time); Merck. **X. Zhou:** A. Employment/Salary (full or part-time); Merck. **Y. Lin:** A. Employment/Salary (full or part-time); Merck. **Z. Yin:** A. Employment/Salary (full or part-time); Merck. **B. Cheewatrakoolpong:** A. Employment/Salary (full or part-time); Merck. **M. Smith:** A. Employment/Salary (full or part-time); Merck. **F. Poulet:** A. Employment/Salary (full or part-time); Merck. **C. Markgraf:** A. Employment/Salary (full or part-time); Merck. **L. Hyde:** A. Employment/Salary (full or part-time); Merck. **M. Ellis:** A. Employment/Salary (full or part-time); Merck. **D. DeMong:** A. Employment/Salary (full or part-time); Merck. **M. Miller:** A. Employment/Salary (full or part-time); Merck. **E. Parker:** A. Employment/Salary (full or part-time); Merck. **M. Kennedy:** A. Employment/Salary (full or part-time); Merck. **J. Morrow:** A. Employment/Salary (full or part-time); Merck.
411.01	**W.D. Hirst:** A. Employment/Salary (full or part-time); Pfizer. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pfizer. **S. Clark:** A. Employment/Salary (full or part-time); Amicus Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Amicus Therapeutics.
411.04	**B. Szoke:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. **W. Wrasidlo:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. F. Consulting Fees (e.g., advisory boards); Neuropore Therapies, Inc. **E. Stocking:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. **I. Tsigelny:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. F. Consulting Fees (e.g., advisory boards); Neuropore Therapies, Inc. **T.C. Schwartz:** 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; Neuropore Therapies, Inc. **R. Konrat:** 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; Neuropore Therapies, Inc. **A.D. Paulino:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. **D.L. Price:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. **S. Winter:** A. Employment/Salary (full or part-time); EVER Neuro Pharma. **E. Masliah:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. F. Consulting Fees (e.g., advisory boards); Neuropore Therapies, Inc. **D. Bonhaus:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. **D. Meier:** A. Employment/Salary (full or part-time); EVER Neuro Pharma. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc, EVER Neuro Pharma.
411.05	**E.M. Rockenstein:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies. F. Consulting Fees (e.g., advisory boards); Neuropore Therapies. **D.L. Price:** A. Employment/Salary (full or part-time); Neuropore Therapies. **D. Bonhaus:** A. Employment/Salary (full or part-time); Neuropore Therapies. **E. Masliah:** 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; Neuropore Therapies.

ABSTRACT NUMBER	STATEMENT
	E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies.
411.06	**M.A. Koike:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. **D.L. Price:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. **B.M. White:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. **E. Rockenstein:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies Inc. **W. Wrasidlo:** 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; Neuropore Therapies Inc. **I. Tsigelny:** 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; Neuropore Therapies Inc. **D. Meier:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies Inc. **E. Masliah:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies Inc. **D.W. Bonhaus:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies Inc.
411.07	**D.L. Price:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. **E.M. Rockenstein:** F. Consulting Fees (e.g., advisory boards); Neuropore Therapies, Inc. **W. Wrasidlo:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. **E. Masliah:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. **D.W. Bonhaus:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc. **D.H. Meier:** A. Employment/Salary (full or part-time); Neuropore Therapies, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuropore Therapies, Inc.
411.11	**M. Ingelsson:** F. Consulting Fees (e.g., advisory boards); BioArctic Neuroscience AB. **F. Eriksson:** A. Employment/Salary (full or part-time); BioArctic Neuroscience AB. **E. Nordström:** A. Employment/Salary (full or part-time); BioArctic Neuroscience AB. **C. Möller:** A. Employment/Salary (full or part-time); BioArctic Neuroscience AB. **L. Lannfelt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BioArctic Neuroscience AB.
412.03	**K. Baker:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); St. Jude Medical.
412.09	**C.C. McIntyre:** F. Consulting Fees (e.g., advisory boards); Boston Scientific Neuromodulation.
412.13	**R.J. DiTota:** A. Employment/Salary (full or part-time); Medtronic.
412.15	**Y. Duchin:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Surgical Information Sciences, Inc. **G. Sapiro:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Surgical Information Sciences, Inc. **N. Harel:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Surgical Information Sciences, Inc. **C.C. McIntyre:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Surgical Information Sciences, Inc. F. Consulting Fees (e.g., advisory boards); Boston Scientific Neuromodulation, Corp.
412.16	**J. Henderson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intelect Medical, Nevro Corp. F. Consulting Fees (e.g., advisory boards); Intelect Medical, Nevro Corp.
412.17	**J. Henderson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Nevro Corp, Intelect Medical. F. Consulting Fees (e.g., advisory boards); Nevro Corp, Intelect Medical.
412.19	**C.G. van Horne:** Other; Educational support from Medtronic. **G.A. Gerhardt:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Medtronic and Eli Lilly.
412.20	**G.A. Gerhardt:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Medtronic and Eli Lilly &Co. **C.G. van Horne:** Other; Medtronic-Educational Support.
412.21	**R.S. Raike:** A. Employment/Salary (full or part-time); Medtronic Neuromodulation. **Y. Zhao:** A. Employment/Salary (full or part-time); Medtronic, Neuromodulation. **L. Lentz:** A. Employment/Salary (full or part-time); Medtronic, Neuromodulation. **W. Schindeldecker:** A. Employment/Salary (full or part-time); Medtronic, Neuromodulation. **M. Kelly:** A. Employment/Salary (full or part-time); Medtronic, Neuromodulation. **D.E. Nelson:** A. Employment/Salary (full or part-time); Medtronic, Neuromodulation.
414.14	**D.T. Brocker:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inventors on licensed patents. Equity position in Deep Brain Innovations, LLC. **W.M. Grill:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inventors on licensed patents. Equity position in Deep Brain Innovations, LLC.
414.20	**N.C. Swann:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of California, San Francisco. **C. De Hemptinne:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of California, San Francisco. **J. Ostrem:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of California, San Francisco. **P. Starr:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); University of California, San Francisco.
415.01	**P. Kulkarni:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging. **S. Toddes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Animal Imaging Research. **M. Nedelman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/

ABSTRACT NUMBER	STATEMENT
	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.
415.02	**E.V. Wancewicz:** A. Employment/Salary (full or part-time); Isis Pharmaceuticals. **G. Hung:** A. Employment/Salary (full or part-time); Isis Pharmaceuticals. **C. Mazur:** A. Employment/Salary (full or part-time); Isis Pharmaceuticals. **F. Bennett:** A. Employment/Salary (full or part-time); Isis Pharmaceuticals.
415.06	**M.E. Levin:** A. Employment/Salary (full or part-time); Galenea Corp. **K.A. Richardson:** A. Employment/Salary (full or part-time); Galenea Corp. **B. Buran:** A. Employment/Salary (full or part-time); Galenea Corp. **E.D. Buerger:** A. Employment/Salary (full or part-time); Galenea Corp. **B.K. Eschle:** A. Employment/Salary (full or part-time); Galenea Corp. **R. Lee:** A. Employment/Salary (full or part-time); CHDI Foundation. **J.K.T. Wang:** A. Employment/Salary (full or part-time); CHDI Foundation. **D.J. Gerber:** A. Employment/Salary (full or part-time); Galenea Corp.
415.20	**P. Stolyar:** A. Employment/Salary (full or part-time); Pfizer Inc.
417.27	**N.N. Singh:** A. Employment/Salary (full or part-time); Iowa State University, National Institutes of Health. 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; Sarepta Therapeutics. **R.N. Singh:** A. Employment/Salary (full or part-time); Iowa State University, National Institutes of Health. 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; Sarepta Therapeutics.
418.01	**K.S. Poksay:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); In-kind support (ELISA kits and antibody). E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Reception of royalties, share intellectual property/patent rights/protection. **V. John:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); In-kind support (ELISA kits and antibody). E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Reception of royalties, share intellectual property/patent rights/protection. **P.A. Caviedes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); P.C. has patent protection for the CNh and CTb lines.
418.04	**R. Caviedes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent protection. **P. Caviedes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent protection.
418.08	**P. Caviedes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent protection for the CNh and CTb lines.
418.12	**R.H. Reeves:** 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; Hoffman LaRoche.
419.08	**R. Malladi:** Other; ECE, Rice University.
420.12	**E. Jeong:** A. Employment/Salary (full or part-time); BK21 program.
421.12	**A.A. Korgaonkar:** 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; RE Foundation, F.M. Kirby Foundation, NJCBIR 09.003-BIR1 and NJCBIR CBIR11PJT003 to V.S.
422.30	**M. Fehlings:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Depuy Spine.
423.09	**M. Mullan:** A. Employment/Salary (full or part-time); Rock Creek Pharmaceuticals, Sarasota, Florida, USA.
424.06	**V.L. Reinhart:** A. Employment/Salary (full or part-time); Pfizer Inc.
425.01	**C. Sanchez:** A. Employment/Salary (full or part-time); Lundbeck Research USA, Inc.
425.04	**W.A. Eckert:** A. Employment/Salary (full or part-time); Janssen Research & Development, L.L.C. **J.R. Shoblock:** A. Employment/Salary (full or part-time); Janssen Research & Development, L.L.C. **J.E. McDuffie:** A. Employment/Salary (full or part-time); Janssen Research & Development, L.L.C. **B.P. Scott:** A. Employment/Salary (full or part-time); Janssen Research & Development, L.L.C. **P. Bonaventure:** A. Employment/Salary (full or part-time); Janssen Research & Development, L.L.C. **M.A. Letavic:** A. Employment/Salary (full or part-time); Janssen Research & Development, L.L.C. **J. Vegas:** A. Employment/Salary (full or part-time); Janssen Research & Development, L.L.C. **T. Crowley:** A. Employment/Salary (full or part-time); Janssen Research & Development, L.L.C. **X. Jiang:** A. Employment/Salary (full or part-time); Janssen Research & Development, L.L.C. **P. Zannikos:** A. Employment/Salary (full or part-time); Janssen Research & Development, L.L.C. **J.B. Singh:** 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.
425.09	**K. Fukumoto:** A. Employment/Salary (full or part-time); Taisho Pharmaceutical Co., Ltd. **M. Iijima:** A. Employment/Salary (full or part-time); Taisho Pharmaceutical Co., Ltd. **S. Chaki:** A. Employment/Salary (full or part-time); Taisho Pharmaceutical Co., Ltd.
426.03	**B. Bang-Andersen:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **C. Bundgaard:** A. Employment/Salary (full or part-time); H. Lundbeck A/S. **L. Farde:** A. Employment/Salary (full or part-time); AstraZeneca Pharmaceuticals.
426.09	**D.F. Colvard:** F. Consulting Fees (e.g., advisory boards); Wake Research Associates, Raleigh NC; I have been a psychiatric consultant in clinical drug trials involving antidepressant medications. Other; I host the website www.DivePsych.com which provides evidence-based information on stress, anxiety and panic for scuba divers and speak and write on psychiatric aspects of recreational and commercial s, scuba diving internationally. Occassionally, i am compensated for the articles and presentations.
426.10	**S. Meltzer-Brody:** 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; Astra Zeneca. **S. Woolson:** Other; CeNeRx, Janssen Pharmaceuticals. **R.M. Hamer:** F. Consulting Fees (e.g., advisory boards); Abbott, Allergan, Cenerx, Columbia University, Endo, Lilly, Novartis, Pfizer, Roche, Wyeth. Other; Lundbeck, Sun, Caraco, Forest, Teva, Barr, Mylan, Eurand, Cephalon, Anesta, Marial. **R.C. Knickmeyer:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Pfizer.
428.05	**J.A. Engel:** F. Consulting Fees (e.g., advisory boards); Pfizer AB Sweden, Lundbeck AB Sweden, Actavis AB Sweden.
428.26	**D.J. Woodward:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent

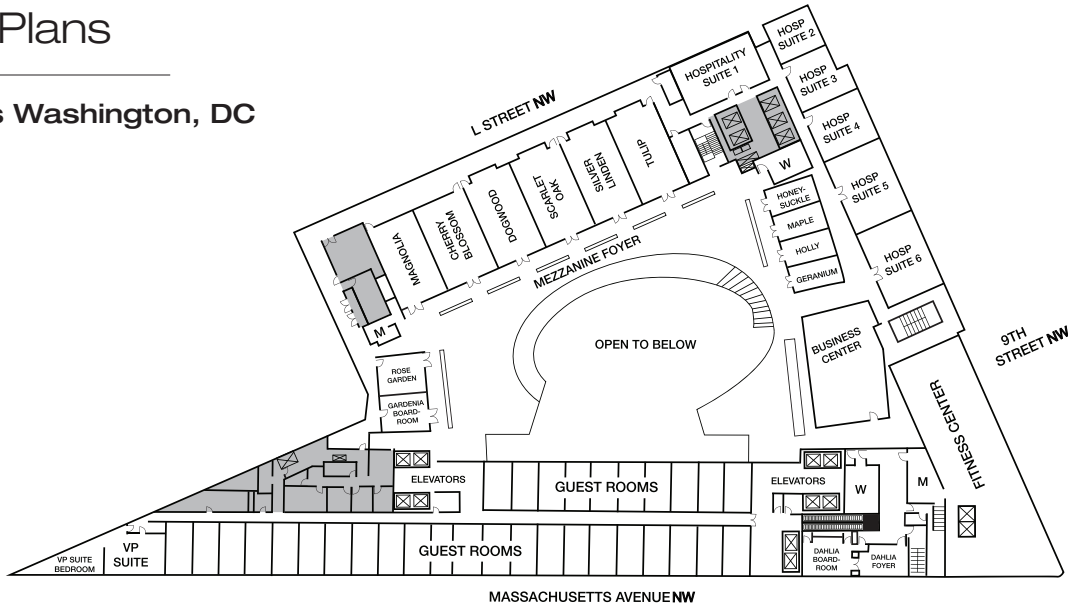
ABSTRACT NUMBER	STATEMENT
	holder, excluding diversified mutual funds); NeuroPlex, Inc.
429.07	**K. Lutfy:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Project PI. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Receipt of drugs.
429.10	**E.T. Bullmore:** A. Employment/Salary (full or part-time); GlaxoSmithKline R&D. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); GlaxoSmithKline R&D. **B.J. Everitt:** 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; GlaxoSmithKline R&D.
430.22	**K.A. Hymel:** 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 Institute on Drug Abuse. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); State of Florida, Executive Office of the Governor's Office of Tourism, Trade, and Economic Development.
433.03	**H. Zhong:** A. Employment/Salary (full or part-time); U-Pharm Laboratories LLC.
433.21	**K. Jones:** A. Employment/Salary (full or part-time); Lundbeck Research USA Inc. **J. Sprouse:** A. Employment/Salary (full or part-time); Cyanaptic LLC.
433.22	**A. Roorda:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent.
434.01	**J.C. Talpos:** A. Employment/Salary (full or part-time); Janssen Research and Development. **J. Riordan:** A. Employment/Salary (full or part-time); Janssen Research & Development. **J. Olley:** A. Employment/Salary (full or part-time); Janssen Research & Development. **J. Waddell:** A. Employment/Salary (full or part-time); Janssen Pharmaceutica NV. **T. Steckler:** A. Employment/Salary (full or part-time); Janssen Research and Development.
436.06	**R. Ellison:** A. Employment/Salary (full or part-time); Neural Engineering Laboratory, Biomedical Research Center - West Virginia University.
437.11	**S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BKIN Technologies.
437.21	**D.T. Bundy:** F. Consulting Fees (e.g., advisory boards); Neurolutions. **E.C. Leuthardt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurolutions.
440.01	**R. T. Narayanan:** A. Employment/Salary (full or part-time); Post-Doctoral Fellow.
440.08	**A. Tsimounis:** A. Employment/Salary (full or part-time); Assistant Professor Queensborough Community College. **J.C. Brumberg:** A. Employment/Salary (full or part-time); Professor Queens College and the The Graduate Center, CUNY.
441.07	**A.A. Bajnath:** A. Employment/Salary (full or part-time); Graduate Assistant, CUNY. **J.C. Brumberg:** A. Employment/Salary (full or part-time); Professor, Queens College.
442.26	**J.W. Mink:** F. Consulting Fees (e.g., advisory boards); Medtronic, Inc, Edison Pharmaceuticals, Inc.
443.15	**K. Kitajo:** Other; Toyota Motor Corporation Grant.
445.07	**T. Kim:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents Pending. **S.F. Giszter:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents pending.
445.09	**T. Tsujimura:** A. Employment/Salary (full or part-time); Dainippon Sumitomo Pharma Co., Ltd.Dai.
448.07	**B. Dominguez Mancera:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); CONACYT CB 169861. **M. Barrientos Morales:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); CONACYT CB 169861.
448.08	**M. Barrientos:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Conacyt CB 169861.
451.15	**M. Yoshida:** 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; H25-KAGAKU-IPPANN-003, Research on Risk of Chemical Substances, Health and Labour Sciences Research Grants, Ministry of Health , Labour and Welfare, Japan. **M. Kawaguchi:** 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; H25-KAGAKU-IPPANN-003, Research on Risk of Chemical Substances, Health and Labour Sciences Research Grants, Ministry of Health , Labour and Welfare, Japan.
451.26	**X. Chu:** A. Employment/Salary (full or part-time); University of Tromsø. **A. Ågmo:** A. Employment/Salary (full or part-time); University of Tromsø.
452.03	**C.D. Foradori:** 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; Syngenta Crop Protection LLC. **K. Yi:** A. Employment/Salary (full or part-time); Syngenta Crop Protection LLC. **C.B. Breckenridge:** A. Employment/Salary (full or part-time); Syngenta Crop Protection LLC. **R.J. Handa:** 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; Syngenta Crop Protection LLC.
460.15	**J.S. Ellis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); co-author has an intellectual property patent on scopolamine. **C.A. Zarate:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent pending on the use of ketamine for depression. **M.L. Furey:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent pending on the use of scopolamine for depression.
460.28	**S. Lee:** A. Employment/Salary (full or part-time); Kimberly-Clark Coporation. **W. Sohn:** A. Employment/Salary (full or part-time); Kimberly-Clark Corporation. **H. Kim:** 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; Kimberly-Clark Worldwide, Inc.
461.09	**K. McCullough:** A. Employment/Salary (full or part-time); Emory University. **D.C. Chio:** A. Employment/Salary (full or part-time); Emory University. **K.J. Ressler:** A. Employment/Salary (full or part-time); Emory University.
463.20	**M.J. Schnitzer:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Mark J. Schnitzer is a co-founder of and scientific consultant to Inscopix Inc., the company that manufacturers the integrated microscope.

ABSTRACT NUMBER	STATEMENT
463.23	**Y. Ziv:** F. Consulting Fees (e.g., advisory boards); Inscopix, Inc. **M.J. Schnitzer:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inscopix, Inc. F. Consulting Fees (e.g., advisory boards); Inscopix, Inc.
464.24	**G. Meredith:** A. Employment/Salary (full or part-time); ThermoFisher. **Y. Sun:** A. Employment/Salary (full or part-time); ThermoFisher. **D. Dhingra:** A. Employment/Salary (full or part-time); ThermoFisher.
466.05	**J.J. Graboski:** A. Employment/Salary (full or part-time); Center for Integrative Neuroscience University of Tuebingen, Germany, BCCN and Synergy Cluster, Ludwig-Maximilians Universität München, Germany. **E. Resnik:** A. Employment/Salary (full or part-time); Center for Integrative Neuroscience, University of Tuebingen, Germany, BCCN and Synergy Cluster, Ludwig-Maximilians Universität München, Germany.
466.18	**B.O. Watson:** Other; Some research funding via the American Psyciatric Association-Eli Lilly Psychiatric Research Fellowship. **J.P. Greene:** A. Employment/ Salary (full or part-time); Slarary partially via the American Psyciatric Association-Eli Lilly Psychiatric Research Fellowship.
466.23	**J.P. Greene:** A. Employment/Salary (full or part-time); Salary partially paid by American Psychiatric Association-Lilly Research Fellowship. **B.O. Watson:** Other; Research partially paid by American Psychiatric Association-Lilly Research Fellowship.
467.01	**B.P. Godsil:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Institut de Recherche, Servier provided grant and material support for this project. **P. Delagrange:** A. Employment/Salary (full or part-time); Institut de Recherche, Servier. **M. Spedding:** A. Employment/Salary (full or part-time); Formerly employed the IRS. **T.M. Jay:** 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; Received grants from IRS.
467.03	**S.M. Strittmatter:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-founder of Axerion Therapeutics seeking to develop PrP and NgR therapies.
467.25	**M.J. Schnitzer:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Mark J. Schnitzer is a co-founder of and scientific consultant to Inscopix Inc., the company that manufacturers the integrated microscope.
467.27	**M. Hori:** A. Employment/Salary (full or part-time); Foundation for Advancement of International Science. **K. Yamada:** A. Employment/Salary (full or part-time); University of Tsukuba. **J. Ohnishi:** A. Employment/Salary (full or part-time); Tokyo Kasei University. **K. Murakami:** A. Employment/Salary (full or part-time); Foundation For Advancement of International Science. **Y. Ichitani:** A. Employment/Salary (full or part-time); University of Tsukuba.
469.13	**J.D. Toot:** A. Employment/Salary (full or part-time); WIL Research. **T. Pringle:** A. Employment/Salary (full or part-time); WIL Research. **M. Bennett:** A. Employment/ Salary (full or part-time); WIL Research. **M. Hackman:** A. Employment/Salary (full or part-time); WIL Research. **K. Landis:** A. Employment/Salary (full or part-time); WIL Research. **P. Atterson:** A. Employment/Salary (full or part-time); WIL Research.
470.04	**D.M. Devilbiss:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); NexStep Biomarkers, LLC., Cerora, Inc.
470.13	**L. Clark:** F. Consulting Fees (e.g., advisory boards); Cambridge Cognition.

Hotel Floor Plans

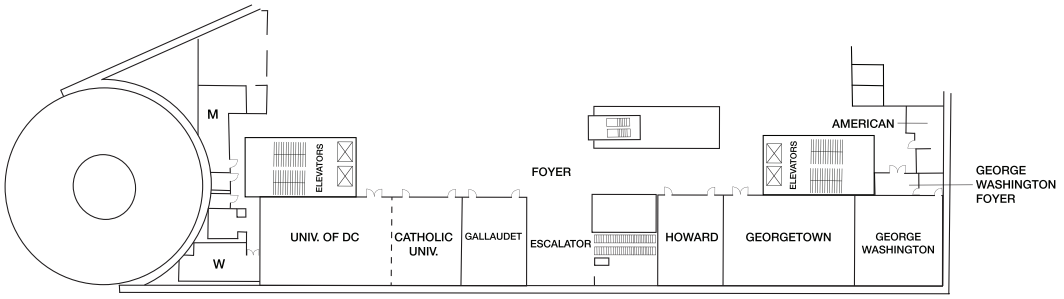
Marriott Marquis Washington, DC

Mezzanine Level



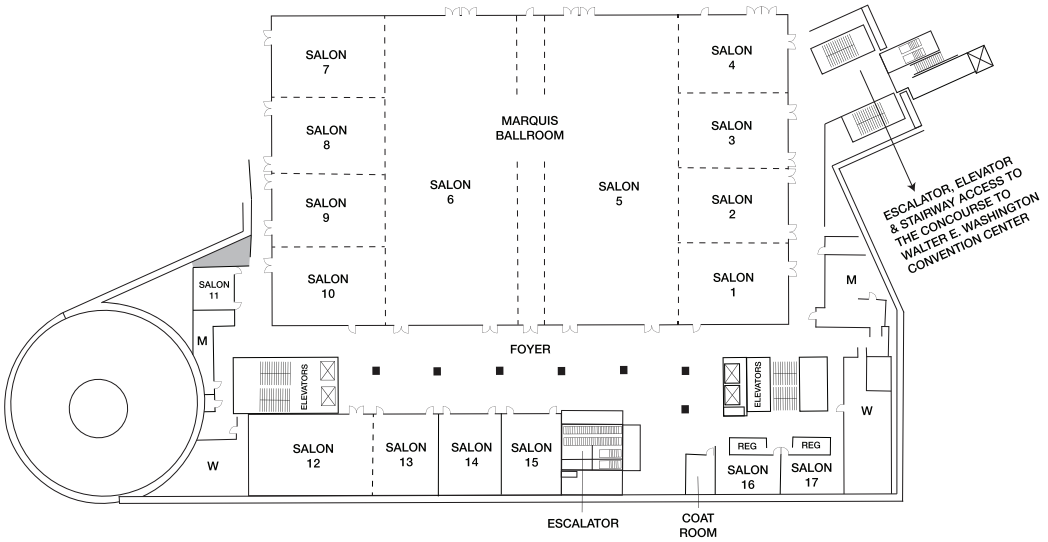
Marriott Marquis Washington, DC

Meeting Level 1



Marriott Marquis Washington, DC

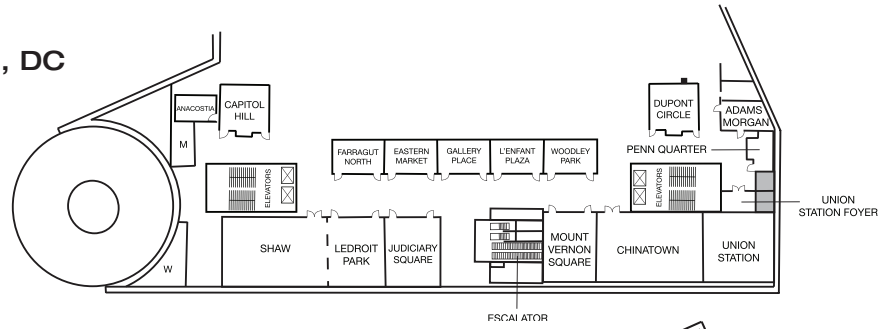
Meeting Level 2



Hotel Floor Plans

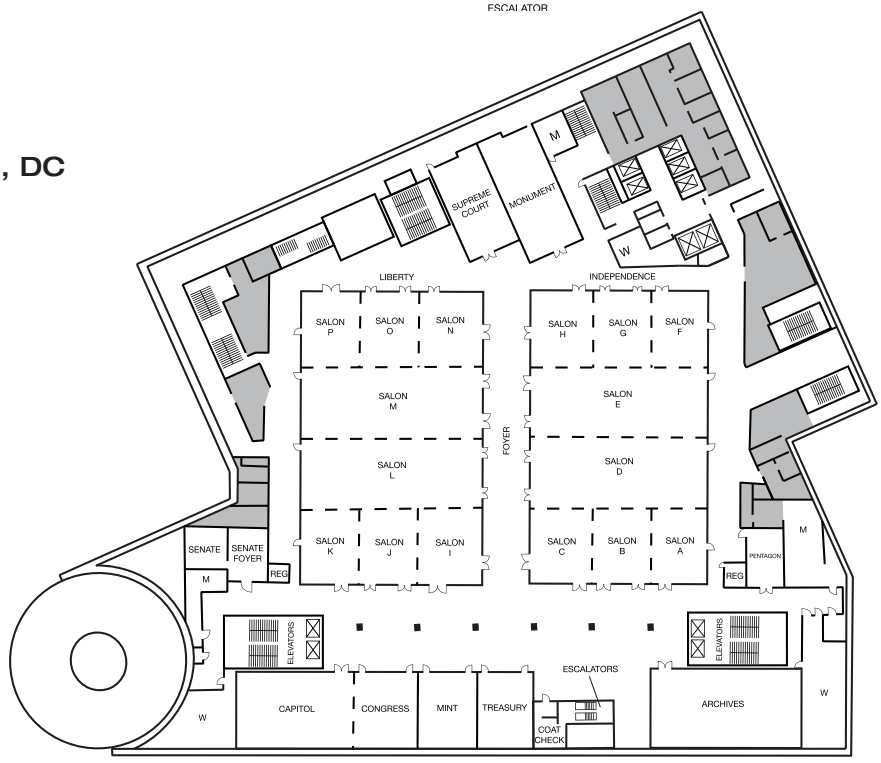
Marriott Marquis Washington, DC

Meeting Level 3



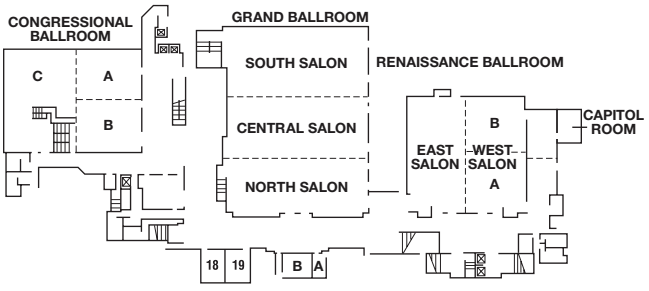
Marriott Marquis Washington, DC

Meeting Level 4



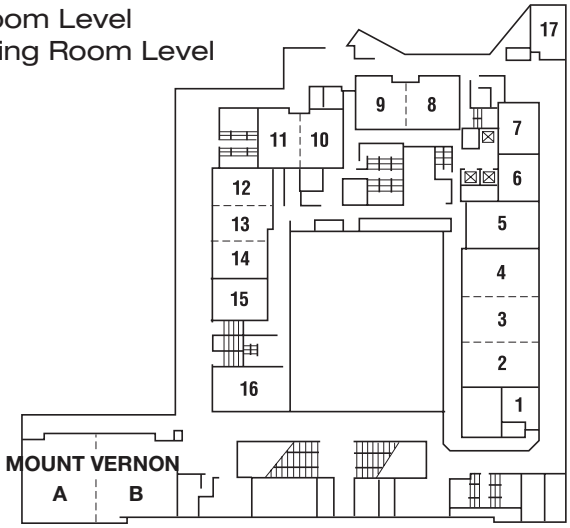
Renaissance Washington, DC Downtown Hotel

Ballroom Level



Renaissance Washington, DC Downtown Hotel

Ballroom Level
Meeting Room Level

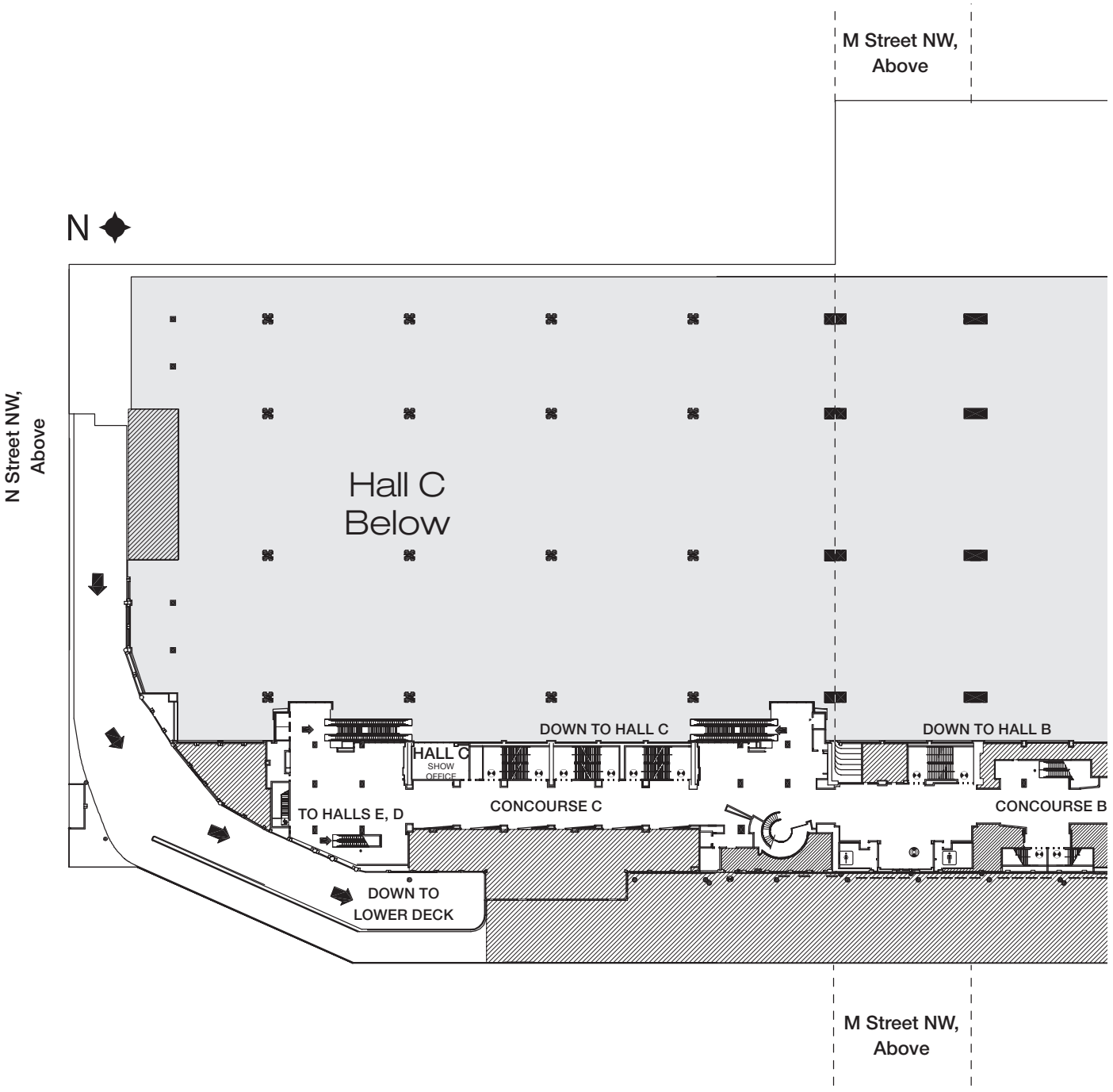


Convention Center Floor Plans

Concourse Level

Access to Exhibit Halls A–C

Show Offices A–C

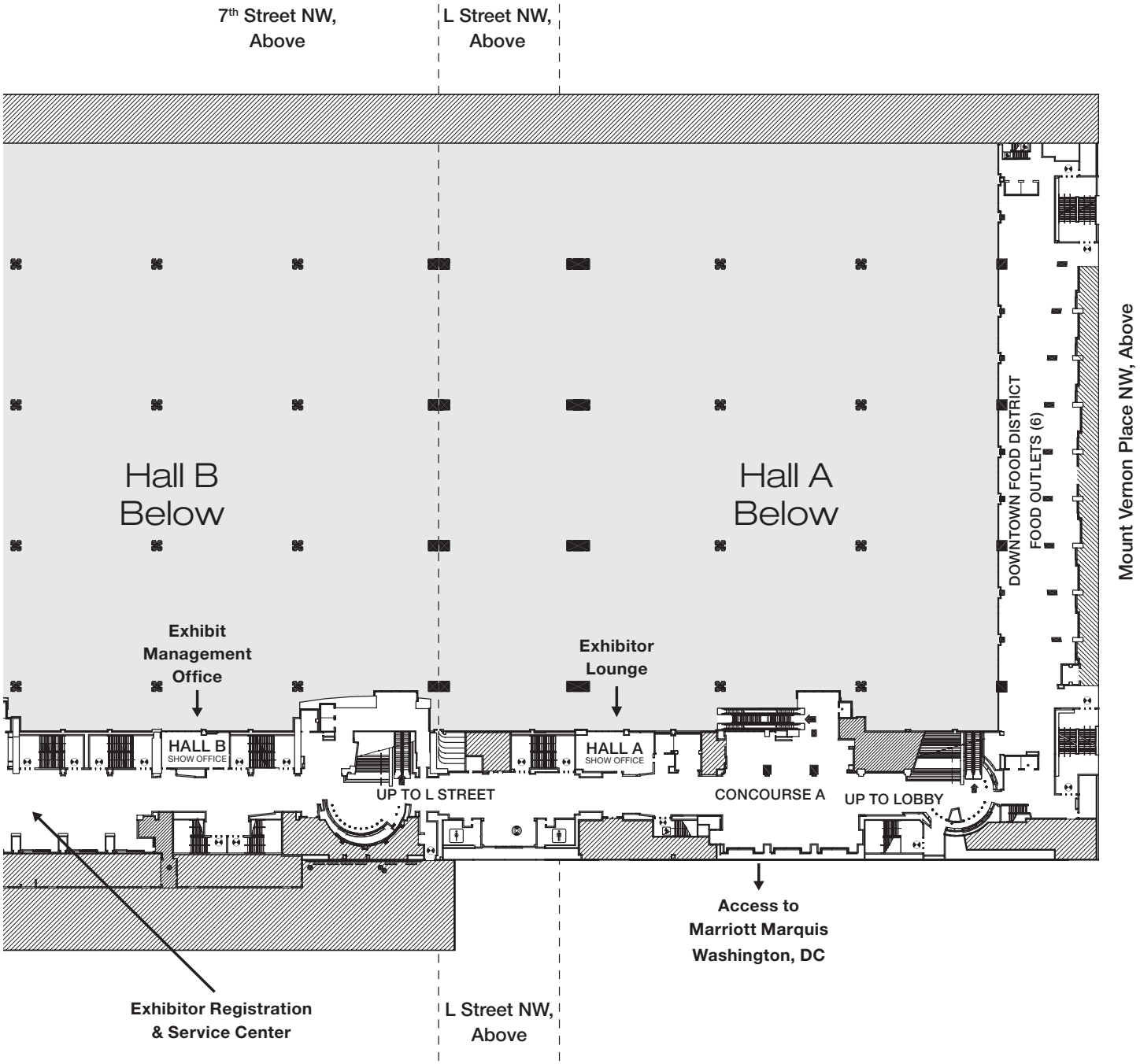


Convention Center Floor Plans

Concourse Level

Access to Exhibit Halls A–C

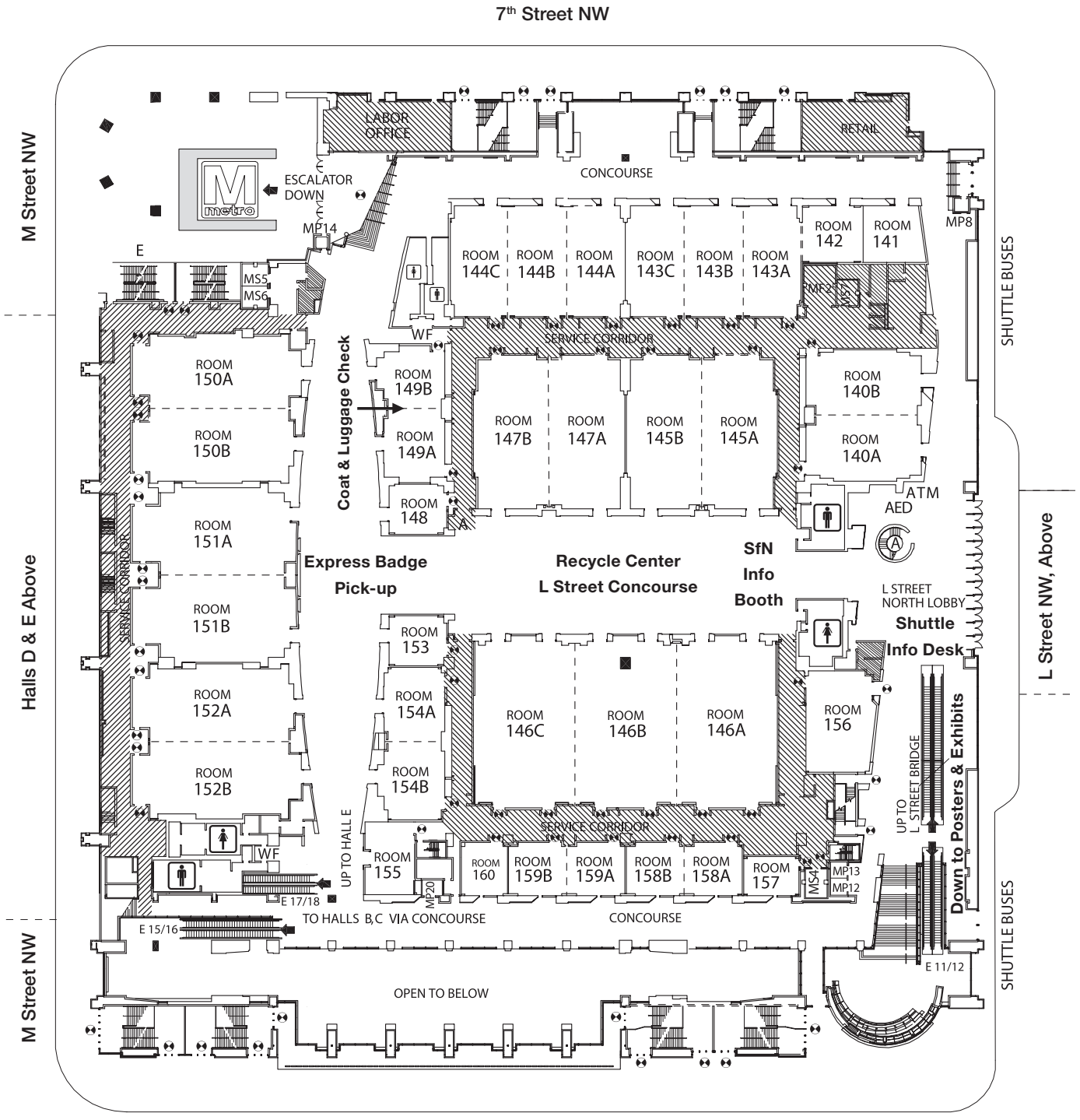
Show Offices A–C



Convention Center Floor Plans

Lobby Level/Level 1

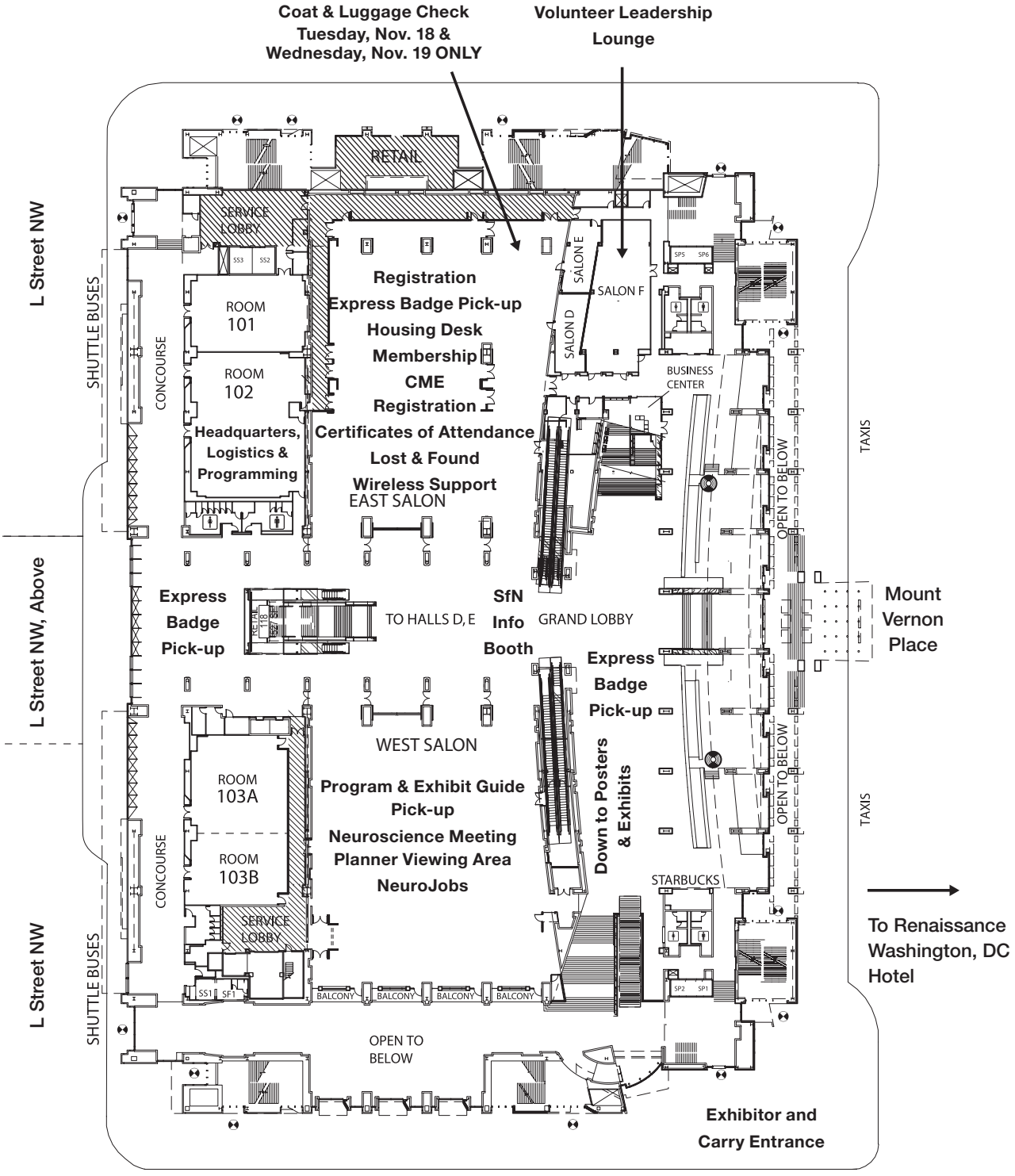
Meeting Rooms 101-103 & 150-160



Convention Center Floor Plans

Lobby Level/Level 1

Meeting Rooms 101-103 & 150-160

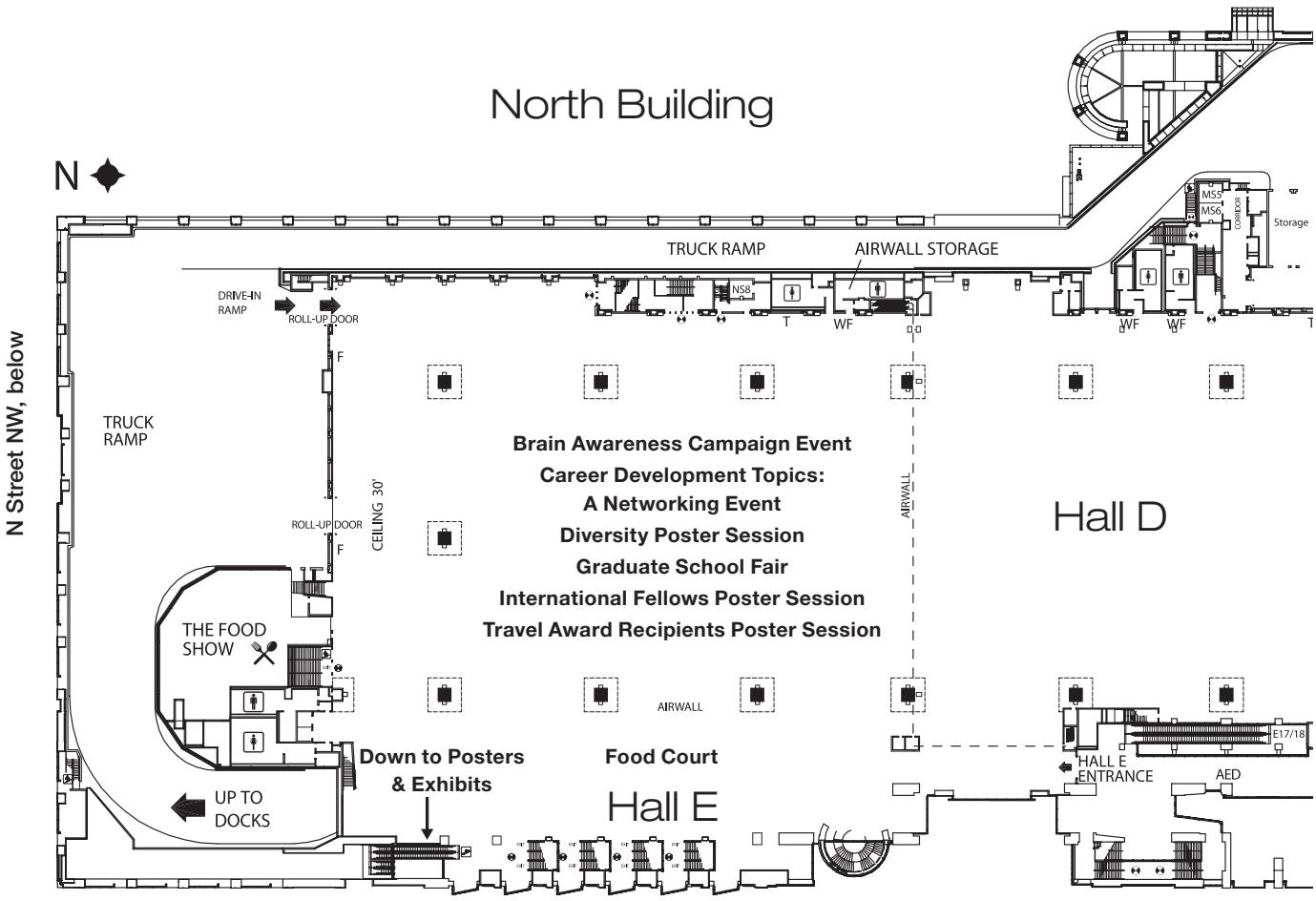


Convention Center Floor Plans

Level 2

Halls D &E

Meeting Rooms 201-210

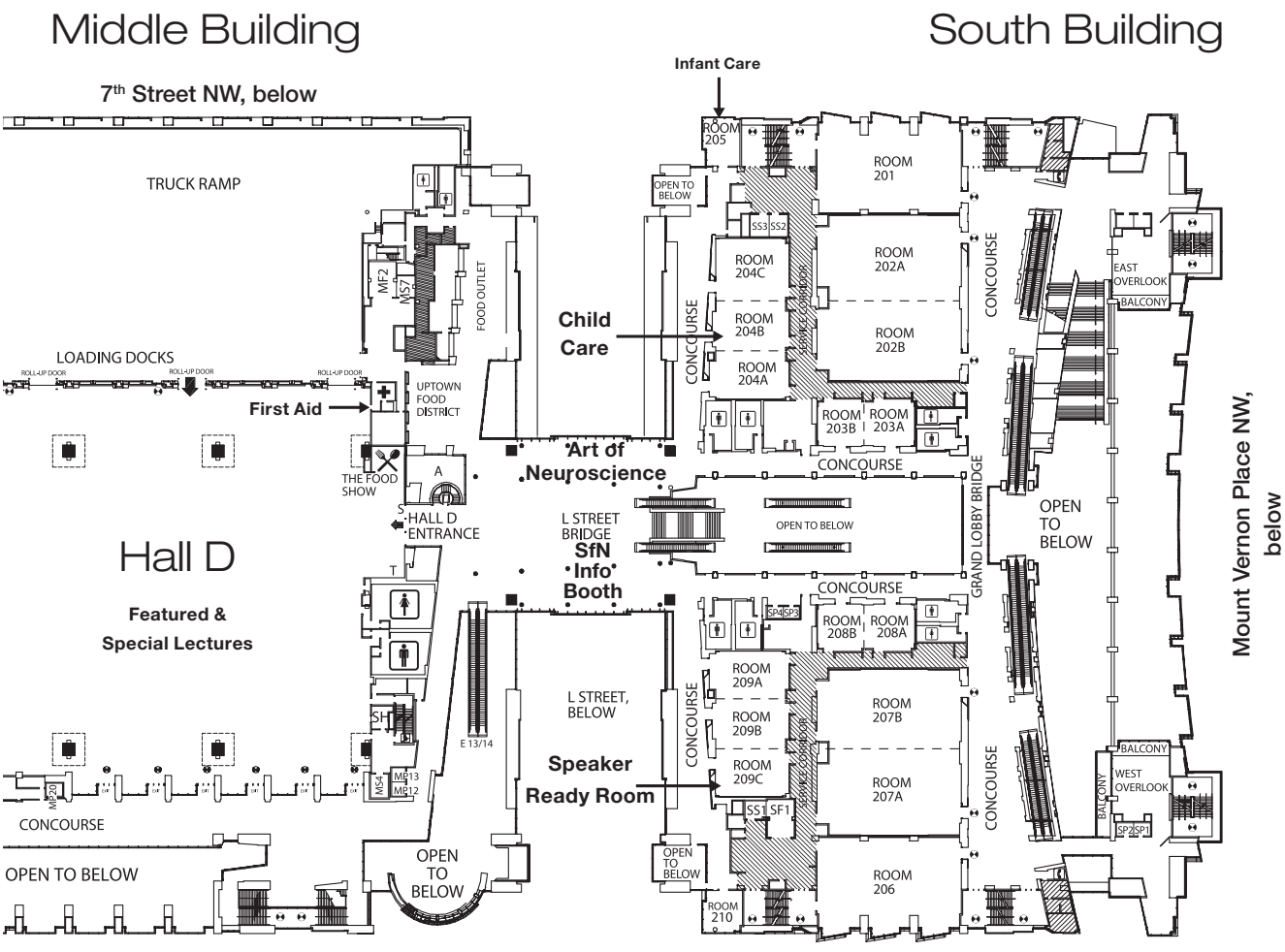


Convention Center Floor Plans

Level 2

Halls D &E

Meeting Rooms 201-210

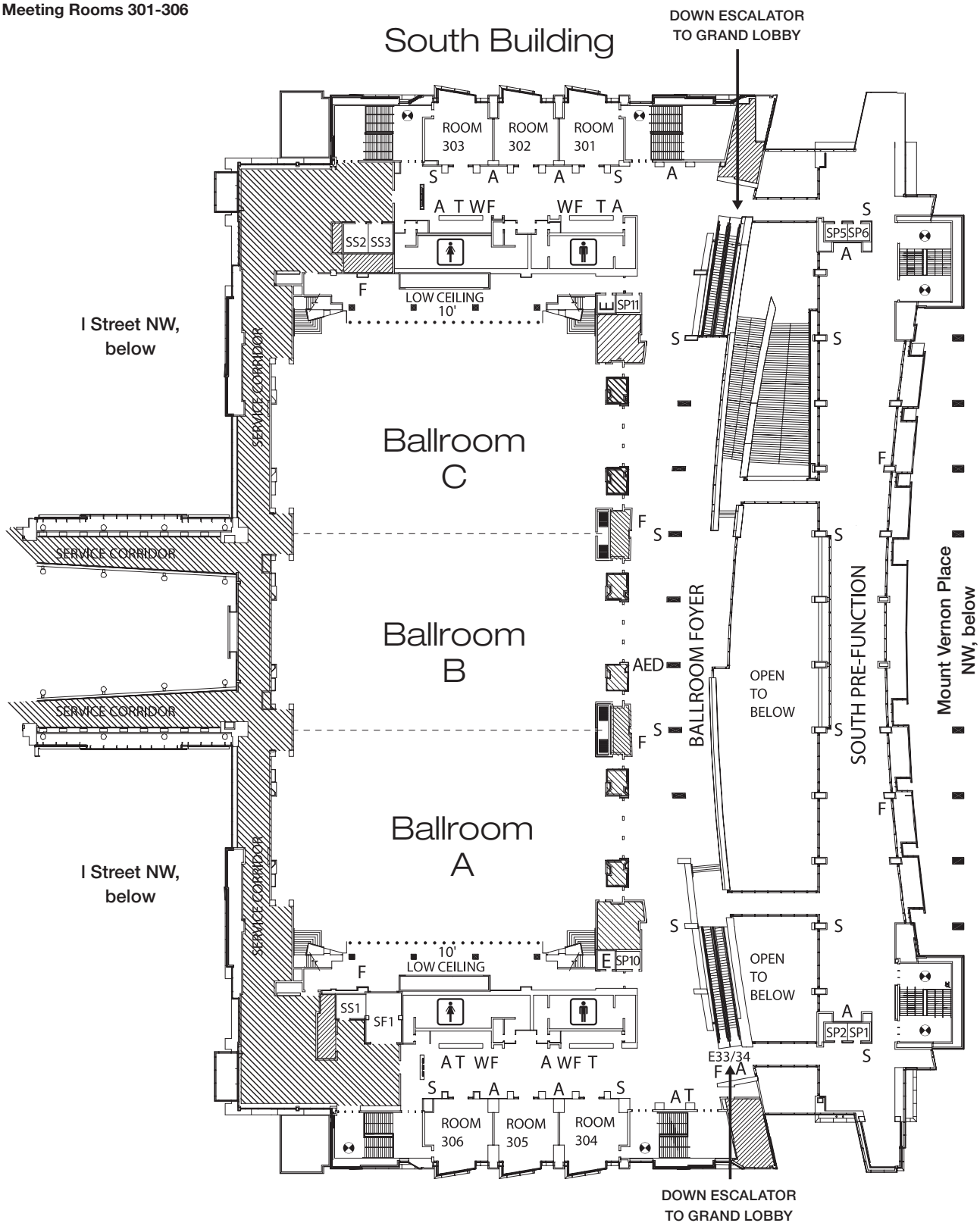


Convention Center Floor Plans

Level 3

Ballrooms A-C

Meeting Rooms 301-306



Neuroscience 2014 — Exhibits and Poster Sessions

Walter E. Washington Convention Center: Halls A–C

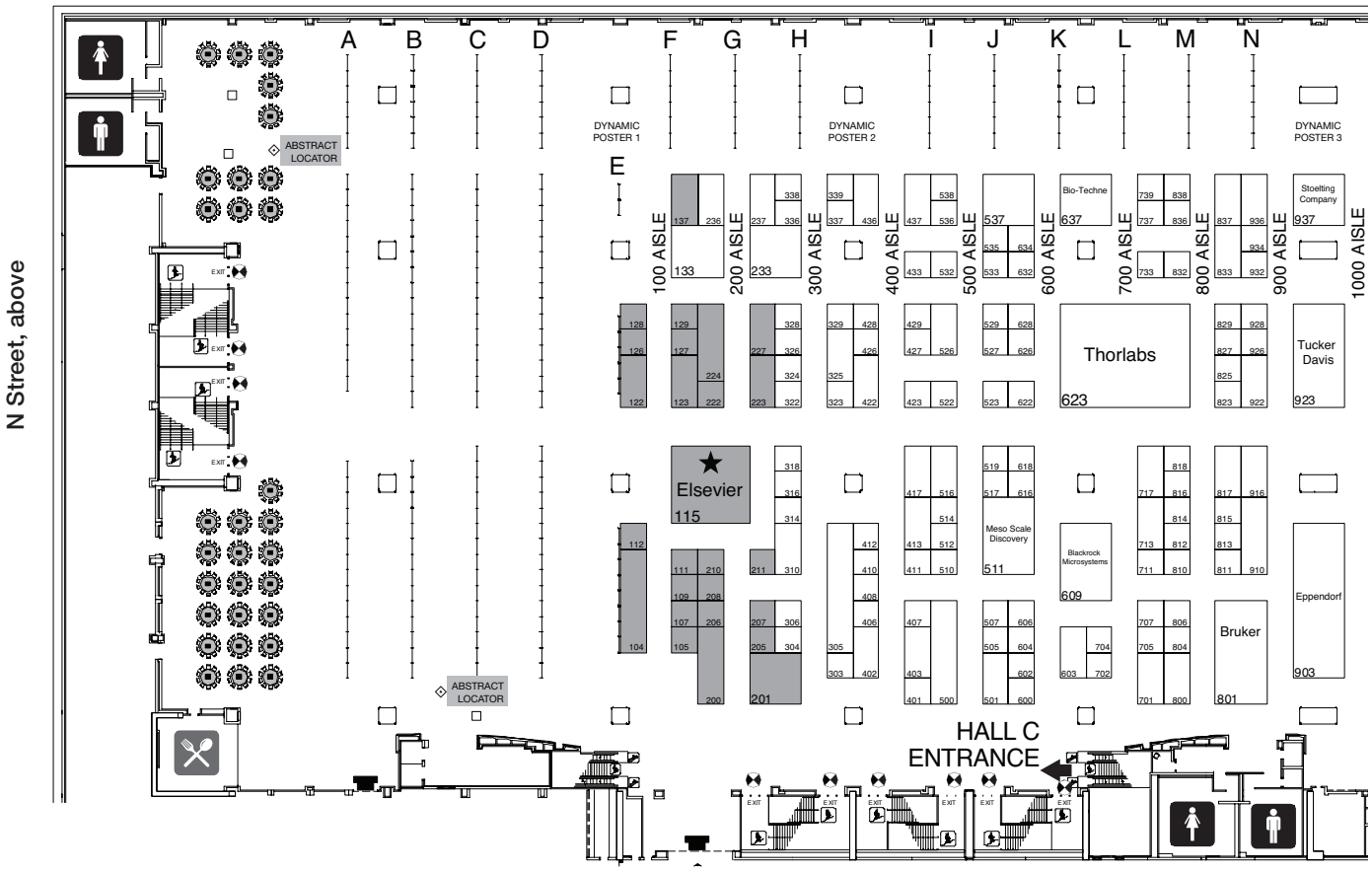
Meeting Dates: November 15–19
Exhibit Dates: November 16–19

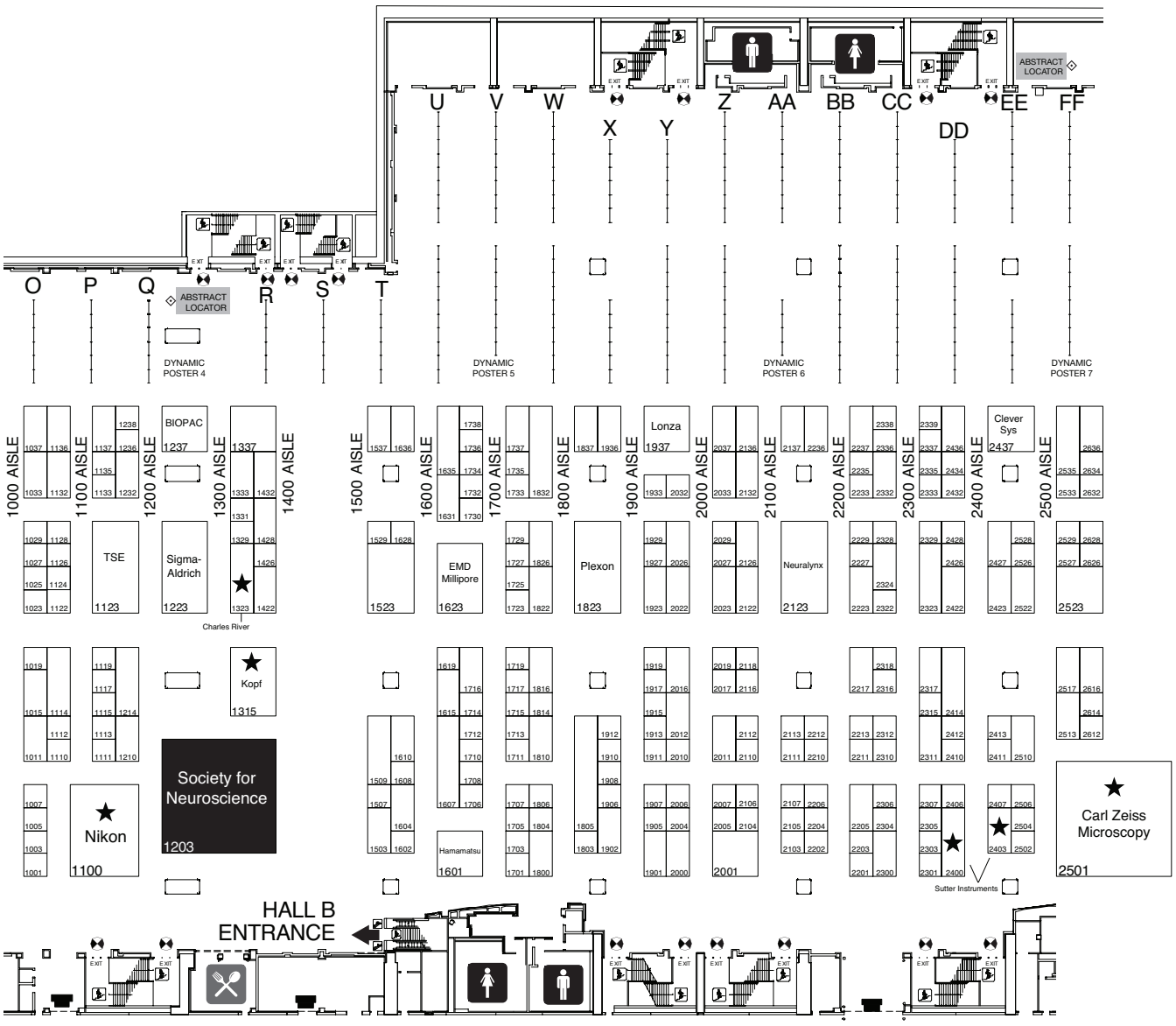
Hall entrances open at noon on Saturday, Nov. 15 and at 7 a.m. on Sunday, Nov. 16 to Wednesday, Nov. 19 for poster presenter setup.

Poster sessions are open for all attendees at 1 p.m. on Saturday, Nov. 15 and 8 a.m. Sunday, Nov. 16 to Wednesday, Nov. 19.

KEY

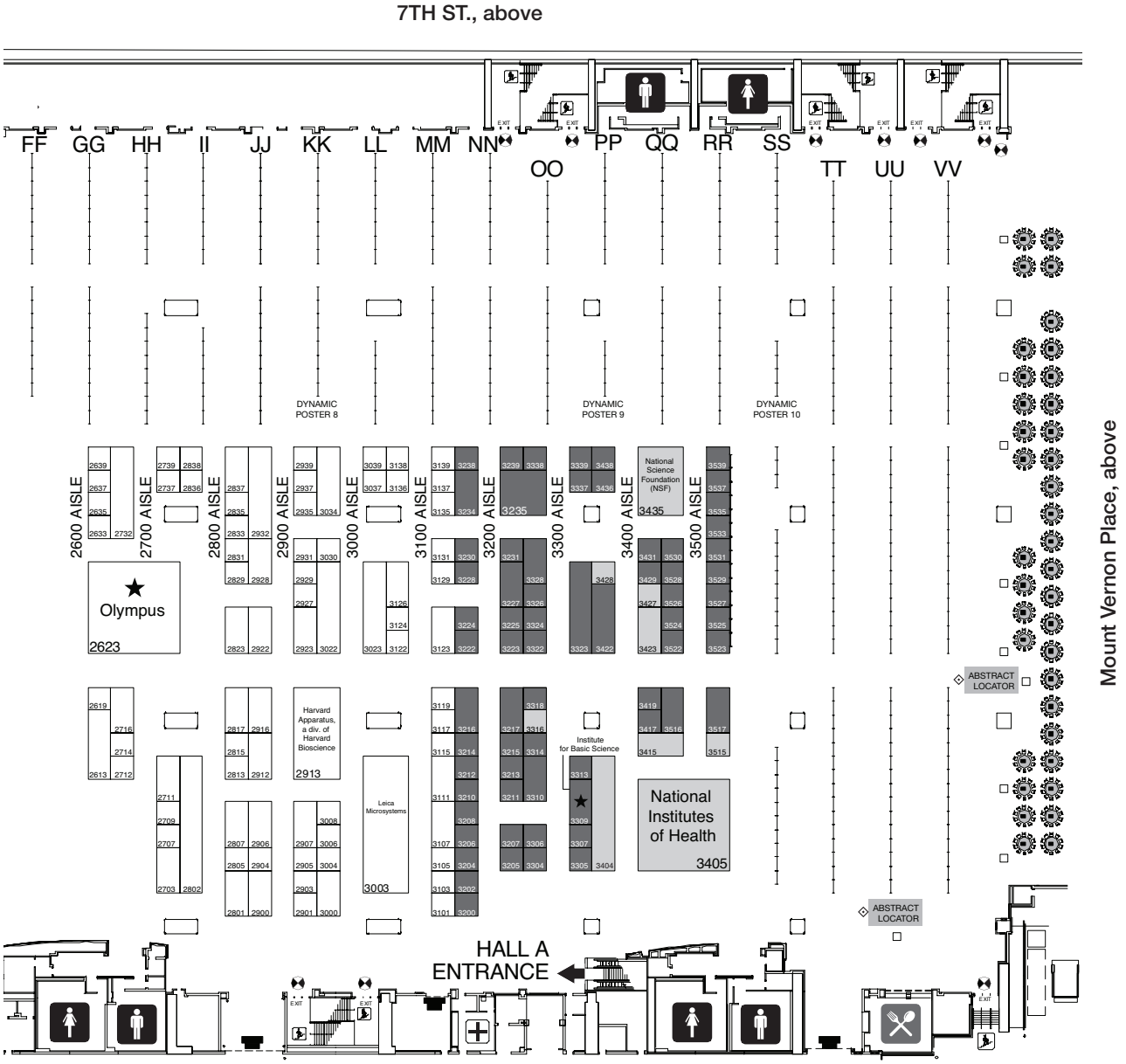
- Institutions
- Publishers
- Nonprofits
- ★ Sustaining Associate Members
- Abstract Locators
- SfN Booth
- First Aid Station
- Seating Area
- Concession Areas
- Restrooms
- Emergency Exit




ABSTRACT LOCATOR
U V W X Y Z AA BB CC DD EE FF
ABSTRACT LOCATOR
O P Q R S T
DYNAMIC POSTER 4
DYNAMIC POSTER 5
DYNAMIC POSTER 6
DYNAMIC POSTER 7
1000 AISLE
1100 AISLE
1200 AISLE
1300 AISLE
1400 AISLE
1500 AISLE
1600 AISLE
1700 AISLE
1800 AISLE
1900 AISLE
2000 AISLE
2100 AISLE
2200 AISLE
2300 AISLE
2400 AISLE
2500 AISLE
BIOPAC
1237
Lonza
1937
Clever Sys
2437
TSE
1123
Sigma-Aldrich
1223
Charles River
EMD Millipore
1623
Plexon
1823
Neuralynx
2123
1523
Kopf
1315
Society for Neuroscience
1203
Nikon
1100
Hamamatsu
1601
2001
Carl Zeiss Microscopy
2501
Sutter Instruments
HALL B ENTRANCE

KEY

- Institutions
- Publishers
- Nonprofits
- ★ Sustaining Associate Members
- Abstract Locators
- SfN Booth
- First Aid Station
- Seating Area
- Concession Areas
- Restrooms
- Emergency Exit



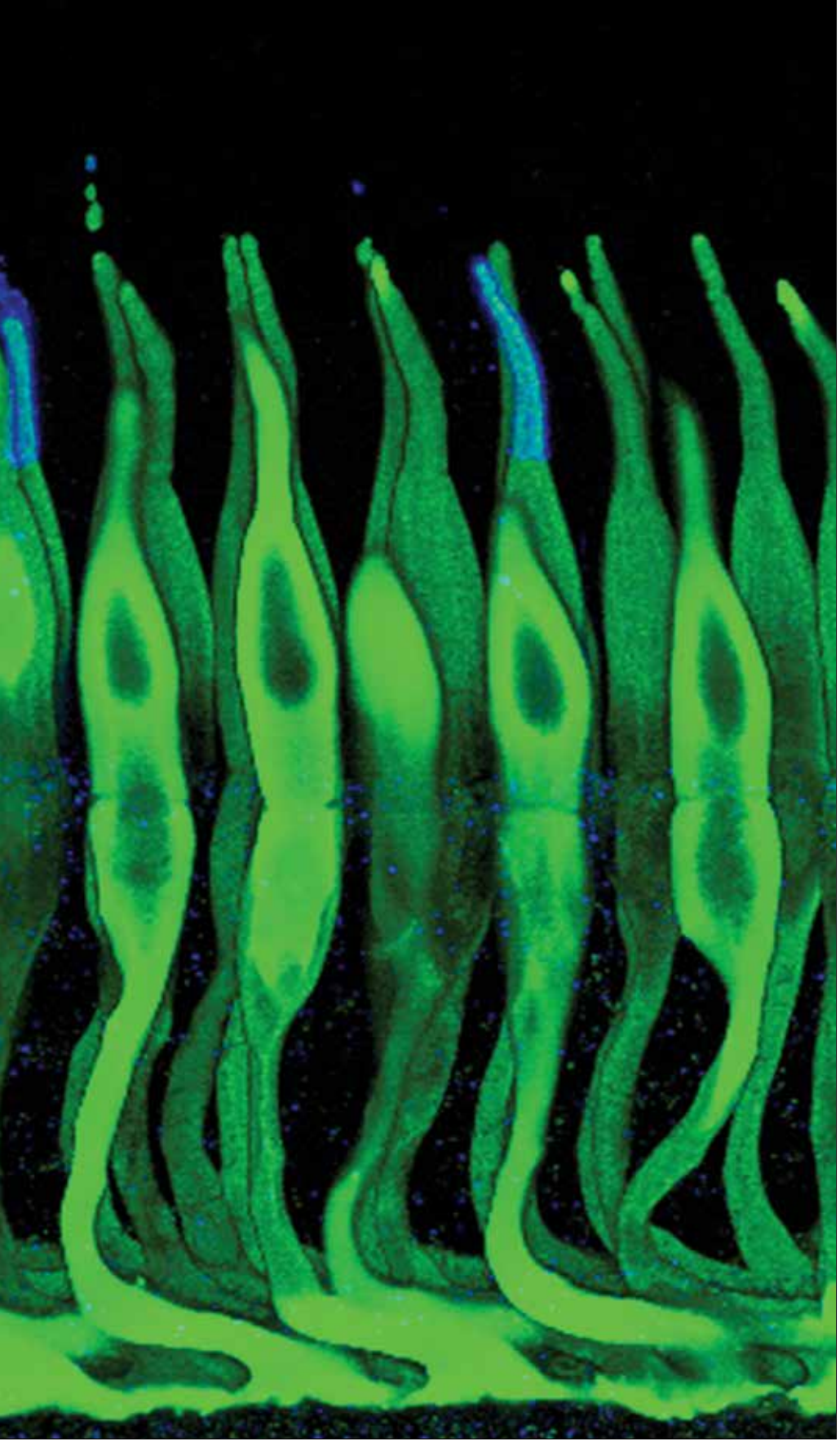
Notes

Notes

See You In CHICAGO

Neuroscience
2015

October **17–21**



NEUROSCIENCE
2014

SfN.org

SOCIETY *for* NEUROSCIENCE
1121 14th Street, NW, Suite 1010
Washington, DC 20005