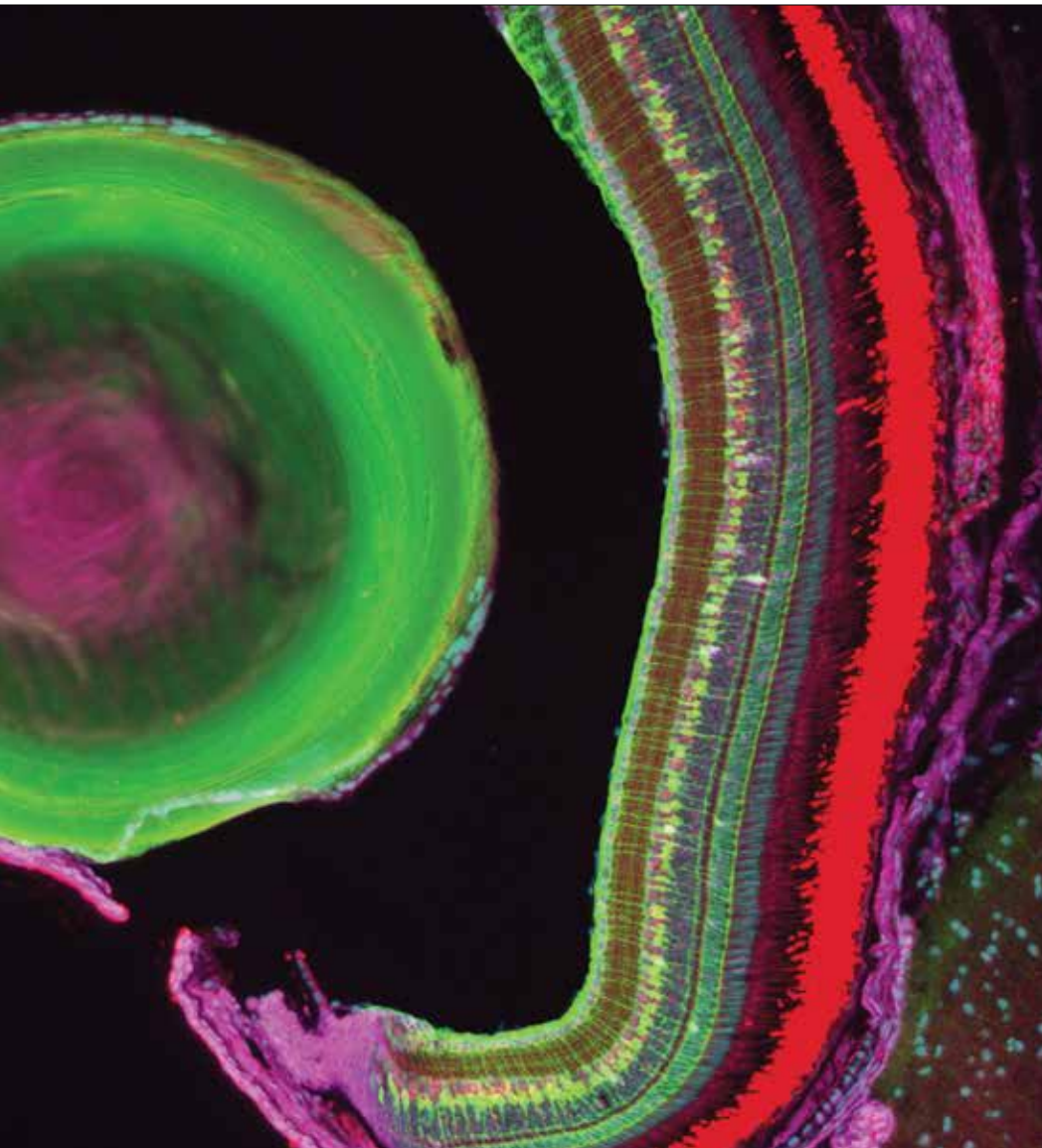


Wednesday

Scientific Session Listings 662–854



WASHINGTON, DC | November 15–19



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: This is an image of a cryosection through the eye of a juvenile transgenic zebrafish in which expression of the reporter, green fluorescent protein (GFP), is controlled by regulatory elements of the zebrafish gene *gfap* (glial fibrillary acidic protein). The section was also processed for immunofluorescence with antibodies against proliferating cell nuclear antigen (PCNA; magenta) and Pax6 (red) and counterstained with the nuclear dye DAPI (blue). The outer segments of photoreceptors show endogenous fluorescence in the red channel.

Rebecca L. Bernardos, Linda K. Barthel, Jason R. Meyers, and Pamela A. Raymond, 2007, *The Journal of Neuroscience*, 27: 27(26): 7028-7040

Wednesday Highlights

Special Lecture

Exocytosis of Synaptic Vesicles: A Molecular Perspective CME

Reinhard Jahn, PhD

Max Planck Institute for Biophysical Chemistry, Germany

8:30–9:40 a.m.

Walter E. Washington Convention Center: Hall D

Symposium

Infiltration of Innate Immune Cells Into the Injured, Infected, or Inflamed Brain CME

Chair: Charles L. Howe, PhD

8:30–11 a.m.

Walter E. Washington Convention Center: Ballroom B

Symposium

Nature, Nurture, and Trajectories to Mental Health CME

Chair: Takao K. Hensch, PhD

8:30–11 a.m.

Walter E. Washington Convention Center: Ballroom A

Symposium

OdorSpace: Deciphering Stimulus Space in Olfaction CME

Chair: Noam Sobel, PhD

8:30–11 a.m.

Walter E. Washington Convention Center: Ballroom C

Minisymposium

Imaging and Segmentation of Hippocampal Subfields in Humans: Relevance to Cognition and Disease CME

Chair: Geoffrey A. Kerchner, MD, PhD

Co-chair: Paul Yushkevich, PhD

8:30–11 a.m.

Walter E. Washington Convention Center: 145B

Minisymposium

Is There a Neurobiological Basis for Food Addiction? CME

Chair: Ivan E. De Araujo, PhD

Co-chair: Ralph DiLeone, PhD

8:30–11 a.m.

Walter E. Washington Convention Center: 146AB

Minisymposium

Transgenic Primate Models of Human Brain CME

Chair: John H. Reynolds, PhD

Co-chair: Partha P. Mitra, PhD

8:30–11 a.m.

Walter E. Washington Convention Center: 151AB

Special Lecture

The Sensory Neurons of Touch CME

David D. Ginty, PhD

Harvard Medical School, Howard Hughes Medical Institute

11:30 a.m.–12:40 p.m.

Walter E. Washington Convention Center: Hall D

Special Lecture

Affective Neuroscience of Reward: Limbic Modules for Liking and Wanting CME

Kent C. Berridge, PhD

University of Michigan, Ann Arbor

1–2:10 p.m.

Walter E. Washington Convention Center: Hall D

Symposium

Gut Microbes and the Brain: Paradigm Shift in Neuroscience CME

Chair: Emeran A. Mayer, MD

Co-chair: Rob Knight, PhD

1:30–4 p.m.

Walter E. Washington Convention Center: 146AB

Symposium

Neuroscience of Implicit Cognition and Learning: Current Theories and Methods CME

Chair: Richard Ivry, PhD

Co-chair: Dezso Nemeth, PhD

1:30–4 p.m.

Walter E. Washington Convention Center: Ballroom A

Symposium

The Latest on the Ubiquitin Pathway and Central Nervous System Disease CME

Chair: Tauseef R. Butt, PhD

1:30–4 p.m.

Walter E. Washington Convention Center: Ballroom B

Minisymposium

Human Subcortical Connectivity with High-Field MRI CME

Chair: Salvatore J. Torrisi, PhD

Co-chair: Monique Ernst, MD, PhD

1:30–4 p.m.

Walter E. Washington Convention Center: Ballroom C

Minisymposium

Pro-Nociceptive Interactions Between Spinal and Supraspinal Centers in Chronic Pain: Mechanisms and Avenues for Novel Drug Targets CME

Chair: Shafaq Sikandar, PhD

1:30–4 p.m.

Walter E. Washington Convention Center: 151AB

Chronological List of Wednesday Sessions

Theme Descriptions

A Development	D Sensory and Motor Systems	F Cognition and Behavior
B Neural Excitability, Synapses, and Glia: Cellular Mechanisms	E Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge	G Novel Methods and Technology Development
C Disorders of the Nervous System		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							
662	B	Exocytosis of Synaptic Vesicles: A Molecular Perspective	Special Lecture		Hall D	8:30–9:40 a.m.	1.25
663	C	Infiltration of Innate Immune Cells Into the Injured, Infected, or Inflamed Brain	Symposium		Ballroom B	8:30–11 a.m.	2.5
664	C	Nature, Nurture, and Trajectories to Mental Health	Symposium		Ballroom A	8:30–11 a.m.	2.5
665	D	OdorSpace: Deciphering Stimulus Space in Olfaction	Symposium		Ballroom C	8:30–11 a.m.	2.5
666	F	Imaging and Segmentation of Hippocampal Subfields in Humans: Relevance to Cognition and Disease	Minisymposium		Room 145B	8:30–11 a.m.	2.5
667	E	Is There a Neurobiological Basis for Food Addiction?	Minisymposium		Room 146AB	8:30–11 a.m.	2.5
668	G	Transgenic Primate Models of Human Brain	Minisymposium		Room 151AB	8:30–11 a.m.	2.5
669	D	The Sensory Neurons of Touch	Special Lecture		Hall D	11:30 a.m.–12:40 p.m.	1.25
761	F	Affective Neuroscience of Reward: Limbic Modules for Liking and Wanting	Special Lecture		Hall D	1–2:10 p.m.	1.25
762	C	Gut Microbes and the Brain: Paradigm Shift in Neuroscience	Symposium		Room 146AB	1:30–4 p.m.	2.5
763	F	Neuroscience of Implicit Cognition and Learning: Current Theories and Methods	Symposium		Ballroom A	1:30–4 p.m.	2.5
764	C	The Latest on the Ubiquitin Pathway and Central Nervous System Disease	Symposium		Ballroom B	1:30–4 p.m.	2.5
765	C	Human Subcortical Connectivity with High-Field MRI	Minisymposium		Ballroom C	1:30–4 p.m.	2.5
766	D	Pro–Nociceptive Interactions Between Spinal and Supraspinal Centers in Chronic Pain: Mechanisms and Avenues for Novel Drug Targets	Minisymposium		Room 151AB	1:30–4 p.m.	2.5
NANOSYMPOSIA (8 A.M.–NOON)							
670	C	Complex Neurodegenerative Pathologies	Nanosymposium		Room 140A	8–10 am.	
671	C	Alzheimer's Disease: Experimental Therapeutics I	Nanosymposium		Room 147B	8–10 am.	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
672	C	Ischemia: Neuroprotection	Nanosymposium		Room 152A	8–11 a.m.	
673	C	Metabolic and Excitotoxic Mechanisms of Cell Death and Degeneration	Nanosymposium		Room 144A	8–11:30 a.m.	
674	D	Extrastriate Cortex: Neural Coding	Nanosymposium		Room 143A	8–10:30 a.m.	
675	E	The Neurobiological Sequelae of Early-Life Stress	Nanosymposium		Room 206	8–11:15 a.m.	
676	E	Biological Rhythms and Sleep: Mechanisms	Nanosymposium		Room 152B	8–11:15 a.m.	
677	E	Blood Brain Barrier: Development and Disease	Nanosymposium		Room 147A	8–10:15 a.m.	
678	F	Human Reinforcement Learning: Neural Mechanisms	Nanosymposium		Room 150B	8–10:30 a.m.	
679	F	Human Cognition: White Matter and Functional Connectivity	Nanosymposium		Room 146C	8–11:15 a.m.	
680	G	Novel Assays: Nanotools for Neuroscience I	Nanosymposium		Room 150A	8–11:15 a.m.	
POSTERS (8 A.M.–NOON)							
681	A	Induced Neurogenesis	Poster	A1–A9	Halls A–C	8 a.m.–noon	
682	B	Brain Cholinergic Mechanisms	Poster	A10–A31	Halls A–C	8 a.m.–noon	
683	B	Opioid Receptor Signaling and Function	Poster	A32–A44	Halls A–C	8 a.m.–noon	
684	B	Calcium Channels: Intracellular Calcium Signaling	Poster	A45–A54	Halls A–C	8 a.m.–noon	
685	B	Ca-Gated K Channels	Poster	A55–A61	Halls A–C	8 a.m.–noon	
686	B	Neuronal Excitability: HCN and Non-Selective Cation Channels	Poster	A62–B3	Halls A–C	8 a.m.–noon	
687	B	Acetylcholine and Other Transporters	Poster	B4–B22	Halls A–C	8 a.m.–noon	
688	B	Homeostatic Synaptic Plasticity and Presynaptic Function	Poster	B23–B45	Halls A–C	8 a.m.–noon	
689	B	Synaptic Plasticity: Transcription and Translation	Poster	B46–C15	Halls A–C	8 a.m.–noon	
690	C	Alzheimer's Disease: Cognitive Function	Poster	C16–C36	Halls A–C	8 a.m.–noon	
691	C	Neuropharmacology and Neurotransmission in Dementia	Poster	C37–C61	Halls A–C	8 a.m.–noon	
692	C	Parkinson's Disease: Animal Intoxication Models	Poster	C62–D15	Halls A–C	8 a.m.–noon	
693	C	Parkinson's Disease: Cellular Mechanisms	Poster	D16–D42	Halls A–C	8 a.m.–noon	
694	C	Parkinson's Disease	Poster	D43–D68	Halls A–C	8 a.m.–noon	
695	C	Mechanisms of Cell Death and Dysfunction	Poster	D69–F1	Halls A–C	8 a.m.–noon	
696	C	Motor Neuron Disease and Animal Models	Poster	F2–G11	Halls A–C	8 a.m.–noon	
697	C	Other Neurodegenerative Disorders I	Poster	G12–I7	Halls A–C	8 a.m.–noon	
698	C	Physiology and Pathophysiology of Hormones	Poster	I8–K4	Halls A–C	8 a.m.–noon	
699	C	Fragile X Syndrome	Poster	K5–M6	Halls A–C	8 a.m.–noon	
700	C	Attention Deficit Hyperactivity Disorder	Poster	M7–N7	Halls A–C	8 a.m.–noon	
701	C	Ischemia: Cellular Mechanisms and Neuroprotection IV	Poster	N8–O8	Halls A–C	8 a.m.–noon	
702	C	Ischemia: Pathophysiology, Biomarkers, and Treatment	Poster	O9–Q5	Halls A–C	8 a.m.–noon	
703	C	Traumatic Brain Injury: Human Studies	Poster	Q6–S5	Halls A–C	8 a.m.–noon	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
704	C	Spinal Cord Injury	Poster	S6–U6	Halls A–C	8 a.m.–noon	
705	C	Peripheral and Central Nerve Injury	Poster	U7–U31	Halls A–C	8 a.m.–noon	
706	C	Psychosis and Affect: Human Biomarker Studies	Poster	U32–V21	Halls A–C	8 a.m.–noon	
707	C	Developmental Animal Models of Schizophrenia	Poster	V22–W18	Halls A–C	8 a.m.–noon	
708	C	Mood Disorders: Human Postmortem	Poster	W19–W33	Halls A–C	8 a.m.–noon	
709	C	Mood Disorders: Animal Models I	Poster	W34–Y3	Halls A–C	8 a.m.–noon	
710	C	Mood Disorders Animal Models II	Poster	Y4–Y29	Halls A–C	8 a.m.–noon	
711	C	Mood Disorders Animal Models III	Poster	Y30–Z25	Halls A–C	8 a.m.–noon	
712	C	Alcohol: Developmental Effects	Poster	Z26–AA11	Halls A–C	8 a.m.–noon	
713	C	Drug Discovery and Delivery	Poster	AA12–BB17	Halls A–C	8 a.m.–noon	
714	C	New Drugs for Pain, Headache, and Migraine	Poster	BB18–BB33	Halls A–C	8 a.m.–noon	
715	C	Stroke Recovery: Rodent Models	Poster	CC1–CC17	Halls A–C	8 a.m.–noon	
716	C	Stroke Recovery	Poster	CC18–DD4	Halls A–C	8 a.m.–noon	
717	C	Stroke: Imaging and Diagnostics I	Poster	DD5–DD25	Halls A–C	8 a.m.–noon	
718	C	Stroke: Imaging and Diagnostics II	Poster	DD26–EE3	Halls A–C	8 a.m.–noon	
719	D	Olfactory Coding: Second-Order Regions (Olfactory Bulb and Antennal Lobe)	Poster	EE4–FF2	Halls A–C	8 a.m.–noon	
720	D	Olfactory Coding: Higher-Order Regions, Oscillations and Integrative Studies	Poster	FF3–FF23	Halls A–C	8 a.m.–noon	
721	D	Olfaction: Behavior Perception and Relationship to Neurophysiology	Poster	FF24–GG3	Halls A–C	8 a.m.–noon	
722	D	Mechanoreceptors and Cochlea	Poster	GG4–GG13	Halls A–C	8 a.m.–noon	
723	D	Sound Localization and Binaural Interactions	Poster	GG14–GG27	Halls A–C	8 a.m.–noon	
724	D	Multisensory: Cross-Modal Processing in Humans	Poster	GG28–HH6	Halls A–C	8 a.m.–noon	
725	D	Retinal Circuitry	Poster	HH7–HH27	Halls A–C	8 a.m.–noon	
726	D	Visual Motion	Poster	HH28–II25	Halls A–C	8 a.m.–noon	
727	D	Nociceptors: Anatomical and Physiological Studies	Poster	II26–JJ10	Halls A–C	8 a.m.–noon	
728	D	Thalamic and Cortical Processing	Poster	JJ11–JJ25	Halls A–C	8 a.m.–noon	
729	D	Treatments for Persistent Pain	Poster	JJ26–KK9	Halls A–C	8 a.m.–noon	
730	D	Pain Models: Pharmacology	Poster	KK10–LL3	Halls A–C	8 a.m.–noon	
731	D	Neurorehabilitation	Poster	LL4–LL17	Halls A–C	8 a.m.–noon	
732	D	Spinal Cord Injury: Repair, Training, and Rehabilitation II	Poster	LL18–MM18	Halls A–C	8 a.m.–noon	
733	D	Cerebellum: Human Studies	Poster	MM19–MM30	Halls A–C	8 a.m.–noon	
734	D	Afferent Control of Posture and Gait	Poster	MM31–NN10	Halls A–C	8 a.m.–noon	
735	D	Motor Cortex	Poster	NN11–NN31	Halls A–C	8 a.m.–noon	
736	E	Autonomic Control of Renal, Urinary, and Reproductive Functions	Poster	NN32–OO23	Halls A–C	8 a.m.–noon	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
737	E	Integration of Peripheral Signals: Systems	Poster	QQ24-PP6	Halls A–C	8 a.m.–noon	
738	E	Energy Metabolism	Poster	PP7-QQ3	Halls A–C	8 a.m.–noon	
739	E	Blood Brain Barrier: Cell Biology, Physiology, and Disease	Poster	QQ4-QQ18	Halls A–C	8 a.m.–noon	
740	E	Functional Neuroimaging: Networks, Regions, and Resting State	Poster	QQ19-QQ28	Halls A–C	8 a.m.–noon	
741	F	Human Long-Term Memory: Encoding	Poster	QQ29-RR17	Halls A–C	8 a.m.–noon	
742	F	Human Emotion: Individual Differences and Disorders	Poster	RR18-RR44	Halls A–C	8 a.m.–noon	
743	F	Human Decision-Making: Risk, Effort, and Loss	Poster	RR45-SS5	Halls A–C	8 a.m.–noon	
744	F	Attention: Individual Differences	Poster	SS6-SS25	Halls A–C	8 a.m.–noon	
745	F	Executive Function: Models of Disorders II	Poster	SS26-SS43	Halls A–C	8 a.m.–noon	
746	F	Fear and Aversive Memories: Cortex	Poster	SS44-TT1	Halls A–C	8 a.m.–noon	
747	F	Fear and Aversive Memories: Amygdala	Poster	TT2-TT28	Halls A–C	8 a.m.–noon	
748	F	Fear and Aversive Memories: Other Regions and Circuits	Poster	TT29-TT41	Halls A–C	8 a.m.–noon	
749	F	Memory Consolidation and Reconsolidation: Behavior	Poster	TT42-TT69	Halls A–C	8 a.m.–noon	
750	F	Animal Models: Recognition Memory and Novelty Detection	Poster	TT70-TT91	Halls A–C	8 a.m.–noon	
751	F	Oscillations and Learning	Poster	TT92-UU18	Halls A–C	8 a.m.–noon	
752	F	Cortical and Hippocampal Circuits: Timing and Temporal Processing II	Poster	UU19-UU40	Halls A–C	8 a.m.–noon	
753	F	Prefrontal and Striatal Systems II	Poster	UU41-UU62	Halls A–C	8 a.m.–noon	
754	F	Fear and Aversive Memories: Hippocampus	Poster	UU63-UU76	Halls A–C	8 a.m.–noon	
755	F	Reward: Dopamine II	Poster	UU77-UU91	Halls A–C	8 a.m.–noon	
756	F	Motivation and Emotions: Reward Circuitry	Poster	UU92-VV12	Halls A–C	8 a.m.–noon	
757	F	Human Reward	Poster	VV13-VV42	Halls A–C	8 a.m.–noon	
758	F	Sex and Steroids	Poster	VV43-VV54	Halls A–C	8 a.m.–noon	
759	G	Novel Assays: Nanotools for Neuroscience II	Poster	VV55-VV70	Halls A–C	8 a.m.–noon	
760	G	Network Models and Cognitive Function	Poster	VV71-VV78	Halls A–C	8 a.m.–noon	
NANOSYMPOSIA (1–5 P.M.)							
767	B	Synaptic Plasticity: Molecular and Circuit Mechanisms	Nanosymposium		Room 147A	1–4:15 p.m.	
768	C	APP Functions and Processing Pathways	Nanosymposium		Room 150B	1–3:30 p.m.	
769	C	Huntington's Disease Mechanisms and Therapeutic Strategies	Nanosymposium		Room 147B	1–4:15 p.m.	
770	C	Repeat Diseases From SBMA to Motor Neuron Disease	Nanosymposium		Room 146C	1–3 p.m.	
771	C	Stroke Recovery	Nanosymposium		Room 152B	1–4:15 p.m.	
772	D	Functional Organization of the Human Visual Cortex	Nanosymposium		Room 144A	1–3:30 p.m.	
773	E	Neuroscience and Psychology of Motherhood	Nanosymposium		Room 140A	1–3:30 p.m.	
774	E	Respiratory Neurobiology	Nanosymposium		Room 150A	1–3:15 p.m.	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
775	F	Long-Term Memory: Medial Temporal Lobe	Nanosymposium		Room 143A	1–4 p.m.	
776	F	Predictive Coding: Human Cognition	Nanosymposium		Room 152A	1–4 p.m.	
POSTERS (1–5 P.M.)							
777	A	Synapse Development	Poster	A1-A25	Halls A–C	1–5 p.m.	
778	A	Synapse Formation: Trans-Synaptic Mechanisms	Poster	A26-A33	Halls A–C	1–5 p.m.	
779	A	Development of Motor Systems	Poster	A34-A47	Halls A–C	1–5 p.m.	
780	A	Development of Sensory Systems	Poster	A48-B9	Halls A–C	1–5 p.m.	
781	B	AMPA Receptor Modifications	Poster	B10-B20	Halls A–C	1–5 p.m.	
782	B	GABAA Receptor Pharmacology and Function	Poster	B21-B35	Halls A–C	1–5 p.m.	
783	B	Inhibitory Plasticity	Poster	B36-B51	Halls A–C	1–5 p.m.	
784	B	Serotonin and GABAB GPCRs	Poster	B52-C3	Halls A–C	1–5 p.m.	
785	B	Spine Dynamics	Poster	C4-C31	Halls A–C	1–5 p.m.	
786	B	Synaptic Plasticity: Other	Poster	C32-C49	Halls A–C	1–5 p.m.	
787	B	Oscillations: Connectivity	Poster	C50-C61	Halls A–C	1–5 p.m.	
788	C	Alzheimer's Disease: Tau Biochemistry	Poster	C62-D13	Halls A–C	1–5 p.m.	
789	C	Alzheimer's Disease: APP Abeta <i>In Vivo</i> Models II	Poster	D14-D37	Halls A–C	1–5 p.m.	
790	C	Modulation of Disease Pathology in Alzheimer's Disease Models	Poster	D38-D59	Halls A–C	1–5 p.m.	
791	C	APP Cleavage and Metabolism Processes	Poster	D60-F2	Halls A–C	1–5 p.m.	
792	C	Alzheimer's Disease: Tauopathy	Poster	F3-H1	Halls A–C	1–5 p.m.	
793	C	Alzheimer's Disease: Genetics and Biology II	Poster	H2-I6	Halls A–C	1–5 p.m.	
794	C	Parkinson's Disease Models III	Poster	I7-K9	Halls A–C	1–5 p.m.	
795	C	Huntington's Disease Mechanisms II	Poster	L1-N1	Halls A–C	1–5 p.m.	
796	C	Motor Neuron Disease Mechanisms	Poster	N2-P7	Halls A–C	1–5 p.m.	
797	C	Other Neurodegenerative Disorders II	Poster	P8-S1	Halls A–C	1–5 p.m.	
798	C	Autism Behavioral Analysis II	Poster	S2-T6	Halls A–C	1–5 p.m.	
799	C	Autism Environment and Pathology	Poster	T7-U6	Halls A–C	1–5 p.m.	
800	C	Ischemia: Cellular Mechanisms and Neuroprotection V	Poster	U7-U28	Halls A–C	1–5 p.m.	
801	C	Ischemia: Cellular Mechanisms and Neuroprotection VI	Poster	U29-V4	Halls A–C	1–5 p.m.	
802	C	Ischemia: Cellular Mechanisms and Neuroprotection VII	Poster	V5-V21	Halls A–C	1–5 p.m.	
803	C	Ischemia: Inflammation	Poster	V22-V30	Halls A–C	1–5 p.m.	
804	C	Ischemia: Neuroprotection II	Poster	V31-W21	Halls A–C	1–5 p.m.	
805	C	Ischemia: Cellular Mechanisms and Neuroprotection VIII	Poster	W22-W31	Halls A–C	1–5 p.m.	
806	C	Microglia in Neuroinflammation and Neuroprotection	Poster	W32-X13	Halls A–C	1–5 p.m.	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
807	C	Neuroinflammation	Poster	X14-Y16	Halls A–C	1–5 p.m.	
808	C	Mood Disorders in Animal Models IV	Poster	Y17-Z13	Halls A–C	1–5 p.m.	
809	C	Amphetamine Reinforcement II	Poster	Z14-AA1	Halls A–C	1–5 p.m.	
810	C	Cannabis: Neural Mechanisms and Addiction	Poster	AA2-AA15	Halls A–C	1–5 p.m.	
811	C	Neural Plasticity, Dependence, and Addiction	Poster	AA16-BB21	Halls A–C	1–5 p.m.	
812	C	Drug Self-Administration: Behavioral Pharmacology and Molecular Mechanisms	Poster	BB22-BB32	Halls A–C	1–5 p.m.	
813	C	Neuropeptides and Behavior	Poster	BB33-CC22	Halls A–C	1–5 p.m.	
814	D	Auditory Cortex	Poster	CC23-DD6	Halls A–C	1–5 p.m.	
815	D	Auditory Processing: Perception, Cognition, and Action via Animal and Modeling Studies	Poster	DD7-DD20	Halls A–C	1–5 p.m.	
816	D	Subcortical Visual Pathways	Poster	DD21-EE6	Halls A–C	1–5 p.m.	
817	D	Subcortical Visual Pathways: Rodents	Poster	EE7-EE27	Halls A–C	1–5 p.m.	
818	D	Striate Cortex: High-Level Factors	Poster	EE28-FF18	Halls A–C	1–5 p.m.	
819	D	Striate Cortex: Plasticity	Poster	FF19-GG10	Halls A–C	1–5 p.m.	
820	D	Extrastriate Cortex: Connections and Function	Poster	GG11-GG23	Halls A–C	1–5 p.m.	
821	D	Visual Motion: Heading and Orientation	Poster	GG24-GG33	Halls A–C	1–5 p.m.	
822	D	Visual Processing: Objects and Scenes	Poster	GG34-HH27	Halls A–C	1–5 p.m.	
823	D	Visual Processing: Faces	Poster	HH28-II25	Halls A–C	1–5 p.m.	
824	D	Visual Learning, Memory, and Categorization	Poster	II26-JJ12	Halls A–C	1–5 p.m.	
825	D	Sensory Coding, Perception, and Navigation	Poster	JJ13-JJ30	Halls A–C	1–5 p.m.	
826	D	Trigeminal Processing of Pain	Poster	JJ31-KK7	Halls A–C	1–5 p.m.	
827	D	Spinal Cord Injury and Plasticity II	Poster	KK8-LL2	Halls A–C	1–5 p.m.	
828	D	Neuromodulation	Poster	LL3-MM2	Halls A–C	1–5 p.m.	
829	D	Muscle Physiology and Biochemistry	Poster	MM3-MM18	Halls A–C	1–5 p.m.	
830	D	Posture and Gait: Kinematics, Muscle Activity, Exercise and Fatigue, and Biomechanics II	Poster	MM19-NN2	Halls A–C	1–5 p.m.	
831	D	Posture and Gait	Poster	NN3-NN20	Halls A–C	1–5 p.m.	
832	E	Social Behavior: Oxytocin	Poster	NN21-006	Halls A–C	1–5 p.m.	
833	E	Integration of Peripheral Signals: Regulators	Poster	007-0024	Halls A–C	1–5 p.m.	
834	E	Neuropeptide Regulators	Poster	0025-PP19	Halls A–C	1–5 p.m.	
835	F	Functional Mechanisms of Attention II	Poster	PP20-QQ18	Halls A–C	1–5 p.m.	
836	F	Decision-Making and Stress	Poster	QQ19-QQ28	Halls A–C	1–5 p.m.	
837	F	Disorders of Executive Function	Poster	QQ29-RR12	Halls A–C	1–5 p.m.	
838	F	Executive Function II	Poster	RR13-RR33	Halls A–C	1–5 p.m.	
839	F	Human Cognition I	Poster	RR34-SS8	Halls A–C	1–5 p.m.	

SESSION NUMBER	THEME	SESSION TITLE	SESSION TYPE	POSTER BOARD NUMBER	LOCATION	SESSION TIME	CME HOURS
840	F	Human Cognition II	Poster	SS9-SS22	Halls A–C	1–5 p.m.	
841	F	Mechanisms of Attention: Parietal and Prefrontal	Poster	SS23-SS34	Halls A–C	1–5 p.m.	
842	F	Executive Function: Learning and Memory I	Poster	SS35-SS56	Halls A–C	1–5 p.m.	
843	F	Executive Function: Learning and Memory II	Poster	SS57-TT10	Halls A–C	1–5 p.m.	
844	F	Executive Function: Network Activity	Poster	TT11-TT38	Halls A–C	1–5 p.m.	
845	F	Neurogenesis and Plasticity	Poster	TT39-TT68	Halls A–C	1–5 p.m.	
846	F	Learning and Memory: Pharmacology II	Poster	TT69-TT88	Halls A–C	1–5 p.m.	
847	F	Learning and Memory: Aging II	Poster	TT89-UU15	Halls A–C	1–5 p.m.	
848	F	Cortical and Hippocampal Circuits: Spatial Navigation III	Poster	UU16-UU45	Halls A–C	1–5 p.m.	
849	F	Social Behavior: Neural Mechanisms	Poster	UU46-UU63	Halls A–C	1–5 p.m.	
850	G	Imaging Advances: <i>In Vivo</i> Animals	Poster	UU64-WV1	Halls A–C	1–5 p.m.	
851	G	Optogenetics: Experimental Uses	Poster	W2-VV18	Halls A–C	1–5 p.m.	
852	G	Modeling Neurons, Circuits, and Behavior	Poster	W19-VV35	Halls A–C	1–5 p.m.	
853	G	Data Analysis and Statistics III	Poster	W36-VV50	Halls A–C	1–5 p.m.	
854	G	Data Analysis and Statistics: Software Tools	Poster	W51-VV79	Halls A–C	1–5 p.m.	

Dynamic Posters — Wednesday AM/PM

Wednesday'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	Reduced Kcnmb4 expression and changes in BK channel subtype in hippocampal granule neurons following seizure activity	Robert Brenner	DP1	A60	685.06
Theme C: Disorders of the Nervous System	Trafficking of alpha-synuclein in neurons studied with timeSTAMP genetic probes and correlated LM and 3D EM	Daniela Boassa	DP2	D32	693.17
Theme C: Disorders of the Nervous System	Persistence of resting-state fMRI derived outcome measures from weekly sessions over 185 weeks	Ann Choe	DP3	R10	703.14
Theme C: Disorders of the Nervous System	Network modeling of resting state fMRI of stroke patients yields effective measures that correlate with behavioral performance impairments	Mohit Adhikari	DP4	DD18	717.14
Theme D: Sensory and Motor Systems	The spatio-temporal input-output function of the olfactory bulb is modulated by respiratory cycle activity	Shaina Short	DP5	FF2	719.27
Theme D: Sensory and Motor Systems	Dual site TMS as a tool to investigate fronto-parietal connectivity during the rubber hand illusion	Anke Karabanov	DP6	GG30	724.03
Theme F: Cognition and Behavior	New automated touchscreen location and object-location tasks for the mouse: Effects of lesions of the hippocampus	Chi Hun Kim	DP7	TT88	750.19
Theme F: Cognition and Behavior	Differential integration of reward value and effort cost by noradrenaline and dopamine neurons: A direct comparison in behaving monkeys	Chiara Varazzani	DP8	W12	756.13
Theme G: Novel Methods and Technology Development	Microfluidic devices to artificially connect neurons	Margaret Magdesian	DP9	W57	759.03
Theme G: Novel Methods and Technology Development	Network theory analysis reveals hierarchical cortical organization as a platform for consciousness to emerge	Nir Lahav	DP10	W75	760.05
DYNAMIC POSTERS (1–5 P.M.)					
Theme A: Development	Synaptotagmin I in RGCs regulates the patterned spontaneous activity in the developing rat retina	Cheng-Chang Yang	DP1	A61	780.14
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	Vascular amyloid and gliovascular dysfunction in a mouse model of Alzheimer's disease	Ian Kimbrough	DP2	D57	790.2
Theme C: Disorders of the Nervous System	S-Nitrosylation of insulin degrading enzyme in Alzheimer's disease	Mohd Akhtar	DP3	F2	791.3
Theme C: Disorders of the Nervous System	The effects of targeted intracerebral saporin injection on recovery from stroke	April Becker	DP4	U15	800.09
Theme D: Sensory and Motor Systems	Spontaneous changes in state explain cortical and behavioral response variability	Matthew McGinley	DP5	DD9	815.03
Theme D: Sensory and Motor Systems	Brain-wide imaging of neural activity during a visual discrimination task	Joseph Wekselblatt	DP6	GG20	820.10
Theme F: Cognition and Behavior	Age-related compensation during motor imagery: A multimodal study	Hana Burianova	DP7	SS1	839.18
Theme F: Cognition and Behavior	Rejuvenating the dentate gyrus with stage-specific expansion of adult-born neurons to enhance memory precision in adulthood and aging	Kathleen McAvoy	DP8	UU15	847.19
Theme G: Novel Methods and Technology Development	A set of herpes simplex virus type 1 recombinants for use in neural circuit tracing	Jessica Brooks	DP9	UU66	850.03
Theme G: Novel Methods and Technology Development	Functional connectivity hubs in the conscious marmoset monkey	Annabelle Belcher	DP10	UU81	850.18

Notes

Complete Session Listing

Wednesday AM

SPECIAL LECTURE *Walter E. Washington Convention Center*

662. Exocytosis of Synaptic Vesicles — A Molecular Perspective — CME

Wed. 8:30 AM - 9:40 AM — Hall D

Speaker: R. JAHN, *Max Planck Inst. for Biophysical Chem., Germany*

Neurotransmitter release from neurons is mediated by Ca^{2+} -dependent exocytosis of synaptic vesicles. The molecular machinery involves SNARE proteins that carry out membrane fusion together with other conserved proteins such as SM and CATCHR. Furthermore, specialized proteins such as synaptotagmins and complexins convey Ca^{2+} regulation. Jahn will discuss new insight on the mechanisms by which these proteins mediate membrane fusion at the synapse.

such as anxiety, autism, and schizophrenia rooted in alterations of critical periods in the development of these circuits? This symposium explores developmental origins of mental health and illness at many levels, ranging from molecular and cellular to systems and behavioral studies, using data from mice, monkeys, and humans.

8:30 **664.01** Introduction.

8:35 **664.02** Order and disorder in the developing emotional brain. R. J. DAVIDSON. *Univ. of Wisconsin-Madison*.

9:10 **664.03** Risk for anxiety and implications for treatment: Developmental, environmental, and genetic factors governing fear regulation. B. J. CASEY. *Weill Cornell Med. Col.*

9:45 **664.04** Balancing plasticity/stability across brain development. T. K. HENSCH. *Harvard University, Boston Children's Hosp.*

10:20 **664.05** • Understanding neurodevelopmental disorders via integrative genomics and neurobiology. D. GESCHWIND. *UCLA*.

10:55 **664.06** Closing Remarks.

SYMPOSIUM *Walter E. Washington Convention Center*

663. Infiltration of Innate Immune Cells Into the Injured, Infected, or Inflamed Brain — CME

Wed. 8:30 AM - 11:00 AM — Ballroom B

Chair: C. L. HOWE

Innate immune cells such as monocytes, neutrophils, dendritic cells, and mast cells play a fundamental role in neurologic diseases, from infection and epilepsy to traumatic brain injury and multiple sclerosis. There is a need for better understanding of the mechanisms that these cells enter the central nervous system, the effector functions utilized by these cells on arrival in the brain, and the interactions initiated by these cells with brain-resident immune cells.

8:30 **663.01** Introduction.

8:35 **663.02** *In vivo* dynamics of innate immune sentinels in the CNS. D. MCGAVERN. *NIH*.

9:10 **663.03** The meninges: Unconventional sites of immune activity that set the stage for CNS inflammatory disease. M. BROWN. *Northwestern*.

9:45 **663.04** Dendritic cells as key regulators of CNS inflammation. Z. FABRY. *Univ. Wisconsin*.

10:20 **663.05** Brain-infiltrating inflammatory monocytes injure the brain and induce seizures during acute virus infection of the CNS. C. HOWE. *Mayo Clin*.

10:55 **663.06** Closing Remarks.

SYMPOSIUM *Walter E. Washington Convention Center*

665. OdorSpace: Deciphering Stimulus Space in Olfaction — CME

Wed. 8:30 AM - 11:00 AM — Ballroom C

Chair: N. SOBEL

Neural coding of color and pitch was probed by titrating light and sound along the physical axes of wavelength and frequency respectively. However, how can we meaningfully probe the neural coding of smell? What is a meaningful olfactory axis? Without this, there is no meaningful way to probe olfaction. This symposium features efforts to reach at such olfactory axes through the study of insects, rodents, genes, and human behavior and perception.

8:30 **665.01** Introduction.

8:35 **665.02** Understanding olfactory stimulus space through behavior, perception, and neural recordings in humans. N. SOBEL. *Weizmann Inst. of Sci.*

9:10 **665.03** Understanding olfactory stimulus space through social behavior and neural representation in rodents. L. STOWERS. *Scripps Res. Inst.*

9:45 **665.04** Understanding olfactory stimulus space through behavior and neural representation in insects. B. S. HANSSON. *Max Planck Inst. for Chem. Ecology*.

10:20 **665.05** Digitizing olfaction: Using receptor responses to map odor space. J. D. MAINLAND. *Monell Chem. Senses Ctr*.

10:55 **665.06** Closing Remarks.

SYMPOSIUM *Walter E. Washington Convention Center*

664. Nature, Nurture, and Trajectories to Mental Health — CME

Wed. 8:30 AM - 11:00 AM — Ballroom A

Chair: T. K. HENSCH

How do genetic and environmental forces coalesce to shape neural circuits that control sensation, emotion, and cognition? To what extent are symptoms of mental disorders

* Indicated a real or perceived conflict of interest, see page 153 for details.

▲ Indicates a high school or undergraduate student presenter.

MINISYMPOSIUM *Walter E. Washington Convention Center*

666. **Imaging and Segmentation of Hippocampal Subfields in Humans: Relevance to Cognition and Disease** — CME

Wed. 8:30 AM - 11:00 AM — 145B

Chair: G. A. KERCHNER

Co-Chair: P. YUSHKEVICH

The hippocampus is composed of discrete subfields that contribute differentially to memory processing and exhibit selective vulnerability to illnesses like Alzheimer's disease. Advanced high-resolution imaging has fueled recent studies of hippocampal subfields in humans. In this minisymposium, presenters will showcase new insight into the human hippocampus, including how it functions normally to subserve memory, how it degenerates in disease, and what challenges and opportunities lay ahead.

8:30 **666.01** Introduction.

8:35 **666.02** Advances in neuroimaging of human hippocampal subfields. M. YASSA. *Univ. of California, Irvine*.

8:55 **666.03** A quantitative comparison of existing subfield segmentation protocols: Is unification possible? P. YUSHKEVICH. *Univ. of Pennsylvania*.

9:15 **666.04** Probabilistic localization with *ex vivo* MRI, surface based mapping, and histology. J. AUGUSTINACK. *Massachusetts Gen. Hosp.*

9:35 **666.05** High-resolution functional MRI methods for investigating the role of the hippocampus in human memory. N. SUTHANA. *UCLA*.

9:55 **666.06** Multivariate techniques coupled with high-resolution hippocampal imaging provide novel insight into human episodic memory. A. EKSTROM. *UC-Davis Cntr. For Neurosci.*

10:15 **666.07** 7-Tesla imaging of hippocampal strata: Relevance to cognition and Alzheimer's disease. G. KERCHNER. *Stanford Univ.*

10:35 **666.08** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

667. **Is There a Neurobiological Basis for Food Addiction?** — CME

Wed. 8:30 AM - 11:00 AM — 146AB

Chair: I. E. DE ARAUJO

Co-Chair: R. DILEONE

This minisymposium discusses the mechanisms that high-calorie foods affect and alter dopamine pathways, allowing for the emergence of inflexible and compulsive eating behaviors. The presenters will provide an in-depth coverage of the latest research on the identity of the physiological factors and neural circuits linking metabolic signaling to dopamine/striatal function.

8:30 **667.01** Introduction.

8:35 **667.02** Impact of excess calorie intake on striatal function, and the emergence of inflexible eating behaviors. I. DE ARAUJO. *The J.B. Pierce Laboratory/Yale Univ.*

8:55 **667.03** Vitamin D: A non-caloric dietary factor influencing dopamine circuit function, body weight, and drug addiction. R. DILEONE. *Yale Univ. Sch. Med.*

9:15 **667.04** Short-term consumption of high fat food increases long lasting excitatory synaptic transmission onto VTA dopamine neurons. S. BORGLAND. *Univ. of Calgary*.

9:35 **667.05** Hypothalamic glucosensing for sugar reward. A. I. DOMINGOS. *The Gulbenkian Sci. Inst.*

9:55 **667.06** Behavioral and neurochemical evidence of dependence on palatable foods. N. M. AVENA. *Columbia Univ.*

10:15 **667.07** Lipid modulation of feeding and reward function. S. E. FULTON. *CRCHUM*.

10:35 **667.08** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

668. **Transgenic Primate Models of Human Brain** — CME

Wed. 8:30 AM - 11:00 AM — 151AB

Chair: J. H. REYNOLDS

Co-Chair: P. P. MITRA

One of the mouse model's great strengths is its array of genetic tools available for probing the brain. However, there are considerable anatomical, physiological and behavioral differences between mice and humans that, in some areas of inquiry, limit the degree that insight derived from the mouse can be applied to understanding the human brain. This minisymposium will outline recent developments that make it feasible to apply genetic tools borrowed from the mouse to the nonhuman primate.

8:30 **668.01** Introduction.

8:35 **668.02** The marmoset as a model organism for active vision and visual neuroscience. J. F. MITCHELL. *The Salk Inst.*

8:55 **668.03** Transgenic marmoset models of brain function and cerebrovascular disorders. A. C. SILVA. *NIH*.

9:15 **668.04** Molecular imaging of the marmoset brain by positron emission tomography (PET). C. YOKOYAMA. *RIKEN Ctr. For Life Sci. Technologies (CLST)*.

9:35 **668.05** Large-scale multimodal mapping of the marmoset cerebral cortex. M. G. ROSA. *Monash Univ.*

9:55 **668.06** ● Genome engineering: Technologies and applications. F. ZHANG. *MIT*.

10:15 **668.07** ● Transgenic marmosets for modeling human neurological and psychiatric disorders. H. OKANO. *Keio Univ. Sch. of Med.*

10:35 **668.08** Closing Remarks.

SPECIAL LECTURE *Walter E. Washington Convention Center*

669. ● **The Sensory Neurons of Touch** — CME

Wed. 11:30 AM - 12:40 PM — Hall D

Speaker: D. D. GINTY, *Harvard Med. School, Howard Hughes Med. Inst.*

The somatosensory system endows us with enormous capacity for object recognition, texture discrimination, sensory-motor feedback, and social exchange. Innocuous touch of the skin is detected by physiologically distinct low-threshold mechanosensory neurons (LTMRs). Ginty's research team has amassed a genetic toolbox that enables interrogation of the physiology, morphology, and function of LTMR subtypes and their synaptic target neurons in the spinal cord. Ginty will discuss morphological and physiological features of LTMRs and the organizational logic of LTMR projections and circuits in the central nervous system.

NANOSYMPOSIUM

670. Complex Neurodegenerative Pathologies

Theme C: Disorders of the Nervous System

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

- 8:00 **670.01** Discovery of a dual therapeutic approach for preventing or slowing the progression of Alzheimer's disease (AD). J. A. SCHETZ*; S. KIM; A. M. TUTTLE; D. DALWADI; C. BORSAN; G. BEATON; S. B. RAVULA; F. C. TUCCI. *Univ. N Texas Hlth. Sci. Ctr., Inst. for Aging and Alzheimer's Dis. Res., Epigen Biosci. Inc.*
- 8:15 **670.02** CypD deficiency attenuates mitochondrial and synaptic dysfunction and cognitive decline in STZ-induced type 1 diabetic mouse model. L. WU*; S. YAN; F. DU; J. VANGAVARAGU; S. YAN. *Univ. of Kansas.*
- 8:30 **670.03** Chronic oxotremorine treatment ameliorates depressive phenotype in a rodent model of Alzheimer's disease. D. V. NAIR*; M. M. AL-BADRI; H. PENG; N. SCHENKMAN; J. PACHECO-QUINTO; C. B. ECKMAN; D. IACONO; E. A. ECKMAN. *Atlantic Hlth. Systems, Morristown, NJ and Biomed. Res. Inst. of New.*
- 8:45 **670.04** Hedgehog antagonist, Cyclopamine, inhibits γ -secretase-mediated cleavage of APP by altering retrograde trafficking of endocytosed APP C-terminal fragments. A. G. VOROBYEVA*; R. LEE; S. MILLER; P. KANDELWAL; G. DISTEFANO; A. GANGEMI; D. MARENDA; A. SAUNDERS. *Drexel Univ., Drexel Univ.*
- 9:00 **670.05** Regulation of brain insulin signaling by apolipoprotein E in a mouse model of Alzheimer's disease. B. WONG*; E. CHAN. *Natl. Univ. of Singapore.*
- 9:15 **670.06** Cerebrovascular and Alzheimer's pathologies in mouse models of mixed dementia. H. M. BROTHERS*; C. LATTA; T. L. SUDDUTH; K. BRAUN; E. M. WEEKMAN; D. M. WILCOCK. *Sanders-Brown Ctr. On Aging, Univ. of Kentucky.*
- 9:30 **670.07** • The Parkinson's disease-related protein LRRK2 is a novel tau kinase. J. M. LEWIS*; R. M. BAILEY; J. COVY; M. J. HAMM; D. W. DICKSON; B. I. GIASSON. *Univ. of Florida, Univ. of Florida, Stanford, Mayo Clin.*
- 9:45 **670.08** Oxidative stress-mediated activation of extracellular signal-regulated kinase contributes to mild cognitive impairment-related mitochondrial dysfunction. X. GAN; L. WU; S. HUANG; F. DU; C. ZHONG; Y. WANG; H. YU; R. H. SWERDLOW; J. X. CHEN; S. YAN*. *Univ. of Kansas, Sichuan Univ., Univ. of Kansas Med. Ctr., Mem. Sloan-Kettering Cancer Ctr.*

NANOSYMPOSIUM

671. Alzheimer's Disease: Experimental Therapeutics I

Theme C: Disorders of the Nervous System

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

- 8:00 **671.01** Effects and mechanism of action of estren on beta amyloid-induced cholinergic and behavioural deficits. A. KWAKOWSKY*; K. POTAPOV; S. KIM; K. PEPPERCORN; W. P. TATE; I. M. ABRAHAM. *Univ. of Otago, Univ. of Otago, Univ. of Pecs.*

- 8:15 **671.02** UCHL1 inhibits app processing and delays Alzheimer progression *in vivo*. M. ZHANG*; F. CAI; S. ZHANG; S. ZHANG; W. SONG. *The Univ. of British Columbia.*
- 8:30 **671.03** Lamotrigine attenuates Alzheimer's pathology in app/ps1 transgenic mice. Q. MA*. *Soochow Univ.*
- 8:45 **671.04** • The case for using a papain-like cysteine protease inhibitor as an Alzheimer's disease therapeutic. G. R. HOOK*; S. JACOBSEN; M. KINDY; V. HOOK. *ALSP, Inc., AstraZeneca, Applied Neurotechnology, Inc., Med. Univ. of South Carolina, UCSD.*
- 9:00 **671.05** • The plaque specific antibody mE8c initiates a robust, M2b polarized neuroinflammatory response with enhanced beta-amyloid clearance relative to the N-terminal antibody 3D6. T. L. SUDDUTH*; E. M. WEEKMAN; M. M. RACKE; J. T. HOLE; J. A. TZAFERIS; R. B. DEMATTOS; D. M. WILCOCK. *University of Kentucky, Univ. of Kentucky, Eli Lilly and Co.*
- 9:15 **671.06** Tau deletion exacerbates age-dependent deficits in the hippocampus and substantia nigra and is corrected by DHA and ALA supplementation. Q. MA*; X. ZUO; F. YANG; E. TENG; S. FRAUTSCHY; G. COLE. *UCLA, GRECC (VA).*
- 9:30 **671.07** DR-induced cognitive enhancement in Alzheimer's disease model mice, 5xFAD, and underlying mechanisms. Z. YANG*; T. KUBOYAMA; C. TOHDA. *Instit of Natural Medicine, Univ. of Toyama.*
- 9:45 **671.08** • Pharmacological inhibition or genetic deletion of both BACE1 and BACE2 results in hypopigmentation in the mouse. M. E. KENNEDY*; L. A. HYDE; L. STAHL; M. SMITH; D. LEVITAN; Y. LIN; B. WEIG; L. CHEN; K. BECKER; S. WHITE-HUNT; R. L. PEIFFER; B. A. MATTSO; B. CHEEWATRAKOOLPONG; T. WISNIEWSKI; M. KAVANA; R. TERRY; K. TANIS; J. SCOTT; J. CUMMING; E. M. PARKER. *Merck Res. Labs, Merck Res. Labs, Merck Res. Labs, Merck Res. Labs, Merck Res. Labs, Merck Res. Labs, Merck Res. Labs, Merck Res. Labs.*

NANOSYMPOSIUM

672. Ischemia: Neuroprotection

Theme C: Disorders of the Nervous System

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

- 8:00 **672.01** Pyrrolidine dithiocarbamate extends the therapeutic window of tissue plasminogen activator in rat. Z. ZUO*. *Unvi of VA.*
- 8:15 **672.02** Anti-ischemic properties of NMDA receptor inhibitor and GABA-A receptor modulator, pregnanolone glutamate, in immature rats. L. RAMBOUSEK*; G. TSENOV; L. KLETECKOVA; K. VONDRAKOVA; K. VALES. *Univ. of Zurich, Inst. of Pharmacol. and Toxicology, Inst. of Physiology, AS CR v.v.i., 2nd Fac. of Medicine, Charles Univ.*
- 8:30 **672.03** NADPH oxidase is critical for the protective effects of ischemic postconditioning against stroke. H. ZHAO*; S. JOO; Y. FAN; W. XIE. *Stanford Univ., Stanford Univ.*
- 8:45 **672.04** Ischemic post-conditioning by targeting mitochondria improved outcome of stroke in rat. I. RUTKAI*; S. DUTTA; P. V. G. KATAKAM; D. W. BUSIJA. *Tulane Univ.*
- 9:00 **672.05** Functional neuroprotection for the ischemic neonatal brain with Ips preconditioning. R. ASKALAN*; M. A. PERRY; A. TASKER. *Hosp. For Sick Children Res. Inst., Univ. of Prince Edward Island.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:15 **672.06** Targeted complement inhibition reduces cerebral ischemia-reperfusion injury and improves functional outcome in sub-acute phase of murine ischemic stroke. A. M. ALAWIEH*; A. ELVINGTON; H. ZHU; J. YU; C. ATKINSON; M. KINDY; S. TOMLINSON. *Med. Univ. of South Carolina, Med. Univ. of South Carolina.*
- 9:30 **672.07** • Rewarming from therapeutic hypothermia induces apoptosis of cortical neurons in a swine model of neonatal hypoxic-ischemic encephalopathy. B. WANG*; J. LEE; J. ARMSTRONG; M. REYES; E. KULIKOWICZ; D. SPICER; U. BHALALA; Z. YANG; R. KOEHLER; M. LEE; J. LEE-SUMMERS. *Johns Hopkins Univ. Sch. of Med.*
- 9:45 **672.08** Therapeutic interventions in a mouse model of cerebral palsy. D. FEATHER-SCHUSSLER*; N. MCCORMACK; H. DYKSTRA; W. CHILDERS; B. BLASS; M. ABOU-GHARBIA; S. RAWLS; S. H. RAMIREZ; T. S. FERGUSON. *Temple Univ., Temple Univ., Moulder Ctr. for Drug Discovery Res. - Temple Univ., Temple Univ., Shriners Hosp. for Children Pediatric Res. Ctr. - Temple Univ.*
- 10:00 **672.09** Estrogen receptor beta regulates inflammasome activation in the hippocampus of female rats. A. P. RAVAL*; H. H. PATEL; F. J. BRAND III; H. BRAMLETT; J. DE RIVERO VACCARI. *Univ. of Miami, Univ. of Miami.*
- 10:15 **672.10** Neuronal overexpression of the mitochondrial protein prohibitin1 is markedly neuroprotective after focal cerebral ischemia. A. KAHL*; C. ANDERSON; G. MANFREDI; C. IADECOLA; P. ZHOU. *Weill Cornell Med. Sch.*
- 10:30 **672.11** Protease-activated anti-inflammation therapy for ischemic stroke involves NF kappa B and Caspase 8 signaling pathways in the penumbra area. S. ZHANG*; L. KOJIC; Y. WEN; D. QIANG; F. MORIN; M. S. CYNADER; W. JIA. *Brain Res. Ctr., Brain Res. Ctr.*
- 10:45 **672.12** RAGE activation-mediated neuroinflammation aggravates subarachnoid hemorrhage (SAH)-associated pial arteriolar dilating dysfunction and neuropathy in rats. H. XU*; C. PAISANSATHAN; Y. WU; F. TESTAI; D. PELLIGRINO. *Univ. Illinois Chicago, Univ. Illinois Chicago.*
- 9:00 **673.05** Pyramidal neurons in the medial prefrontal cortex of HIV-1 transgenic rats display over-excitation. C. KHODR*; S. DAVE*; L. AL-HARTHI; X. HU. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr., The Developmental Ctr. for AIDS Res.*
- 9:15 **673.06** Characterization of mitochondrial respiration in diazoxide preconditioned neurons. S. DUTTA*; I. RUTKAI; P. V. KATAKAM; D. W. BUSIJA. *Tulane Univ. Sch. of Med.*
- 9:30 **673.07** Recruitment of NOS1AP by nNOS contributes to activation of p38MAPK and cell death in models of excitotoxic neurodegeneration. M. J. COURTNEY*; W. BA; N. NADIF KASRI; L. LI. *Univ. of Eastern Finland, Donders Inst. for Brain, Cognition, and Behaviour.*
- 9:45 **673.08** Transgenic β -Galactosidase expression in the brain is NOT inert for your mouse model. J. M. REICHEL*; B. BEDENK; C. KAO; C. TURCK; M. CZISCH; J. M. DEUSSING; C. T. WOTJAK. *Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry.*
- 10:00 **673.09** The expression of the neuroprotective protein prohibitin during ischemic preconditioning requires nitric oxide. L. QIAN; C. J. ANDERSON; E. PARK; G. MANFREDI; C. IADECOLA; P. ZHOU*. *Weill Med. Coll Cornell Univ.*
- 10:15 **673.10** Geldanamycin induces FOXO3a-dependent motor neuron apoptosis. C. N. DENNYS*; A. STRAYER; M. FRANCO; A. G. ESTEVEZ. *UCF, Weill Cornell Med. Col.*
- 10:30 **673.11** Single-cell imaging of bioenergetic responses to neuronal excitotoxicity and oxygen and glucose deprivation. N. M. CONNOLLY*; H. DUESSMANN; U. ANILKUMAR; H. J. HUBER; J. H. M. PREHN. *Royal Col. of Surgeons In Ireland, KU Leuven.*
- 10:45 **673.12** Nanomedicine for Central Nervous System: Polymeric nanoparticles for therapeutic strategies in neurological disorders. G. TOSI*; B. RUOZI; D. BELLETTI; P. VERATTI; F. PEDERZOLI; M. ZOLI; A. VILELLA; A. M. GRABRUCKER; H. S. SHARMA; A. SHARMA; M. A. VANDELLI; F. FORNI. *Te.far.t.i, Dept of Life Sciences, Univ. of Modena and Reggio Emilia, Univ. of Modena and Reggio Emilia, Univ. of Modena and Reggio Emilia, Neurocenter of Ulm Univ., Uppsala Univ. Hosp., Uppsala Univ. Hosp.*

NANOSYMPOSIUM

673. Metabolic and Excitotoxic Mechanisms of Cell Death and Degeneration

Theme C: Disorders of the Nervous System

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

- 8:00 **673.01** The effect of CD3 in excitotoxic dendritic degeneration of the mouse retina. K. HUANG*; P. WANG; N. TIAN. *Univ. of Utah.*
- 8:15 **673.02** • PARP-1 activation increases Ca^{2+} -permeable AMPA receptors in the CA1 region of hippocampal pyramidal cells and causes selective and delayed neuronal death. F. MORONI*; E. GERACE; A. MASI; F. RESTA; R. FELICI; E. LANDUCCI; T. MELLO; D. E. PELLEGRINI-GIAMPIETRO; G. MANNAIONI. *Univ. of Florence, Univ. of Florence.*
- 8:30 **673.03** Essential roles of NF- κ B in cytokine mediated neuroprotection in normal and ATM-deficient neurons. T. HUI*; K. HERRUP. *Hong Kong Univ. of Sci. and Technol., Rutgers Univ.*
- 8:45 **673.04** Differential impact of physiological and excitotoxicity-induced NF- κ B activation on ankyrinG expression. H. KOENIG*; R. F. SCHWAMBORN; J. H. M. PREHN. *Royal Col. of Surgeons In Ireland.*

NANOSYMPOSIUM

674. Extrastriate Cortex: Neural Coding

Theme D: Sensory and Motor Systems

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

- 8:00 **674.01** Population coding of motion direction in marmoset area MT is rapid and sustained. E. ZAVITZ*; S. HAGHGOOIE; H. YU; A. J. DAVIES; M. G. P. ROSA; N. S. C. PRICE. *Monash Univ.*
- 8:15 **674.02** Separability of spatiotemporal receptive field structure in macaque area MT. A. D. ZAHARIA*; R. L. T. GORIS; J. A. MOVSHON; E. P. SIMONCELLI. *New York Univ.*

- 8:30 **674.03** Orientation and hue maps in V4: Features and interactions. D. J. FELLEMAN*; A. PARAJULI. *Univ. Texas Med. Sch., Univ. of Texas Med. School-Houston.*
- 8:45 **674.04** Microstimulation in V1 and V4 reveals asymmetric feedforward and feedback influences in texture-segregation. P. R. ROELFSEMA*; M. GARIEL-MATHIS; B. DAGNINO. *Netherlands Inst. for Neurosci.*
- 9:00 **674.05** Differences between central and peripheral visual fields' feedforward and feedback neural connections: Theoretical and empirical studies of perceptual decoding. L. ZHAOPING*. *Univ. Col. London.*
- 9:15 **674.06** Early visual cortex consistently estimates border-ownership in simple figures and natural scenes. J. WILLIFORD*; R. VON DER HEYDT. *Johns Hopkins Univ., Johns Hopkins Univ.*
- 9:30 **674.07** Microcircuits for hierarchical coding of object-object association across inferotemporal areas of macaques. T. HIRABAYASHI*; K. TAMURA; D. TAKEUCHI; M. TAKEDA; K. W. KOYANO; Y. MIYASHITA. *The Univ. Tokyo Sch. Med., CREST, JST, CNSI, NINS.*
- 9:45 **674.08** A gradual increase of face-selectivity along the human ventral visual pathway: direct evidence from intracerebral recordings with fast periodic visual stimulation. J. JONAS*; J. LIU-SHUANG; C. JACQUES; L. MAILLARD; B. ROSSION. *Service de Neurologie, Hop. Central, CHU de Nancy, Catholic Univ. of Louvain (UCL).*
- 10:00 **674.09** Organizing principles of phase-invariant selectivity along curved contours in mid-level vision. T. O. SHARPEE*; R. J. ROWEKAMP. *The Salk Inst. For Biol. Studies.*
- 10:15 **674.10** A retinotopic basis for the division of category selectivity into lateral and ventral regions. E. H. SILSON*; A. W. Y. CHAN; D. J. KRAVITZ; C. I. BAKER. *Natl. Inst. of Mental Hlth., The George Washington Univ.*
- 9:15 **675.06** RNA-sequencing after translating ribosomal affinity purification (TRAP) identifies *in vivo* gene expression differences in CA3 neurons of mice subjected to early life stress (ELS). J. D. GRAY*; T. G. RUBIN; B. S. MCEWEN. *The Rockefeller Univ.*
- 9:30 **675.07** Poor maternal care impacts the development of prefrontal cortex, cognitive function and social behavior in nonhuman primates: The juvenile period. M. SANCHEZ*; D. GUZMAN; B. R. HOWELL; T. L. VRATANINA-SMOOT; K. M. MCCORMACK; Y. SHI; M. STYNER; J. BACHEVALIER; D. I. SHARPE. *Emory Univ., Emory Univ., Olivet Col., Spelman Col., Univ. of North Carolina, Univ. of Georgia.*
- 9:45 **675.08** Behavioral, biological, and epigenetic consequences of different early social experiences in rhesus macaques. S. J. SUOMI; D. P. FRIEDMAN*; A. J. BENNETT. *Natl. Inst. on Child Hlth. and Human Develop., Wake Forest Univ. Sch. Med., Univ. of Wisconsin-Madison.*
- 10:00 **675.09** Direct and intergenerational effects of childhood trauma: Physiological, neuroimaging, and epigenetic correlates. K. J. RESSLER*; T. JOVANOVIĆ; J. STEVENS; T. KLENGEL; A. SMITH; E. BINDER; B. BRADLEY. *Emory Univ., Emory Univ., Max Planck Inst.*
- 10:15 **675.10** Early-life stress, adolescent brain development, and the emergence of depression. N. B. ALLEN*; S. WHITTLE; M. DENNISON; N. VIJAYAKUMAR. *Univ. Melbourne.*
- 10:30 **675.11** Child maltreatment and corticostriatolimbic development in adolescence: Effects of maltreatment subtype and gender. E. T. COX*; F. WANG; J. JOHNSTON; L. SPENCER; C. M. MAZURE; R. SINHA; L. MAYES; H. P. BLUMBERG. *Yale Univ.*
- 10:45 **675.12** Decrease in reward-related ventral striatum reactivity during adolescence reflects early life stress and predicts depressive symptomatology. J. L. HANSON*; D. E. WILLIAMSON; A. R. HARIRI. *Duke Univ., Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Duke Univ.*
- 11:00 **675.13** Human chromosomal modification associated with early-life stress induced adolescent depression and nucleus accumbens hyporeactivity. B. GOFF*; L. GABARD-DURNAM; D. G. GEE; J. FLANNERY; D. S. LUMIAN; D. S. FARERI; C. J. CALDERA; N. TOTTENHAM. *UCLA, Univ. of Oregon.*

NANOSYMPOSIUM

675. The Neurobiological Sequelae of Early-Life Stress

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

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

- 8:00 **675.01** Early-life stress and its impact on the adolescent amygdala. S. L. KIGAR*; A. P. AUGER. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*
- 8:15 **675.02** Stress during adolescence exerts distinct effects on excitatory drive of basolateral amygdala. J. ROSENKRANZ*; M. PADIVAL. *The Chicago Med. School/RFUMS.*
- 8:30 **675.03** Effects of caregiver maltreatment on adolescent fear-related behavior and CNS DNA methylation. T. S. DOHERTY*; T. L. ROTH. *Univ. of Delaware.*
- 8:45 **675.04** Influence of maternal presence on amygdala electrical activity in infancy with early life trauma. E. C. SARRO*; D. A. WILSON; R. M. SULLIVAN. *New York Univ., Emotional Brain Inst., Child and Adolescent Psychiatry, NYU Child Study Ctr., Child and Adolescent Psychiatry, NYU Child Study Ctr., Neurosci. and Physiol., Neurosci. and Physiol.*
- 9:00 **675.05** Dynamic sex differences during PFC maturation and their disruption by chronic stress. A. B. RODGERS*; K. E. MORRISON; T. L. BALE. *Univ. of Pennsylvania.*

NANOSYMPOSIUM

676. Biological Rhythms and Sleep: Mechanisms

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

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

- 8:00 **676.01** Regulation of the sleep/wake cycle in *Drosophila* by dADAR and its effectors. J. E. ROBINSON*; M. WU; W. J. JOINER. *Univ. of California San Diego.*
- 8:15 **676.02** Brain temperature and wide-band electrical brain activity in a zebra finch during sleep. A. L. VYSSOTSKI*; A. E. STEPIEN. *Inst. of Neuroinformatics, Univ. of Zurich and ETH Zurich.*
- 8:30 **676.03** Developmental defects in the Lhx1-deficient SCN give insight into circadian physiology. J. L. BEDONT*; T. LEGATES; E. SLAT; M. BYERLY; G. WONG; E. HERZOG; S. HATTAR; S. BLACKSHAW. *Johns Hopkins Med. Inst., Johns Hopkins Univ., Washington Univ. in St. Louis.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:45 **676.04** Feedback of locomotor activity to the suprachiasmatic nuclei and neural circadian system. A. T. HUGHES*; R. E. SAMUELS; M. D. C. BELLE; S. WEGNER; H. D. PIGGINS. *Univ. of Manchester*.
- 9:00 **676.05** The Q175 mouse model of Huntington's disease shows decline in circadian rhythms of SCN electrical activity. T. KUDO*; C. COLWELL. *UCLA*.
- 9:15 **676.06** Preoptic hypothalamus modulation of sleep. S. CHUNG*; F. WEBER; W. CHANG; A. CETIN; Y. DAN. *UC Berkeley, Allen Inst. for Brain Sci.*
- 9:30 **676.07** Gaba excites some MCH neurons and inhibits others. A. ZAYACHKIVSKY; D. J. SPERGEL*; A. N. VAN DEN POL. *Yale Univ. Sch. Med.*
- 9:45 **676.08** Imaging sleep-wake activity in identified pontine cell populations. J. M. COX*; L. PINTO; Y. DAN. *UC, Berkeley, UC, Berkeley, UC, Berkeley, Howard Hughes Med. Inst.*
- 10:00 **676.09** Characterizing complexity of intracortical interaction. S. TAJIMA*; T. TOYOIZUMI. *RIKEN*.
- 10:15 **676.10** Slow-wave activity during non-REM sleep is associated with cerebral metabolic rate during sleep and wakefulness. K. A. WILCKENS*; E. A. NOFZINGER; J. A. JAMES; A. GERMAIN; H. J. AIZENSTEIN; G. J. SIEGLE; D. J. BUYSSE. *Univ. of Pittsburgh*.
- 10:30 **676.11** Involvement of phasic brainstem activity in the preferential anterior-to-posterior direction of traveling cortical slow waves in human sleep EEG. E. J. W. VAN SOMEREN; G. PIANTONI; D. STOFFERS*; Y. D. VAN DER WERF; T. DANG-VU; P. MAQUET. *Netherlands Inst. For Neurosci., Massachusetts Gen. Hosp., Netherlands Inst. For Neurosci., Netherlands Inst. For Neurosci., Concordia Univ., Univ. of Liège*.
- 10:45 **676.12** Brain structure and large-scale psychometrics point to different subtypes of insomnia. E. J. VAN SOMEREN*; J. BENJAMINS; D. STOFFERS; T. HOEKSTRA; F. MIGLIORATI; M. VAN TOL; J. W. R. TWISK. *Netherlands Inst. For Neurosci., VU Univ. and Med. Ctr., VU Univ. Med. Ctr., NeuroImaging Center, Univ. Med. Ctr.*
- 11:00 **676.13** Losing control: The neural basis of affective regulation without sleep. E. B. SIMON*; H. SHARON; N. OREN; A. KIRSCHNER; N. GOLDWAY; T. HENDLER. *Functional Brain Ctr., Tel Aviv Univ.*
- 8:15 **677.02** Oligodendrocyte precursor cell-derived transforming-growth factor- β 1 supports blood-brain barrier during development. T. MAKI*; J. SEO; M. MAEDA; A. C. LIANG; K. ITOH; J. LOK; A. TAGUCHI; T. MATSUYAMA; M. IHARA; K. KIM; E. H. LO; K. ARAI. *Massachusetts Gen. Hosp., NeuroVascular Coordination Res. Center, Col. of Pharmacy, Seoul Natl. Univ., Dept. of Regenerative Medicine, Inst. of Biomed. Res. and Innovation, Lab. of Neurogenesis and CNS Repair, Inst. for Advanced Med. Science, Hyogo Col. of Med., Dept. of Stroke and Cerebrovascular Diseases, Natl. Cerebral and Cardiovasc. Ctr.*
- 8:30 **677.03** Impairment of the blood-retina barrier and degeneration of the retinal pigment epithelium upon loss-of-functions of Ranbp2 and a subset of its Ran-GTP-binding domains. P. A. FERREIRA*; H. PATIL; A. SAHA; E. SENDA; K. CHO; M. HAQUE; M. YU; S. QIU; D. YOON; N. PEACHEY. *Duke Univ. Med. Ctr., Duke Univ. Med. Ctr., Cleveland Clin. Fndn.*
- 8:45 **677.04** General anesthesia-induced blood-brain barrier breakdown: Potential role in delirium. A. SARKAR*; N. K. ACHARYA; M. KOSCIUK; J. DASH; C. HALE; E. GOLDWATER; C. JOHNSON; G. GODSEY; C. DEMARSHALL; M. FORSBURG; R. NAGELE. *Rowan Univ., New Jersey Inst. for Successful Aging, Grad. Sch. of Biomed. Sciences, Rowan Univ., Sch. of Osteo. Medicine, Rowan Univ., Durin Technologies, Inc.*
- 9:00 **677.05** Evidence for increased microglial priming and macrophage recruitment in the dorsal anterior cingulate white matter of depressed suicides. S. G. TORRES PLATAS*; C. CRUCEANU; G. CHEN; J. DEVORAK; G. TURECKI; N. MECHAWAR. *Douglas Mental Hlth. Univ. Institute, McGill Univ., Douglas Mental Hlth. Univ. Institute, McGill Univ., Douglas Mental Hlth. Univ. Institute, McGill Univ.*
- 9:15 **677.06** Endothelial tight junctions are altered in cerebral adrenoleukodystrophy. P. L. MUSOLINO*; S. L. JIMENEZ; Y. GONG; J. M. SNYDER; M. P. FROSCH; F. S. EICHLER. *MGH/Harvard, MGH/Harvard*.
- 9:30 **677.07** ● Comparative safety profile for the delivery of agents to the brain by magnetic resonance-guided focused ultrasound versus stereotactic needle insertion in adult rats. M. C. TUCCI*; A. BURGESS; M. A. O'REILLY; K. HYNENEN. *Sunnybrook Res. Inst.*
- 9:45 **677.08** The delivery of immunoglobulins to the brain by focused ultrasound guided by magnetic resonance imaging: a therapeutic approach to Alzheimer's disease. S. DUBEY*; A. BURGESS; J. MCLAURIN; D. BRANCH; K. HYNENEN; I. AUBERT. *Sunnybrook Res. Inst., Univ. of Toronto, Sunnybrook Res. Inst., Univ. of Toronto*.
- 10:00 **677.09** Focused ultrasound-mediated antibody delivery through the blood-brain barrier for detection and treatment of Alzheimer's disease. A. BURGESS*; S. DUBEY; K. SHAH; E. BOLEWSKA-PEDYCZAK; I. AUBERT; J. GARIEPY; K. HYNENEN. *Sunnybrook Res. Inst., Sunnybrook Res. Inst., Univ. of Toronto, Univ. of Toronto*.

NANOSYMPOSIUM

677. Blood Brain Barrier: Development and Disease

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

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

- 8:00 **677.01** ▲ Transforming growth factor- β induces matrix metalloproteinase-2 and -9 activation in human brain pericyte. Y. TAKAHASHI*; T. MAKI; A. C. LIANG; K. ITOH; J. LOK; N. OSUMI; K. ARAI. *Tohoku Univ. Sch. of Med., Massachusetts Gen. Hosp. and Harvard Med. Sch., Tohoku Univ. Sch. of Med.*

NANOSYMPOSIUM

678. Human Reinforcement Learning: Neural Mechanisms

Theme F: Cognition and Behavior

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

- 8:00 **678.01** Heterogeneity of ventromedial prefrontal cortex activity in flexible reward learning. Z. ZHANG*; A. MENDELSON; K. MANSON; D. SCHILLER; I. LEVY. *Yale Univ., Yale Sch. of Med., Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Yale Sch. of Med.*
- 8:15 **678.02** Hierarchical control over effortful behavior in rat: A computational simulation. C. HOLROYD*; S. M. MCCLURE. *Univ. of Victoria, Stanford Univ.*
- 8:30 **678.03** Online feedback enhances early consolidation of motor learning and reverses recall deficits from transcranial stimulation of motor cortex. L. WILKINSON*; A. STEEL; E. MOSSHAGIAN; T. ZIMMERMANN; A. KEISLER; J. LEWIS; E. WASSERMANN. *NIH.*
- 8:45 **678.04** Adaptive effort allocation via the limbic loop. T. VERGUTS*; E. VASSEN; M. SILVETTI. *Ghent Univ., Ghent Univ.*
- 9:00 **678.05** Feedback processing is adaptive to information on volatility. A. SCHIFFER*; F. WASZAK; N. YEUNG. *Univ. of Oxford, Univ. Paris Descartes.*
- 9:15 **678.06** Avoidance goals influence striatal processing of negative feedback during learning. S. D. SWANSON*; E. TRICOMI. *Rutgers Univ.*
- 9:30 **678.07** Using olfactory aversive conditioning during human sleep to treat addiction. A. ARZI*; Y. HOLTZMAN; P. SAMNON; N. ESHEL; N. SOBEL. *Weizmann Inst. of Sci.*
- 9:45 **678.08** Reduced causal awareness associated with right pallidal shape changes in youth during the early phases of psychiatric disorders. K. R. GRIFFITHS*; J. LAGOPOULOS; D. F. HERMENS; I. B. HICKIE; B. W. BALLEINE. *Univ. of Sydney.*
- 10:00 **678.09** Tracking bidirectional prediction error signals and their disruption in cocaine addiction using feedback negativity. M. A. PARVAZ*; A. B. KONOVA; G. H. PROUDFIT; S. J. MOELLER; P. MALAKER; N. ALIA-KLEIN; R. Z. GOLDSTEIN. *Icahn Sch. of Med. at Mount Sinai, Stony Brook Univ.*
- 10:15 **678.10** Mid-frontal origin of dopamine temporal difference dynamics. M. SILVETTI*; T. VERGUTS. *Ghent Univ.*

NANOSYMPOSIUM

679. Human Cognition: White Matter and Functional Connectivity

Theme F: Cognition and Behavior

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

- 8:00 **679.01** Age-related decreases in regional white matter integrity predict reduced neural modulation to task processing demands: A combined DTI and fMRI lifespan aging study. K. M. KENNEDY*; J. R. RIECK; P. EVANS; D. C. PARK. *Univ. Texas, Dallas.*

- 8:15 **679.02** Longitudinal change in association white matter tract integrity is related to cognition in midlife and older adults: Findings from Seattle Longitudinal Study. S. L. WILLIS*; K. M. KENNEDY; A. L. GROSS; P. R. A. ROBINSON; P. RAST; D. MCLAREN; K. M. RODRIGUE; L. BARRERA-MARTINEZ; K. SCHAE. *Seattle Longitudinal Study, Univ. of Washington, Univ. of Texas at Dallas, Johns Hopkins Univ., Univ. of Washington, Univ. of Victoria, Harvard Med. Sch., Seattle Longitudinal Study, Univ. of Washington.*
- 8:30 **679.03** Functional connectivity in multiple cortical networks is associated with cognitive performance in older adults. T. HEDDEN*; E. E. SHAW; R. A. SPERLING; R. L. BUCKNER; A. P. SCHULTZ. *Massachusetts Gen. Hosp., Harvard Med. Sch., Harvard Univ., Harvard Med. Sch., Brigham & Women's Hosp.*
- 8:45 **679.04** Longitudinal thinning in association cortices is related to cognition in healthy middle aged and older adults: Findings from the Seattle Longitudinal Study. D. G. MCLAREN*; P. RAST; A. L. GROSS; K. M. KENNEDY; K. M. RODRIGUE; P. R. A. ROBINSON; L. BARRERA-MARTINEZ; K. W. SCHAE; S. L. WILLIS. *Massachusetts Gen. Hosp., Harvard Med. Sch., Univ. of Victoria, Johns Hopkins Bloomberg Sch. of Publ. Hlth., Johns Hopkins Univ., The Univ. of Texas at Dallas, Univ. of Washington, Univ. of Washington.*
- 9:00 **679.05** Age-related dedifferentiation of intrinsic functional connectivity both within and between the default and dorsal attention networks. W. D. STEVENS*; R. N. SPRENG; J. D. VIVIANO; D. L. SCHACTER. *York Univ., Cornell Univ., Harvard Univ.*
- 9:15 **679.06** Age-related changes in the relationship between recollection accuracy and recollection-related increases in functional connectivity. D. R. KING*; M. DE CHASTELAINE; M. D. RUGG. *Ctr. for Vital Longevity, UT Dallas.*
- 9:30 **679.07** Microstructural estimates of grey matter and white matter age differentially predict lifespan variability in fluid and crystallized intelligence. E. SHOKRI-KOJORI*; I. J. BENNETT; D. C. KRAWCZYK; B. RYPMAN. *The Univ. of Texas at Dallas, Ctr. for BrainHealth, Univ. of California, Irvine.*
- 9:45 **679.08** Hierarchical neural basis of memory in the aging human brain. S. PUNZELL; E. DOWLATI*; S. ADAMS; R. MORAN. *Virginia Tech. Carilion Sch. of Med., Virginia Tech. Carilion Res. Inst.*
- 10:00 **679.09** • Diffusional kurtosis imaging assessment of brain plasticity in cognitively intact older adults. L. D. HEWETT; M. V. SPAMPINATO; A. BENITEZ; A. TABESH; C. CHAN; R. DEARDORFF; H. COLLINS; M. FALANGOLA*. *Med. Univ. of South Carolina - Radiology, Med. Univ. of South Carolina - Radiology.*
- 10:15 **679.10** fMRI functional connectivity between the caudate and large-scale cortical networks in aging: Relations to dopamine PET. A. RIECKMANN*; K. R. A. VAN DIJK; R. A. SPERLING; K. A. JOHNSON; R. L. BUCKNER; T. HEDDEN. *Athinoula A. Martinos Ctr. For Biomed. Imaging, MGH, Umea Univ., Harvard Univ., Massachusetts Gen. Hosp., Brigham and Women's Hospital, Harvard Med. Sch., Massachusetts Gen. Hosp., Massachusetts Gen. Hosp., Massachusetts Gen. Hosp.*
- 10:30 **679.11** Selective effects of aging on hippocampal subfields: A high-field magnetic resonance imaging study. N. V. MALYKHIN*; Y. HUANG; F. OLSEN; P. SERES; R. CARTER. *Univ. of Alberta, Univ. of Alberta.*

* Indicated a real or perceived conflict of interest, see page 153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:45 **679.12** The depletion of sex steroid hormones during the menopausal transition is related to altered prefrontal and hippocampal signaling during working memory and memory encoding. E. G. JACOBS*; B. WEISS; S. WHITFIELD-GABRIELI; A. KLIBANSKI; J. M. GOLDSTEIN. *Harvard Med. Sch., Brigham and Women's Hosp., MIT, Harvard Med. Sch.*
- 11:00 **679.13** Obesity-related differences in regional white matter microstructure in midlife. A. C. BIRDSILL*; M. M. GONZALES; D. E. EAGAN; S. KAUR; W. J. HERTZING; A. P. HALEY. *The Univ. of Texas At Austin.*

NANOSYMPOSIUM

680. Novel Assays: Nanotools for Neuroscience I

Theme G: Novel Methods and Technology Development

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

- 8:00 **680.01** Nanoelectrode-membrane interfaces: Designing a better gigaseal. M. R. ANGLE*; Y. KONG; A. SHIDHAM; A. T. SCHAEFER; N. A. MELOSH. *Stanford Univ., Max Planck Inst. for Med. Res., Stanford Univ.*
- 8:15 **680.02** Algorithms and nanoscale neural stimulation: Physiologic inspired light adaptation of optoelectronic nanowire stimulation of the neural retina. G. A. SILVA*. *UCSD.*
- 8:30 **680.03** Nanoelectrodes for improved electrophysiology recording. B. CUI*; Z. LIN; W. ZHAO; Y. CUI; C. XIE. *Stanford Univ.*
- 8:45 **680.04** Nanowire electrophysiology for high-throughput cell sorting and screening. J. T. ROBINSON*; D. VERCOSA; A. M. BELL. *Rice Univ., Rice Univ.*
- 9:00 **680.05** Neural dust: An untethered, distributed ultrasonic backscattering system for scalable and chronic brain-machine interfaces. D. SEO*; J. CARMENA; J. RABAEY; E. ALON; M. MAHARBIZ. *UC Berkeley.*
- 9:15 **680.06** • Approaching the artificial synapse: Wirelessly controlled neurotransmitter release and electrochemical sensing system. E. K. ROSS*; S. LÖFFLER; P. MIN; D. SIMON; D. NILSSON; K. E. BENNET; M. BERGGREN; A. RICHTER-DAHLFORS; K. H. LEE. *Mayo Clin. Col. of Med., Mayo Clin., Mayo Clin., Karolinska Institutet, Mayo Clin., Linköping Univ., Acreo Swedish ICT, Mayo Clin.*
- 9:30 **680.07** Manipulating neuronal differentiation and growth via magnetic nanoparticles and nanoparticle-NGF complex. O. SHEFI*; N. ALON; M. MARCUS; T. HAVDALA; H. SKAAT; M. KARNI; M. PASSIG-ANTMAN; S. MARGEL; A. SHARONI. *Fac. of Engin. and Inst. of Nanotechnologies and Advanced Materials, Dept. of Physics and Inst. of Nanotechnologies and Advanced Materials, Dept. of Chem. and Inst. of Nanotechnologies and Advanced Materials.*
- 9:45 **680.08** A scalable design for neuronal recordings *in vivo* using readout integrated circuits and cast microwire bundles. A. T. SCHAEFER*; M. ANGLE; W. WRAY; R. RACZ; N. KISKIN; M. KOLLO. *Natl. Inst. For Med. Res., UCL, Stanford Univ., Natl. Inst. for Med. Res., Natl. Inst. for Med. Res.*
- 10:00 **680.09** A transparent organic transistor for electrophysiological stimulation and recording of primary neurons. A. PISTONE*; V. BENFENATI; S. TOFFANIN; S. BONETTI; A. SAGNELLA; S. KARGES; G. TURATTI; M. CHIAPPALONE; A. STEFANI; G. GENERALI; G. RUANI; D. SAGUATTI; R. ZAMBONI; M. MUCCINI. *CNR-ISOF, CNR-ISMN, Consiglio nazionale delle ricerche (CNR)- MIST-ER, E.T.C. srl, Inst. Italiano di Tecnologia (IIT),.*

- 10:15 **680.10** Nano-rings for multifunctional neuronal interfaces. N. MELOSH*; N. HOHMAN; K. CHANG; T. BOZORG-GRAYELI. *Stanford Univ.*
- 10:30 **680.11** CMOS-nanowire electrode array for high-fidelity multiplexed interrogation of neuronal circuits. H. PARK*. *Harvard Univ.*
- 10:45 **680.12** Silk fibroin substrates as neural, instructive interface that guides growth, differentiation and functional properties of primary neurons and astrocytes *in vitro*. A. SAGNELLA; A. PISTONE; T. POSATI; S. BONETTI; C. DIONIGI; C. CHIECO; S. TOFFANIN; G. RUANI; R. ZAMBONI; M. SPIRA; M. MUCCINI; V. BENFENATI*. *Natl. Res. Council (CNR), Cnr-National Res. Council, Natl. Res. Council, Natl. Reserch Council (CNR), The Hebrew Univ. of Jerusalem Nanoscience center, Givat-Ram Campus, Jerusalem 91904, Israel.*
- 11:00 **680.13** An architecture for neural recording using optical time-domain reflectometry. A. MARBLESTONE; D. AMODEI; G. CHURCH; L. WOOD; E. S. BOYDEN*. *MIT, Stanford Univ., Harvard Univ., N/A, MIT.*

POSTER

681. Induced Neurogenesis

Theme A: Development

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

- 8:00 A1 **681.01** The role of miR-124-9-9* in Müller glia reprogramming. S. G. WOHL*; K. E. COX; J. POLLAK; A. LATORRE; T. A. REH. *Univ. of Washington.*
- 9:00 A2 **681.02** Reprogramming MGE precursors to a glutamatergic fate. H. M. BELALCAZAR; N. MCKEEHAN*; J. M. HEBERT. *Albert Einstein Col. of Med.*
- 10:00 A3 **681.03** Direct conversion of mouse and induced human fibroblasts to nicotine responsive neurons. S. LEE*; J. W. BLANCHARD; K. EADE; K. BALDWIN. *The Scripps Research Institute.*
- 11:00 A4 **681.04** Differentiation of SH-SY5Y human neuroblastoma cells alters FGF2-mediated signal transduction. L. A. DOKAS*; S. J. WATSON; H. AKIL. *Univ. of Michigan.*
- 8:00 A5 **681.05** Generating targeted Ihx6 human embryonic stem cell reporter lines for interneuron development research. J. CHU*; S. ANDERSON; A. KAYKAS. *Children's Hosp. of Philadelphia, Allen Inst. for Brain Res.*
- 9:00 A6 **681.06** Synaptamide ameliorates ethanol-induced impairment of neurogenic differentiation of neural stem cells. M. RASHID*; H. KIM. *NIAAA, NIH.*
- 10:00 A7 **681.07** Induction of subtype-specific cortical projection neurons from endogenous cortical progenitors. A. OZKAN; H. PADMANABHAN*; S. L. SHIPMAN; J. D. MACKLIS. *Harvard Univ.*
- 11:00 A8 **681.08** Novel transcription factor combinations induce distinct neuronal subtypes directly from fibroblasts. R. K. TSUNEMOTO*; J. W. BLANCHARD; K. T. EADE; P. A. CHUBUKOV; K. K. BALDWIN. *The Scripps Res. Inst., Univ. of California San Diego.*
- 8:00 A9 **681.09** • Differentiating human pluripotent stem cells to midbrain dopaminergic neurons. S. SHIN*; M. COKONIS; Y. YAN; K. VEDVIK; L. REICHILING; R. NEWMAN; R. FISHER; B. HANSON; M. VEMURI; D. KUNINGER. *LIFE Technologies, Primary and Stem Cell Systems, Thermo Fisher Scientific, Thermo Fisher Scientific.*

POSTER

682. Brain Cholinergic Mechanisms

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

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

- 8:00 A10 **682.01** Measurement of acetylcholine release in the hippocampus during behavior using amperometric sensors. L. M. TELES-GRILLO RUIVO*; K. L. BAKER; K. G. PHILLIPS; M. W. CONWAY; P. J. KINSLEY; J. R. HUXTER; G. GILMOUR; J. P. LOWRY; J. T. ISAAC; J. R. MELLOR. *Univ. of Bristol, Natl. Univ. of Ireland, Eli Lilly and Co. Ltd.*
- 9:00 A11 **682.02** Elevated cholinergic tone disrupts the balance of stability and plasticity in the auditory cortex of ChAT-ChR2-EYFP transgenic mice. W. GUO*; B. G. SHINN-CUNNINGHAM; D. B. POLLEY. *Massachusetts Eye and Ear Infirmary, Boston Univ., Harvard Med. Sch.*
- 10:00 A12 **682.03** The development of a microelectrochemical choline biosensor for real-time neurochemical monitoring. K. L. BAKER; F. B. BOLGER; J. P. LOWRY*. *Natl. Univ. of Ireland, Maynooth.*
- 11:00 A13 **682.04** Modulation of hippocampal gamma oscillations by acetylcholine: An *In vitro* optogenetic and computational investigation. R. BETTERTON*; K. TSANEVA-ATANASOVA; J. MELLOR. *Univ. of Bristol, Univ. of Exeter.*
- 8:00 A14 **682.05** Modulation of prefrontal cortical circuits by cholinergic inputs from the nucleus basalis. G. Y. LOPEZ*; D. A. TALMAGE; L. W. ROLE. *Stony Brook Univ.*
- 9:00 A15 **682.06** Abnormal hippocampal activation in freely behaving mice deficient for vesicular acetylcholine transporter. S. MOALLEM*; M. PRADO; V. PRADO; S. LEUNG. *Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Western Ontario.*
- 10:00 A16 **682.07** Mechanisms of sustained cholinergic excitation of prefrontal executive circuitry. E. PROULX*; M. TIAN; L. KANG; E. K. LAMBE. *Univ. Toronto.*
- 11:00 A17 **682.08** Alzheimer's disease-like cognitive and pathological dysfunction in a genetic mouse model of forebrain cholinergic deficiency. M. AL-ONAIZI*; B. KOLISNYK; M. PRADO; V. PRADO. *Robarts Res. Inst., Western Univ., Western Univ.*
- 8:00 A18 **682.09** ▲ Chlorpyrifos exposure induces abnormalities in developing cholinergic neurons in *Caenorhabditis elegans* and *Xenopus laevis*. M. QUELHORST; H. SCHMIDT; O. MAC; D. BOURGAIZE; E. A. FRADINGER*; F. L. WATSON. *Washington and Lee Univ., Whittier Col.*
- 9:00 A19 **682.10** Nicotinic acetylcholine receptors and what else? Relative modulation of layer VI neuronal activity by acetylcholine, dopamine, and norepinephrine. M. K. TIAN*; E. PROULX; M. PIVA; E. K. LAMBE. *Univ. of Toronto.*
- 10:00 A20 **682.11** Prefrontal layer VI pyramidal neuron spine density: Dependence on apical dendrite sculpting by nicotinic acetylcholine receptors. L. KANG*; C. D. BAILEY; M. K. TIAN; E. K. LAMBE. *Univ. of Toronto, Univ. of Toronto, Univ. of Guelph, Univ. of Toronto.*
- 11:00 A21 **682.12** Subgroups of neurones in the mouse spinal cord co-localised with enzymes synthesising GABA and acetylcholine. J. GOTTS*; I. J. EDWARDS; S. A. DEUCHARS; J. DEUCHARS. *Univ. of Leeds, Univ. Col. London.*

- 8:00 A22 **682.13** Characterization of the zebrafish interpeduncular nucleus. A. SUBEDI*; E. DUBOUÉ; M. HALPERN. *Johns Hopkins University/ Carnegie Inst. For Sci., Carnegie Institution for Sci.*
- 9:00 A23 **682.14** Cholinergic modulation of pyramidal Neurons in the ventral Subiculum. S. WANG*; D. TALMAGE; L. ROLE. *Program In Neuroscience, SUNY At Stony Brook, Program In Neuroscience, SUNY At Stony Brook, Program In Neuroscience, SUNY At Stony Brook.*
- 10:00 A24 **682.15** Cholinergic modulation of functional thalamocortical topography. C. C. LEE*; Y. YANAGAWA; K. IMAIZUMI. *LSU Sch. of Vet. Med., Gunma Univ. Grad. Sch. of Med.*
- 11:00 A25 **682.16** Cholinergic regulation of the hippocampal area CA1 to the entorhinal cortex circuit. J. HAAM*; J. L. YAKEL. *NIH/NIEHS.*
- 8:00 A26 **682.17** The contribution of Ih to the cholinergic enhancement of repetitive synaptic responses at theta- and gamma-frequencies in the parasubiculo-entorhinal pathway. D. W. SPARKS*; C. A. CHAPMAN. *Concordia Univ.*
- 9:00 A27 **682.18** Cell surface $\alpha 4\beta 2$ nAChR expression is modulated by kinase activity and cholesterol content. C. A. ZAMBRANO*; C. A. SHORT; S. R. GRADY; M. J. MARKS; C. A. HOEFFER. *Univ. of Colorado, Univ. of Colorado, Univ. of Colorado.*
- 10:00 A28 **682.19** The molecular mechanism of the $\alpha 7$ nAChR silent agonist NS6740 is associated with nonconducting conformations of the receptor. C. PENG*; R. L. PAPKE. *Col. of Medicine, Univ. of Florida.*
- 11:00 A29 **682.20** Varenicline binding interactions in 5-HT3 receptors are revealed by 5HTBP. S. C. LUMMIS*; R. K. LILLESTOL; K. L. PRICE; C. ULENS. *Univ. of Cambridge, KU Leuven and Xanelix.*
- 8:00 A30 **682.21** The pharmacological profile and actions of cholinergic system in larval *Drosophila*: Behavior, development, CNS activity, and heart. C. MALLOY*; J. HILL; W. WU; R. L. COOPER. *Univ. of Kentucky.*
- 9:00 A31 **682.22** Hippocampal cholinergic interneurons comprise a feed-forward excitation circuit. F. YI*; E. CATUDIO-GARRETT; R. GABRIEL; M. WILHELM; K. DEISSEROTH; J. LAWRENCE. *Dept. of Biomed. and Pharmaceut. Sciences, Univ. of Montana, Dept. of Exptl. Zoology and Neurobiology, Univ. of Pécs, Dept. of Bioengineering, Stanford University, Stanford.*

POSTER

683. Opioid Receptor Signaling and Function

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

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

- 8:00 A32 **683.01** Optically sensitive mu-opioid receptors for spatiotemporal dissection of pain and reward neural circuits. M. J. SCHMIDT*; M. BAIRD; W. PLANER; V. SAMINENI; B. COPITS; S. SPANGLER; R. AL-HASANI; J. G. MCCALL; R. W. GEREAU, IV; M. R. BRUCHAS. *Washington Univ. In St. Louis, Washington Univ. In St. Louis, Washington Univ. In St. Louis, Washington Univ. In St. Louis.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 A33 **683.02** Analysis of functional selectivity at the nociceptin opioid receptor. S. CHANG*; S. M. SPANGLER; S. W. MASCARELLA; G. E. MIGNECO; V. GUREVICH; F. I. CARROLL; M. R. BRUCHAS. *Washington Univ. In St. Louis, RTI Intl., Vanderbilt Univ.*
- 10:00 A34 **683.03** Regulators of G-protein Signaling modulate chronic pain symptoms and responses to analgesic drugs. S. GASPARI*. *Univ. of Crete.*
- 11:00 A35 **683.04** Arrestin-dependent and -independent mechanisms of mu and kappa opioid receptor inactivation. J. R. KUCHAR; A. BEDINI; P. A. GROBLEWSKI; E. J. MELIEF; J. CHIU; C. I. CHAVKIN*. *Univ. Washington Sch. Med.*
- 8:00 A36 **683.05** Alteration of adenylate cyclase activity in human embryonic kidney 293 cells coexpressing μ -, κ -opioid and nociceptin receptors after buprenorphine exposure. C. W. LEE*; P. WANG; I. HO. *China Med. Univ. Hosp., Natl. Hlth. Res. Inst., China Med. Univ.*
- 9:00 A37 **683.06** Opioid receptor responses of nucleus accumbens cholinergic interneurons. D. NACHUN*; C. CEPEDA; M. LEVINE; C. EVANS. *UC Los Angeles.*
- 10:00 A38 **683.07** Further insights into the interaction mode of salvinorin A at the kappa-opioid receptor using molecular dynamics simulations. S. A. ZAIDI; B. L. ROTH; P. D. MOSIER*. *Virginia Commonwealth Univ., Univ. of North Carolina.*
- 11:00 A39 **683.08** Mechanisms of impaired sensory neuron opioid receptor efficacy during early stages of painful diabetic neuropathy. S. MOUSA; M. SHAQURA; B. KHALEFA; M. SHAKIBAEI; M. SCHAEFER*. *Charité Univ. Berlin, Dep. of Anesthesiol & Intensive Care Medicine, Charité Univ. Berlin, CVK, Ludwig-Maximilian-University Munich.*
- 8:00 A40 **683.09** Morphine-induced trafficking of mu-opioid receptors in female locus coeruleus neurons. N. ENMAN*; B. A. S. REYES; E. J. VAN BOCKSTAELE. *Drexel Univ. Col. of Med.*
- 9:00 A41 **683.10** Examining the roles of delta receptors and β -arrestin2 in mu receptor signalling in the VTA. F. BULL*; W. WALWYN; L. WRIGHT; T. G. HALES. *Univ. of Dundee, UCLA.*
- 10:00 A42 **683.11** Opioid receptor signaling mediates homeostatic plasticity in the hippocampus. B. N. QUEENAN*; S. VICINI; D. T. S. PAK. *Georgetown Univ. Med. Ctr., Georgetown Univ. Med. Ctr.*
- 11:00 A43 **683.12** The dynorphins are functionally selective ligands at the mu opioid receptor. J. LAVIGNE; K. OLSON; F. PORRECA; J. M. STREICHER*. *Univ. of New England, Univ. of Arizona.*
- 8:00 A44 **683.13** Effects of acute and repeated kappa opioid and dopamine D2 receptor activation on phasic and tonic dopamine neurotransmission in the nucleus accumbens. A. P. ESCOBAR*; M. P. GONZALEZ; J. A. FUENTEALBA; R. ESPAÑA; M. E. ANDRES. *Pontificia Univ. Catolica De Chile, Millennium Sci. Nucleus in Stress and Addiction, Pontificia Univ. Catolica De Chile, Drexel Univ.*

POSTER

684. Calcium Channels: Intracellular Calcium Signaling

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

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

- 8:00 A45 **684.01** Calcium buffers do not suppress (but may enhance) intrinsic free calcium concentration fluctuations in calcium microdomains. G. D. SMITH*; S. H. WEINBERG. *The Col. of William & Mary.*
- 9:00 A46 **684.02** Causal relationship between store-operated calcium entry, ER calcium stores, and ER stress/UPR in dopaminergic neurons. A. YEN*; C. OSLOWSKI; V. M. BOLOTINA. *Boston Univ. Sch. of Med.*
- 10:00 A47 **684.03** Recovery process from hydraulic stress-induced elevation of intracellular calcium is delayed with aging and accelerated by knockdown of Orai3. J. KUMAMOTO*; S. DENDA; K. TAKEI; M. GOTO; M. DENDA. *Japan Sci. and Technol. Agency, CREST, Shiseido Res. Ctr.*
- 11:00 A48 **684.04** Characteristics of Ca^{2+} dynamics in single boutons of hippocampal fast-spiking and non-fast-spiking GABAergic interneurons recorded using femtosecond two-photon laser microscopy. T. LÖRINCZ; M. KISFALI*; S. E. VIZI. *Inst. of Exptl. Medicine-HAS.*
- 8:00 A49 **684.05** Spontaneous L-type calcium channel activity regulates local calcium signaling in the neurites of developing cortical neurons. S. KAMIJO*; K. SUZUKI; S. HORIGANE; H. FUJII; S. TAKEMOTO-KIMURA; H. BITO. *Univ. of Tokyo, Univ. of Texas Southwestern Med. Ctr., CREST-JST.*
- 9:00 A50 **684.06** Cyanidin-3-glucoside inhibits ATP-induced $[\text{Ca}^{2+}]_i$ increase, formation of reactive oxygen species and mitochondrial depolarization in PC12 cells. J. YANG*; S. PERVEEN; S. YOON. *Catholic Univ. of Korea, Catholic Univ. of Korea.*
- 10:00 A51 **684.07** Altered sleep pattern in mice with increased low-threshold burst firing in thalamocortical neurons. E. CHEONG*; J. LEE; J. HONG; H. SHIN. *Yonsei Univ., Inst. for Basic Sci.*
- 11:00 A52 **684.08** Enhanced CICR and SOCE in layer 3 pyramidal cells in the barrel cortex of PRIP-DKO mice. T. KAWANO; M. SAITO; H. TOYODA; H. SATO; Y. KANG*. *Osaka Univ. Grad. Sch. Dent.*
- 8:00 A53 **684.09** The characterization and role of mitochondrial Ca^{2+} dynamics in *Aplysia* neuroendocrine cells. C. J. GROTEN*; N. MAGOSKI. *Queen's Univ., Queen's Univ.*
- 9:00 A54 **684.10** How can the open probability of ionic channels and the wave form of a burst be maximized by designing an EEG-triggered sequence of TES/TMS? J. F. GOMEZ-MOLINA*; U. M. RICOY; I. ESCOBAR; J. VELEZ. *Intnl Group of Neuro, New Mexico Col., Escuela de Ingenieria de Antioquia EIA, Intnl Group of Neuro (USA-member).*

POSTER

685. Ca-Gated K Channels

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

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

- 8:00 A55 **685.01** Membrane properties and GABAergic synaptic transmission in central amygdala neurons from mice lacking BK channel beta-1 subunits: Implication of BK channels for alcoholism. Q. LI*; C. CONTET; S. TREISTMAN; S. MOORE. *Duke Univ. Med. Ctr., The Scripps Res. Inst. La Jolla, Univ. of Puerto Rico.*
- 9:00 A56 **685.02** Kcnmb2 is required for diurnal regulation of the BK K⁺ current and circadian patterning of neural activity in the mouse suprachiasmatic nucleus. J. P. WHITT*; A. L. MEREDITH. *Univ. of Maryland Baltimore, Univ. of Maryland Sch. of Med.*
- 10:00 A57 **685.03** SK channel modulation attenuates alpha-synuclein-induced microglial activation. A. M. DOLGA*; F. WILHELMY; L. MATSCHKE; M. GOLD; G. GANJAM; R. DODEL; N. DECHER; C. CULMSEE. *Philipps-Universität Marburg, Inst. of Physiol. and Pathophysiology, Univ. of Marburg, Dept. of Neurology, Univ. of Marburg.*
- 11:00 A58 **685.04** An analysis of calcium dependent potassium current during an action potential from suprachiasmatic nucleus neurons. J. R. CLAY*. *NIH.*
- 8:00 A59 **685.05** Involvement of SK-type calcium-activated potassium channel in α -synuclein oligomer-mediated suppression of spike frequency in neocortical pyramidal neurons. K. YAMAMOTO*; H. SAWADA. *Utano Natl. Hosp.*
- 9:00 A60 **685.06** Reduced Kcnmb4 expression and changes in BK channel subtype in hippocampal granule neurons following seizure activity. R. BRENNER*; L. WHITMIRE; S. TIMILSINA; B. WANG; A. L. MEREDITH; D. B. JAFFE; J. CAVAZOS. *UT Hlth. Sci. Ctr, San Antonio, UT Hlth. Sci. Ctr. San Antonio, Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Univ. of Maryland, Univ. of San Antonio.*
- 10:00 A61 **685.07** Novel roles for IKCa channels in rodent hippocampal CA1 pyramidal neurons. B. KING*; A. P. RIZWAN; N. C. HEATH; H. ASMARA; S. N. DYKSTRA; G. W. ZAMPONI; R. W. TURNER. *Univ. of Calgary, Univ. of Calgary.*

POSTER

686. Neuronal Excitability: Hcn and Non-Selective Cation Channels

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

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

- 8:00 A62 **686.01** Ethanol-dependent modulation of Ih currents in rat hippocampal CA3 pyramidal neurons: Involvement in synaptic integration. V. LICHERI; J. DI LUCENTE; G. TALANI; G. SITZIA; G. BIGGIO; E. SANNA*. *Univ. Cagliari, Natl. Res. Council.*

- 9:00 A63 **686.02** Surface expression of the HCN2 subunit in Mesocorticolimbic areas after cocaine sensitization. B. SANTOS VERA*; A. M. RAMOS-CARDONA; A. C. VAQUER-ALICEA; R. VÁZQUEZ-TORRES; M. C. VELÁSQUEZ-MARTÍNEZ; C. A. JIMÉNEZ-RIVERA. *Univ. of Puerto Rico Med. Sci. Campus Sch. of Med., Univ. of Puerto Rico Rio Piedras Campus, Univ. Industrial de Santander.*
- 10:00 A64 **686.03** Nitric oxide modulates HCN channels in the supraoptic nucleus by s-nitrosylation-dependent mechanism. M. P. SILVA*; A. S. MECAWI; W. A. VARANDA. *Sch. of Med. of Ribeirão Preto / Univ. of São Paulo.*
- 11:00 A65 **686.04** PKC bi-directionally modulates Ih and HCN1 surface expression in hippocampal principal neurons. A. D. WILLIAMS*; S. JUNG; N. POOLOS. *Univ. of Washington, Univ. of Washington.*
- 8:00 A66 **686.05** Ih current blocker ZD-7288 feeding to honey bees causes changes in sleep and learning behaviors. E. J. RIVERA*; T. GIRAY; J. L. AGOSTO; C. A. JIMENEZ-RIVERA. *Univ. of Puerto Rico, Rio Piedras Campus, Univ. of Puerto Rico, Rio Piedras, Univ. of Puerto Rico, Recinto de Ciencias Medicas.*
- 9:00 A67 **686.06** Organotypic slice cultures of basolateral amygdala: A model for stress-related circuitry. S. D. MICHAELSON*; J. H. URBAN; W. F. COLMERS. *Univ. of Alberta, Chicago Med. School, Rosalind Franklin Univ. of Med. and Sci.*
- 10:00 A68 **686.07** Subthreshold conductances regulate local field potentials and theta-frequency spike phase preference of hippocampal model neurons. M. SINHA*; R. NARAYANAN. *Indian Inst. of Sci.*
- 11:00 B1 **686.08** Primary adult rat microglia express Sur1-regulated channels. D. B. KURLAND*; N. CAFFES; J. K. KARIMY; V. GERZANICH; J. M. SIMARD. *Univ. of Maryland Sch. of Med.*
- 8:00 B2 **686.09** CNGA3 channels are expressed at the axonal initial segments in the CNS. L. ROVIRA-ESTEBAN*; A. I. MARQUÉS-MARÍ; Z. MAGLÓCZKY; N. HAJOS; J. M. BLASCO-IBÁÑEZ. *Univ. of Valencia, Inst. of Exptl. Medicine, Hungarian Acad. of Sci.*
- 9:00 B3 **686.10** Activation of inositol trisphosphate receptors is sufficient for inducing graded intrinsic plasticity in hippocampal pyramidal neurons. S. ASHHAD*; D. JOHNSTON; R. NARAYANAN. *Indian Inst. of Sci., Univ. of Texas at Austin.*

POSTER

687. Acetylcholine and Other Transporters

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

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

- 8:00 B4 **687.01** Inhibition of WNK3-SPAK/OSR1 kinase signaling reduces brain damage and accelerates neurological recovery following ischemic stroke. G. BEGUM*; S. WANG; K. T. KAHLE; L. LI; H. YUAN; Y. SHI; B. E. SHMUKLER; S. YANG; S. LIN; S. L. ALPER; D. SUN. *Univ. of Pittsburgh, Massachusetts Gen. Hosp. and Harvard Med. Sch., Harvard Med. Sch. and Howard Hughes Institute, Harvard Univ., Harvard Med. Sch., Tri-Service Gen. Hospital, Natl. Def. Med. Ctr., Geriatric Research, Educational and Clin. Ctr.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 B5 **687.02** WNK3 KO mice exhibit reduced lesion size by ADC and DTI MRI after focal cerebral ischemia. X. GAO; L. M. FOLEY; S. WANG*; G. BEGUM; Y. SHI; L. M. FALGOUTS; J. DENG; K. T. KAHLE; S. L. ALPER; T. HITCHENS; S. HU; D. SUN. *Dept. of Neurology, Univ. of Pittsburgh, the Second Affiliated Hosp. of the Harbin Med. Univ., Carnegie Mellon Univ., Massachusetts Gen. Hosp. and Harvard Med. Sch., Harvard Med. Sch. and Howard Hughes Institute, Harvard Univ., Harvard Med. Sch., Educational and Clin. Ctr.*
- 10:00 B6 **687.03** Sodium-calcium exchanger (NCX) is regulated by leptin and insulin in rat cortical neurons. J. C. SÁNCHEZ*. *Univ. Tecnológica De Pereira.*
- 11:00 B7 **687.04** Neuronal CIC-3 splice variants exhibit similar biophysical properties but differ in the subcellular localization in hippocampal neurons. R. E. GUZMAN*; E. MIRANDA-LAFERTE; T. GENSCH; M. COMINI; C. FAHLKE. *Forschungszentrum Jülich GmbH.*
- 8:00 B8 **687.05** *In vitro* and *in vivo* characterization of [¹¹C]TZ659 and [³H]TZ659 for vesicular acetylcholine transporter. H. LIU; H. JIN; X. ZHANG; J. LI; K. KANESHIGE; S. M. PARSONS; J. S. PERLMUTTER; Z. TU*. *Washington Univ., Univ. of California, Santa Barbara.*
- 9:00 B9 **687.06** ▲ Effects of changes in acetylcholine release on locomotion states in central synapses. A. BLAKE; N. KENDALL; S. BOPPANA; T. KITAMOTO; H. O. LAVAL*. *Delaware State Univ., Univ. of Iowa.*
- 10:00 B10 **687.07** Mapping glycinergic circuitry in the adult rat basal ganglia. R. ORTEGA*; M. PANDO; P. LOZANO; B. LOPEZ; M. MIRANDA-ARANGO. *Univ. of Texas at El Paso.*
- 11:00 B11 **687.08** N-terminus determines the targeting of K⁺-Cl⁻ co-transporter KCC2 to neuronal plasma membrane. P. FRIEDEL; A. LUDWIG; C. PELLEGRINO; C. RIVERA; I. MEDINA*. *INSERM, Neurosci. Ctr.*
- 8:00 B12 **687.09** Evans Blue blocked stimulated but not basal release of ATP from sympathetic nerve terminals, suggesting different control mechanism of secretion. R. A. BARRA*; B. CAYUPE; M. V. DONOSO; J. P. HUIDOBROTORO. *Univ. De Santiago De Chile, Univ. de Santiago de Chile.*
- 9:00 B13 **687.10** The anion exchanger 3 is essential for the robust acidification response in CA1 hippocampal neurons during metabolic acidosis. A. I. SALAMEH; W. F. BORON*. *Case Western Reserve Univ.*
- 10:00 B14 **687.11** Localization of equilibrative nucleoside transporter 3 (ENT3) in mouse brain. L. ROBERTS; W. XIONG; N. LEVINE; M. F. JACKSON; F. E. PARKINSON*. *Univ. Manitoba.*
- 11:00 B15 **687.12** Plasticity-related gene 1 specifically mediates lysophosphatidic acid uptake. Y. LI*; X. LIU; S. RICHES; V. JOHANNES; A. MORRIS; J. HUAI; R. NITSCH. *Inst. of Microscopic Anat. and Neurobio., Gill Heart Institute, Univ. of Kentucky.*
- 8:00 B16 **687.13** Is Inebriated-P2 an antiporter mediating transport of histamine and beta-alanine at *Drosophila* photoreceptors? J. BORYCZ*; J. A. BORYCZ; G. UHLENBROCK; B. HOVEMANN; I. A. MEINERTZHAGEN. *Dalhousie Univ., Ruhr-Universitaet Bochum, Dalhousie Univ.*
- 9:00 B17 **687.14** Glial cell distribution and SVCT2 transporter expression in different areas of the adult brain. K. SALAZAR; F. MARTÍNEZ; F. ESPINOZA; F. J. NUALART*. *Concepcion Univ., Concepcion Univ.*
- 10:00 B18 **687.15** High-throughput assay development for cystine-glutamate antiporter (x_c⁻). A. G. THOMAS*; K. TENDYKE; K. A. LOIACONO; H. HANSEN; V. SAHNI; A. KOYAMA; Y. HASHIZUME; C. ROJAS; B. S. SLUSHER. *John Hopkins Brain Sci. Inst., Next Generation Systems CFU, Eisai Inc., Neurosci. and Gen. Med. PCU, Eisai Inc., John Hopkins Univ., John Hopkins Univ.*
- 11:00 B19 **687.16** Regulation of the transporters involved the glutamate/glutamine cycle in cultured Müller glial cells. J. H. CASTILLO*; A. ORTEGA; A. RODRÍGUEZ. *CINVESTAV-IPN, CINVESTAV-IPN, Univ. Autónoma de Querétaro, Ctr. Universitario.*
- 8:00 B20 **687.17** Effect of zinc deficiency on taurine concentration, localization of taurine and zinc transporter, taurine transport and RNA levels taurine transporter in cells rat retina. A. MARQUEZ GARCIA; M. URBINA; V. SALAZAR; L. LIMA*. *IVIC, CBB, IVIC, CBB.*
- 9:00 B21 **687.18** Comparative analysis of VNUT(SLC17a9) mRNA expression in neurons and neuroglia in mouse brain. M. K. SCHAFER*; S. DOTZAUER; P. REINROSS; M. A. R. BERTOUNE. *Philipps Univ. Marburg.*
- 10:00 B22 **687.19** The environmental neurotoxin β-N-methylamino-L-alanine: Uptake and effects in sh-sy5y and u343 cells and intracellular fibril formation in hippocampus following neonatal exposure. L. ERSSON*; M. ANDERSSON; A. BERG; J. HANREIDER; O. KARLSSON; E. B. BRITTEBO. *Uppsala Univ., Uppsala Univ., AstraZeneca R&D Södertälje, Gothenburg Univ., Chalmers Univ. of Technol.*

POSTER

688. Homeostatic Synaptic Plasticity and Presynaptic Function

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

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

- 8:00 B23 **688.01** The role of type VI adenylyl cyclase in the regulation of synaptic activity. C. CHANG*; C. LEE; M. LIN; H. LAI; C. CHIEN; P. CHENG; C. LIEN; Y. CHERN. *Academia Sinica, Natl. Yang-Ming Univ., Natl. Yang-Ming Univ., Academia Sinica.*
- 9:00 B24 **688.02** Unveiling the puzzle of homeostatic plasticity | How Contactin-associated proteins 1 and 2 (Caspr1 & 2) fit in to homeostatically regulate synaptic AMPA receptors. D. FERNANDES*; L. RIBEIRO; S. SANTOS; A. CARVALHO. *Ctr. For Neurosci. and Cell Biol., PDBEB, Doctoral Programme in Exptl. Biol. and Biomedicine, CNC, Univ. of Coimbra, Inst. for Interdisciplinary Research, Univ. of Coimbra (IIIUC), Dept. of Life Sciences, Fac. of Sci. and Technology, Univ. of Coimbra.*
- 10:00 B25 **688.03** Epigenetic regulation of homeostatic synaptic scaling via DNA methylation. J. MEADOWS*; M. GUZMAN KARLSSON; C. HOLLEMAN; J. DAY; J. HABLITZ; D. SWEATT. *Univ. of Alabama At Birmingham, Univ. of Alabama at Birmingham.*
- 11:00 B26 **688.04** PKA-GluA1 coupling via AKAP5 controls AMPA receptor phosphorylation and cell-surface targeting during bidirectional homeostatic plasticity. G. H. DIERING*; A. GUSTINA; R. HUGANIR. *Johns Hopkins Univ., Johns Hopkins Univ.*

- 8:00 B27 **688.05** Synapse type specificity of synaptic scaling in visual cortical L4. N. J. MISKA*; G. G. TURRIGIANO. *Brandeis Univ.*
- 9:00 B28 **688.06** Experience-dependent synaptic scaling requires metabotropic glutamate receptor signaling in mouse primary visual cortex. H. LEE*; V. CHOKSHI; P. WORLEY; M. GAO. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Med. Sch., Barrow Neurolog. Inst.*
- 10:00 B29 **688.07** Cdk5 is necessary for the rapid induction of presynaptic homeostasis. C. J. LOCKE*; K. J. FORD; G. W. DAVIS. *Univ. of California, San Francisco.*
- 11:00 B30 **688.08** ● Involvement of sirt3 in homeostatic synaptic plasticity. Y. LIU*; A. CHENG; D. LU; M. MATTSON. *NIA, NIH.*
- 8:00 B31 **688.09** The role of dystroglycan and agrin in mediating homeostatic plasticity at GABAergic synapses. H. PRIBIAG*; H. PENG; W. A. SHAH; S. CARBONETTO; D. STELLWAGEN. *Montreal Gen. Hosp., McGill Univ.*
- 9:00 B32 **688.10** CaMKII regulates kinesin-mediated AMPAR transport and homeostatic control of synaptic strength. F. J. HOERNDL*; J. E. MELLEM; R. WANG; A. KALLARACKAL; P. J. BROCKIE; C. THACKER; D. M. MADSEN; A. V. MARICQ. *Univ. of Utah.*
- 10:00 B33 **688.11** Synaptic homeostasis is a reversible process at the *Drosophila* neuromuscular junction. C. J. NEFF*; C. A. FRANK. *Univ. of Iowa, Univ. of Iowa.*
- 11:00 B34 **688.12** Role of NMDA receptors in experience-dependent homeostatic synaptic scaling. G. RODRIGUEZ; J. L. WHITT*; M. GAO; H. LEE. *Johns Hopkins Univ., Barrow Neurolog. Inst.*
- 8:00 B35 **688.13** Cross-modally induced changes in auditory cortex circuitry after visual deprivation. E. R. PETRUS*; H. LEE. *Johns Hopkins Univ.*
- 9:00 B36 **688.14** Homeostatic plasticity in the adult mouse visual cortex (V1). M. TEICHERT; W. KARGUTH; A. DÖDING; K. LEHMANN; J. BOLZ*. *Univ. Jena.*
- 10:00 B37 **688.15** Homeostasis of cortical neuronal activity is differentially expressed during waking and sleeping in freely behaving animals. K. B. HENGEN*; S. D. VAN HOOSER; A. J. KASHANCHI; G. G. TURRIGIANO. *Brandeis Univ.*
- 11:00 B38 **688.16** Neuronal activity regulates axonal growth during motor neuron development *in vitro*. E. K. AUBREY*; V. F. RAFUSE. *Dalhousie Univ.*
- 8:00 B39 **688.17** Synaptic inputs to axotomized motoneurons are maintained by repeated but not single application of brief electrical stimulation. A. W. ENGLISH*; C. LIU. *Emory Univ. Sch. Med., Changzheng Hospital, Second Military Med. Univ.*
- 9:00 B40 **688.18** Visualizing munc13-dependent facilitation of synaptic release by cryo-electron tomography. U. DITTMANN*; S. ASANO; Y. FUKUDA; W. BAUMEISTER; V. LUCIC. *Max-Planck-Institute for Biochem.*
- 10:00 B41 **688.19** Bi-directional homeostatic control of presynaptic neurotransmitter release. M. GAVIÑO*; G. DAVIS. *UCSF.*
- 11:00 B42 **688.20** The activity-dependent synaptic growth at the *Drosophila* neuromuscular junction depends on the PKA/synapsin pathway. C. L. TORRES FERRERIS*; A. VASIN; M. BYKHOVSKAIA. *Univ. Central Del Caribe.*

- 8:00 B43 **688.21** Elevation of synapsin IIb levels strongly correlates with submissive behavior. E. NESHER*; M. GROSS; T. TIKHONOV; M. BAIRACHNAYA; I. KOMAN; G. YADID; A. PINHASOV. *Ariel Univ., Bar-Ilan Univ.*
- 9:00 B44 **688.22** Identification of a presynaptic innate immune receptor required for the homeostatic modulation of neurotransmitter release. N. HARRIS*; D. J. BRASIER; D. K. DICKMAN; G. W. DAVIS. *UCSF, UCSF.*
- 10:00 B45 **688.23** A novel role for NSF in synaptic homeostasis at the *Drosophila* neuromuscular junction. A. P. MULLIN*; A. GOKHALE; S. SANYAL; V. FAUNDEZ. *Emory Univ., Biogen Idec.*

POSTER

689. Synaptic Plasticity: Transcription and Translation

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

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

- 8:00 B46 **689.01** ● Characterization of locally translated presynaptic proteins. R. L. BIGLER*; T. NAGENDRAN; A. M. TAYLOR. *UNC Chapel Hill, UNC Chapel Hill, UNC Chapel Hill, UNC Chapel Hill.*
- 9:00 B47 **689.02** ● Long-term synaptic plasticity is induced in hippocampal neurons following distal axonal injury. T. NAGENDRAN*; R. L. BIGLER; R. LARSEN; B. D. PHILPOT; A. M. TAYLOR. *Univ. Of North Carolina, Univ. Of North Carolina, Univ. Of North Carolina, Univ. Of North Carolina.*
- 10:00 B48 **689.03** A role for eRNA in neuronal gene expression. K. SCHAUKOWITCH*; J. JOO; X. LIU; T. KIM. *UT Southwestern Med. Ctr.*
- 11:00 B49 **689.04** Effects of p11 on BDNF-induced changes in dendritic outgrowth and spine formation in rat hippocampal cells. M. SEO; H. CHO; L. NHU; J. LEE; Y. KIM; S. PARK*. *Inje Univ., Inje Univ., Inje Univ.*
- 8:00 B50 **689.05** Rapid regulation of Tet1 expression and protein-protein interactions during *in vitro* classical conditioning. Z. ZHENG*; J. KEIFER. *Neurosci. Grp, Univ. South Dakota Sanford Sch. Med.*
- 9:00 B51 **689.06** Glutamate dependent S6 phosphorylation Involvement of AMPA receptors. M. ESCALANTE LOPEZ*; M. A. FLORES MÉNDEZ; L. C. R. HERNÁNDEZ KELLY; A. ORTEGA. *Cinvestav, Cinvestav.*
- 10:00 B52 **689.07** Rapid repression of the mechanistic/mammalian target of rapamycin complex 1 (mTORC1) shifts the regional expression of disease-related protein ensembles. F. NIERE*; S. NAMJOSHI; E. SONG; Y. MECHREF; K. RAAB-GRAHAM. *Univ. of Texas, Austin, Texas Tech. Univ.*
- 11:00 B53 **689.08** The role of BRD4 in neuronal gene expression. X. LIU*; H. HUANG; T. KIM. *UT Southwestern Med. Ctr.*
- 8:00 B54 **689.09** Bioinformatic identification of genes targeted by microRNA regulated following induction of long-term potentiation *in vivo*. G. JOILIN; D. GUEVREMONT; W. ABRAHAM; C. PRINT; J. M. WILLIAMS*. *Univ. of Otago, Univ. of Otago, The Univ. of Auckland.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 B55 **689.10** Fluoride regulates protein synthesis in cultured Bergmann glia cells. A. N. ALAMILLO*; M. FLORES-MENDEZ; D. RAMIREZ; L. C. R. HERNANDEZ-KELLY; L. M. DEL RAZO; A. ORTEGA. *Cinvestav, Cinvestav.*
- 10:00 B56 **689.11** Motor training changes the properties of layers II/III neurons in the primary motor cortex and glutamatergic synaptic plasticity. H. KIDA*; Y. TSUDA; Y. YAMAMOTO; Y. OWADA; D. MITSUSHIMA. *Yamaguchi university Sch. of Med., Yamaguchi university Sch. of Med.*
- 11:00 B57 **689.12** BDNF expression through CaMKII δ 3 nuclear translocation in dopaminergic neurons. N. SHIODA*; K. FUKUNAGA. *Tohoku Univ.*
- 8:00 B58 **689.13** Dynamics and consequences of the regulation of protein synthesis at the elongation phase in cortical neurons. J. W. KENNEY*; O. SOROKINA; M. GENHEDEN; L. J. FOSTER; J. D. ARMSTRONG; C. G. PROUD. *Univ. of Southampton, Univ. of Edinburgh, Univ. of British Columbia.*
- 9:00 B59 **689.14** Upstream signaling mechanisms for methylation and regulatory DNA protein binding underlying BDNF gene expression during classical conditioning. G. AMBIGAPATHY*; Z. ZHENG; J. KEIFER. *Neurosci Group, Basic Biomed. Sci., Univ. South Dakota Sanford Sch. Med.*
- 10:00 B60 **689.15** TORC1-dependent protein synthesis regulates the excitatory-inhibitory balance and dendritic branching *in vivo* in the retinotectal system of *Xenopus laevis*. D. GOBERT*; A. SCHOHL; E. S. RUTHAZER. *Montreal Neurolog. Institute, McGill Univ.*
- 11:00 C1 **689.16** Changes in molecular phenotype of dorsal root ganglion cells following cruciate ligament transection. G. R. MCCORMACK*; A. G. KANTHASAMY; N. D. JEFFERY. *Iowa State Univ., Iowa State Univ., Iowa State Univ.*
- 8:00 C2 **689.17** Precocious development of visual cortical networks by the removal of molecular restraints leads to dysfunctional vision. P. LEE; R. HERIKSTAD; S. YEN; J. SNG*. *Singapore Inst. For Clin. Sci., SINAPSE (Singapore Inst. for Neurotechnology).*
- 9:00 C3 **689.18** Proteasome modulates transcription-favoring histone modifications at BDNF promoters in long-term synaptic plasticity. S. V. BACH*; P. R. TACON; J. W. MORGAN; A. N. HEGDE. *Wake Forest Univ.*
- 10:00 C4 **689.19** Impaired responsiveness to cocaine in mice lacking the translin/trax RNase complex implicated in processing microRNA. X. FU; D. FUKUDOME; M. NIWA; A. SAWA; Y. CHERN; J. M. BARABAN*. *Johns Hopkins Univ. Sch. Med., Academia Sinica, Johns Hopkins Univ. Sch. Med.*
- 11:00 C5 **689.20** • Neuronal-activity and cAMP repress the transcription of Gpr12 to regulate memory formation. D. G. WHEELER*; K. BAUMGAERTEL; D. ELOW; R. JOHNSON; J. LAPIRA; W. JIANG; R. BARIDO; T. TULLY; R. SCOTT; M. PETERS. *Dart NeuroScience.*
- 8:00 C6 **689.21** Withdrawal of BDNF leads to changes in expression of genes involved in synaptic function. A. MARIGA*; S. GINSBERG; I. NINAN; M. V. CHAO. *NYU Sch. of Med., Nathan Kline Inst., New York Univ. Sch. of Med., New York Univ. Sch. of Med.*
- 9:00 C7 **689.22** Excitation-transcription coupling via the CaV1-CamKII pathway demands a one-two punch: Ca²⁺ priming and voltage-dependent capture. M. R. TADROSS*; B. LI; R. W. TSIEN. *HHMI Janelia Farm, Stanford Univ., NYU.*
- 10:00 C8 **689.23** Contributions of gonadal hormones to gene expression in adult male rat barrel cortex after peripheral nerve transection. J. J. ORCZYK*; R. SETHIA; D. LAUGHLIN; P. E. GARRAGHTY. *Indiana Univ.*
- 11:00 C9 **689.24** TrkB signaling in Parvalbumin expressing neurons is required for basket cell connectivity, network function and results in global behavioral deficits. D. XENOS*; J. A. CARDIN; M. L. SCHWARTZ; F. M. VACCARINO. *Yale Univ., Yale Univ., Yale Univ.*
- 8:00 C10 **689.25** Deep sequencing reveals widespread changes in the population of ribosome-associated mRNAs in excitatory neurons following induction of late-phase LTP. P. B. CHEN*; T. J. O'DELL; C. BLUM; R. KAWAGUCHI; G. COPPOLA; K. C. MARTIN. *UCLA, UCLA, UCLA, UCLA.*
- 9:00 C11 **689.26** Endocannabinoid-mediated long-term depression of inhibition requires presynaptic protein synthesis. T. J. YOUNTS*; M. E. KLEIN; P. E. CASTILLO. *Albert Einstein Col. of Med.*
- 10:00 C12 **689.27** Visualization of the newly-synthesized proteins required for synaptic plasticity in *Xenopus laevis*. H. LIU*; T. J. WISHARD; H. T. CLINE. *The Scripps Res. Inst., The Scripps Res. Inst., The Univ. California, San Diego.*
- 11:00 C13 **689.28** Effects of histone deacetylase inhibitor on massed pattern-induced synaptic plasticity and memory. S. K. SHARMA*; K. P. SHARMA; K. PANDEY. *Natl. Brain Res. Ctr.*
- 8:00 C14 **689.29** Group I mGluR activation leads to an increase in α 2/ δ -2 calcium channel subunit levels. L. P. CACHEAUX*; F. NIERE; K. RAAB-GRAHAM. *Univ. of Texas at Austin.*
- 9:00 C15 **689.30** Characterizing c-fos enhancer function in activity-dependent neuronal gene expression. J. JOO*; T. KIM. *Univ. of Texas Southwestern Med. Ctr., Univ. of Texas Southwestern Med. Ctr.*

POSTER

690. Alzheimer's disease: Cognitive Function

Theme C: Disorders of the Nervous System

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

- 8:00 C16 **690.01** Loss of NMDAR-dependent LTP coincides with deficits in spatial working memory in 3xTg-AD mice. J. CLARK*; M. FURGERSON; J. D. CRYSTAL; M. FECHHEIMER; R. FURUKAWA; J. J. WAGNER. *Univ. of Georgia, Univ. of Georgia, Indiana Univ., Univ. of Georgia.*
- 9:00 C17 **690.02** Cortical plasticity in type-2 diabetes mellitus and its relationship to cognitive decline. P. J. FRIED; L. SCHILBERG; A. BREM; N. BOLO; H. THÉORET; A. PASCUAL-LEONE*. *Beth Israel Deaconess Med. Ctr., Maastricht Univ., Univ. of Oxford, Beth Israel Deaconess Med. Ctr., Univ. of Montreal, Beth Israel Deaconess Med. Ctr.*
- 10:00 C18 **690.03** • SUVN-G3031: A novel and potent histamine H3 receptor antagonist for potential treatment of cognitive deficits. R. MEDAPATI; N. MUDDANA; A. K. SHINDE*; P. JAYARAJAN; V. MEKALA; S. IRAPANNANAVAR; V. KANAMARLAPUDI; R. PONNAMANENI; M. FAHEEM; V. GOYAL; S. PANDEY; P. GANGADASARI; R. NIROGI. *Suven Life Sci.*
- 11:00 C19 **690.04** The Association of aneuploidy with the development of dementia in neurodegenerative diseases. J. CANEUS*. *University Of Colorado, AMC.*

- 8:00 C20 **690.05** ● Phloroglucinol rescues the impairment in synaptic plasticity and memory in an animal model of Alzheimer's disease. E. YANG*; J. RYU; M. CHOI; H. KIM. *Seoul Natl. Univ.*
- 9:00 C21 **690.06** Nature and extent of person recognition impairments associated with capgras syndrome in lewy body dementia. C. FIACCONI*; V. BARKLEY; E. C. FINGER; N. CARSON; D. DUKE; S. ROSENBAUM; A. GILBOA; S. KÖHLER. *Univ. of Western Ontario, York Univ., York Univ., Univ. of Toronto.*
- 10:00 C22 **690.07** Impact of chronic NR2B reduction in a mouse model. G. RAMMES*; M. WULF; K. KELLERMANN; J. DEUSSING; C. WOTJAK; C. PARSONS. *Clin. Rechts der Isar, MPI of Psychiatry, Merz Pharmaceuticals.*
- 11:00 C23 **690.08** Increased presence of cells co-expressing Sox2 and NeuN in the dentate gyrus of cognitively-intact individuals with substantial Alzheimer's disease neuropathology. O. ZOLOCHEVSKA*; V. GHIRARDI; N. BJORKLUND; R. WOLTJER; M. MICCI; G. TAGLIALATELA. *UTMB, Oregon Hlth. & Sci. Univ., UTMB, UTMB.*
- 8:00 C24 **690.09** Elucidating the cognitive deficits associated with Doxorubicin treatment. A. H. ALHOWAIL*; S. BHATTACHARYA; D. BHATTACHARYA; J. BLOEMER; M. DHANASEKARAN; B. SMITH; R. ARNOLD; V. SUPPIRAMANIAM. *Auburn Univ., Auburn Univ.*
- 9:00 C25 **690.10** ● Memory improvement in aging community dwelling seniors: A single-blind study of two antioxidant supplements. W. K. SUMMERS*; R. L. MARTIN; Y. LIU; G. M. MARSH. *ALZcorp, Univ. of Pittsburgh.*
- 10:00 C26 **690.11** Three weeks of transcranial direct current stimulation increased glucose metabolism of mild cognitive impairment. J. KIM*; Y. SHIN; H. LEE; K. YUN; I. SONG; Y. CHUNG. *Ybrain Res. Inst., Korea Advanced Inst. of Sci. and Technol. (KAIST), Caltech, Col. of Medicine, The Catholic Univ., Col. of Medicine, The Catholic Univ.*
- 11:00 C27 **690.12** Fructus mume improved memory impairments and reduced neuroinflammation in 5xFAD transgenic mice. J. PARK; J. MA; W. JEON; J. HAN*. *Konkuk Univ., Korea Inst. of Oriental Med.*
- 8:00 C28 **690.13** Impaired spatial memory retrieval is related to dysfunctional Arc protein expression in the CA3 region of a mouse model of Alzheimer's disease. J. MORIN; G. VELAZQUEZ-CAMPOS; A. AGUILAR-VAZQUEZ; A. PINEDO-VARGAS; C. PEREZ-CRUZ; F. BERMUDEZ-RATTONI; S. DIAZ-CINTRAS*. *UNAM Campus Juriquilla, CINVESTAV, Inst. of Cell. Physiology, UNAM.*
- 9:00 C29 **690.14** Dynamics of cognitive-enhancing erk -ppary protein complexes. D. CORTEZ*; T. J. URBAN; A. L. DIMET; J. B. JAHRLING; L. DENNER; K. T. DINELEY. *UTMB, UTMB.*
- 10:00 C30 **690.15** Abca1 deficiency significantly affects neurite morphology and cognitive function in mice. A. Y. CARTER*; N. F. FITZ; V. M. TAPIAS; E. L. CASTRANIO; I. LEFTEROV; R. KOLDAMOVA. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 11:00 C31 **690.16** Memory deficits in Alzheimer's disease model mice coincide with appearance of amyloid plaques and are preceded by insensitivity to glucose enhancement of memory. L. A. NEWMAN*; D. L. KOROL; P. E. GOLD. *Syracuse Univ.*
- 8:00 C32 **690.17** Simvastatin rescues cognitive and cerebrovascular deficits induced by high cholesterol diet in transgenic TGF mice. X. TONG; E. HAMEL*. *Montreal Neurolog. Inst.*

- 9:00 C33 **690.18** Effects of ketogenic diets on cognition and development of Alzheimer's disease (ad) pathology in an ad mouse model. J. P. HARNEY*; J. GRIZZANTI; M. BARRY; K. MCCARTHY; D. BUTLER. *Univ. Hartford, Univ. of Hartford.*
- 10:00 C34 **690.19** Leukotriene receptor inhibition promotes neurogenesis, decreases neuroinflammation and improves cognition in aging. J. MARSCHALLINGER*; S. COUILLARD-DESPRES; B. KLEIN; C. SCHMUCKERMAIR; S. ILLES; R. CORAS; I. BLUEMCKE; N. SINGEWALD; L. AIGNER. *PMU Salzburg, PMU Salzburg, Leopold-Franzens-University of Innsbruck, Friedrich-Alexander-University Erlangen-Nuremberg.*
- 11:00 C35 **690.20** Rats with chronic bilateral common carotid artery occlusion showed impairments of intra-dimensional shift in attentional set shifting task. B. CHOI*; D. KIM; W. JEON; J. HAN. *Konkuk Univ., Korea institute of oriental medicine.*
- 8:00 C36 **690.21** Older adults with Alzheimer's disease and normal cognition demonstrate successful learning of an unseen category prototype. J. S. PHILLIPS*; N. MIN; P. KOENIG; C. MCMILLAN; E. E. SMITH; M. GROSSMAN. *Univ. of Pennsylvania, Columbia Univ.*

POSTER

691. Neuropharmacology and Neurotransmission in Dementia

Theme C: Disorders of the Nervous System

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

- 8:00 C37 **691.01** Cholinergic and galaninergic profiles in the domestic pig forebrain (*Sus scrofa domestica*). L. MAHADY*; E. J. MUFSON; S. E. PEREZ. *Rush Univ.*
- 9:00 C38 **691.02** The GLP-1 analog liraglutide improves memory function and prevents hippocampal neuronal loss in a senescence-accelerated mouse prone (SAMP8) model of Alzheimer's disease. H. H. HANSEN*; P. BARKHOLT; K. FABRICIUS; M. NIEHOFF; J. E. MORLEY; J. JELSING; C. PYKE; L. B. KNUDSEN; S. A. FARR; N. VRANG. *Gubra, St. Louis Univ., St. Louis Univ. Sch. of Med., Novo Nordisk, Veterans Affairs Med. Ctr.*
- 10:00 C39 **691.03** Girk channel, a new target in early stages of Alzheimer's disease. M. O. NAVA-MESA; L. JIMENEZ-DIAZ; J. YAJEYA; J. NAVARRO-LOPEZ*. *Univ. of Rosario, Univ. of Castilla-La Mancha, Univ. of Salamanca, Univ. of Castilla-La Mancha.*
- 11:00 C40 **691.04** Girk and KCNQ channels are targets for amyloid- β in the rodent hippocampus. J. MAYORDOMO-CAVA; J. NAVARRO-LÓPEZ; A. GRUART; J. M. DELGADO-GARCÍA; J. YAJEYA; L. JIMENEZ-DIAZ*. *Neurophysiol. and Behavior Lab, Univ. Castilla La-Mancha, Univ. Castilla La-Mancha, Neurophysiol. and Behavior Lab., Div. of Neurosciences, Pablo de Olavide Univ., Physiol. and Pharmacology, Univ. of Salamanca, Univ. Castilla La-Mancha.*
- 8:00 C41 **691.05** *In vitro* pharmacological and electrophysiological profile of S 47445, a novel positive allosteric modulator of AMPA type glutamate receptors. L. DANOBER*; J. THOMAS; S. CHALLAL; N. ROGEZ; K. ALBINET; F. IOP; N. VILLAIN; A. CORDI; P. LESTAGE. *Inst. De Recherches SERVIER, PIT-NPS, Inst. de Recherches SERVIER, PEX-RB.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 C42 **691.06** ● *In vivo* pharmacological profile of S 47445, a novel positive allosteric modulator of AMPA type glutamate receptors. C. LOUIS*; L. DANOBER; I. CARRIÉ; N. DUMAS; K. ALBINET; K. LLOPIS; A. ROGER; M. GANDON; A. HUGOT; M. KRENTNER; J. THOMAS; N. ROGEZ; M. VANDESQUILLE; A. KRAZEM; D. BÉRACOCHEA; V. BERTAINA-ANGLADE; C. DRIEU LA ROCHELLE; C. JUNGES; M. BERTRAND; S. BILLIALD; C. TORDJMAN; A. CORDI; P. LESTAGE. *Inst. de Recherches Servier, Inst. de Recherches Servier, CNRS UMR 5287 - INCIA, Biotrial, Inst. de Recherches Servier, Inst. de Recherches Servier.*
- 10:00 C43 **691.07** New insight about the mechanism of co-agonist. L. MARGER*; S. BERTRAND; D. BERTRAND. *HiQScreen Sàrl, HiQScreen, HiQScreen.*
- 11:00 C44 **691.08** Increased GABA inhibition impairs long-term potentiation and memory in a mouse model of Alzheimer's disease. Z. WU*; Z. GUO; G. CHEN. *Huck Life Sci., Huck Inst. of Life Sci.*
- 8:00 C45 **691.09** Mechanism involved in the enhanced [3H]-ACh release induced by a quaternary derivate of l-hyoscyamine in rat cortical synaptosomes. F. M. NOGUEIRA*; M. T. R. LIMA-LANDMAN; A. J. LAPA; C. SOUCCAR. *Escola Paulista de Medicina/UNIFESP, Amazon Biotech. Ctr.*
- 9:00 C46 **691.10** Investigation of the relationship between aromatase and seladin-1 *in vivo* and *in vitro*. H. KARAHAN*; S. LULE; T. KUCUKKILINC; A. ERCAN; P. KELICEN UGUR. *Hacettepe Univ., Hacettepe Univ., Hacettepe Univ., Hacettepe Univ.*
- 10:00 C47 **691.11** ● The 5-HT₆ antagonist Lu AE58054 potentiates the effects of acetylcholinesterase inhibition on extracellular acetylcholine levels and theta and gamma oscillations in the rat. K. F. HERRIK*; M. A. FORASTER; N. RICHARD; M. GARMER; J. F. BASTLUND; I. E. M. DE JONG; A. MØRK. *H. Lundbeck A/S, Lundbeck.*
- 11:00 C48 **691.12** Role of β 1-adrenergic signaling in Alzheimer's disease (AD). M. SHAMLOO*; L. COUTELLIER; P. MEMAR ARDESTANI. *SINTN, Stanford Univ. Sch. of Med., Stanford university, Stanford Univ.*
- 8:00 C49 **691.13** WITHDRAWN.
- 9:00 C50 **691.14** The GLP-1 analog liraglutide improves motor function, survival rate and reduces neurofibrillary tangle load in the transgenic hTauP301L tauopathy mouse model of Alzheimer's disease. P. BARKHOLT; K. FABRICIUS; J. JELSING; D. TERWEL; H. H. HANSEN; C. PYKE; L. B. KNUDSEN; N. VRANG*. *Gubra, reMYND, Novo Nordisk.*
- 10:00 C51 **691.15** The role of zinc in A β -dependent synaptotoxic mechanisms in Alzheimer's disease. E. VOGLER*; J. BUSCIGLIO. *Univ. of California, Irvine.*
- 11:00 C52 **691.16** A précised investigation of the consequences of defects in glucose metabolism on optimal functioning of neurons in Alzheimer's disease. A. KUMAR*; R. R. RATAN. *Burke Medical Research Institute, Cornell Universi, Burke Medical Research Institute, Cornell University.*
- 8:00 C53 **691.17** Novel Syt1-PS1 interactions and their implications in Alzheimer's disease pathogenesis. K. M. ZOLTOWSKA*; A. KUZUYA; M. ARIMON; X. LI; S. SVIRSKY; O. BEREZOVSKA. *Harvard Med. School/MGH.*
- 9:00 C54 **691.18** ● Abeta oligomers are pharmacologically behaved ligands displaced by small molecule antagonists. C. SILKY*; N. IZZO; K. MOZZONI; C. REHAK; R. YURKO; G. RISHTON; G. LOOK; H. SAFFERSTEIN; S. CATALANO. *Cognition Therapeut. Inc, Cognition Therapeut.*
- 10:00 C55 **691.19** The expression of ProSAP/Shank proteins in development and aging in healthy and Alzheimer's disease brain. R. CHHABRA*; J. BOCKMANN; T. BOECKERS; A. M. GRABRUCKER. *Inst. For Anat. and Cell Biol., Inst. For Anat. and Cell Biol.*
- 11:00 C56 **691.20** Symmetric and frequent deposition of misfolded tau oligomers at presynaptic and postsynaptic terminals in Alzheimer's disease. H. TAI*; B. Y. WANG; A. SERRANO-POZO; M. P. FROSCH; T. SPIRES-JONES; B. T. HYMAN. *Natl. Taiwan Univ., Univ. of Iowa Hosp., Massachusetts Gen. Hosp., Univ. of Edinburgh, Massachusetts Gen. Hosp.*
- 8:00 C57 **691.21** ● Tau-dependent Kv4.2 depletion and dendritic hyperexcitability in a mouse model of Alzheimer's disease. A. M. HALL*; B. T. THROESCH; D. A. HOFFMAN; E. D. ROBERSON. *Univ. of Alabama at Birmingham, Eunice Kennedy Shriver Natl. Inst. for Child Hlth. and Development, Natl. Inst. of Hlth.*
- 9:00 C58 **691.22** Accrual of oligomeric tau in synapses and glial reaction are more proximate correlates to cognition than plaques and tangles. I. BARROETA-ESPAR*; B. GÓMEZ PÉREZ-NIEVAS; A. MELTZER; M. MARQUIE; F. GARCÍA-POLITE; K. MOULDER; J. C. MORRIS; J. E. PARISI; R. PETERSEN; M. IKONOMOVIC; O. LÓPEZ; J. VONSATTEL; R. MAYEAUX; B. T. HYMAN; T. GÓMEZ-ISLA. *Massachusetts Gen. Hosp., Washington Univ., Mayo Clin., Univ. of Pittsburgh, Columbia Univ.*
- 10:00 C59 **691.23** Amyloid-beta impairs postsynaptic function of human iPSC derived neurons. K. NIEWEG*; A. ANDREYEVA; B. STEGEN; G. TANRIÖVER; K. GOTTMANN. *Philipps Univ. Marburg, Univ. Düsseldorf.*
- 11:00 C60 **691.24** ● Dysregulation of an activity-regulated microRNA, miR-188, is associated with cognitive dysfunctions in Alzheimer's disease. H. KIM*; K. LEE; O. KWON; S. PARK; M. KIM; Y. LEE; J. KIM; H. KIM. *Seoul Natl. Univ., POSTECH, Seoul Natl. Univ.*
- 8:00 C61 **691.25** Enhancement of P2X2 expression and Ca²⁺ overload induce a mitochondrial dysfunction on neurons treated with A β peptide. J. FUENTEALBA*; P. GODOY; C. BASTIDAS; A. RAMIREZ; F. SAEZ-ORELLANA; J. GUZMAN; M. CANO-ABAD; A. MORENO-ORTEGA; L. AGUAYO. *Univ. de Concepcion, Univ. of Concepcion, U de Concepcion, U de Concepcion, Univ. Autonoma de Madrid.*

POSTER

692. Parkinson's disease: Animal Intoxication Models

Theme C: Disorders of the Nervous System

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

- 8:00 C62 **692.01** ▲ L-DOPA treatment improve motor alterations induced by manganese exposure. J. SANCHEZ*; A. GUTIERREZ-VALDEZ; J. ORDOÑEZ-LIBRADO; V. ANAYA-MARTINEZ; E. MONTIEL-FLORES; J. ESPINOSA-VILLANUEVA; P. ALEY-MEDINA; F. HUERTA-OLIVAREZ; A. TRUJILLO-MARTINEZ; A. SANCHEZ-SORIA; M. AVILA-COSTA. *Fes-Iztacala, UNAM.*

- 9:00 C63 **692.02** ▲ In the new model of Parkinson's disease induced by inhalation of manganese the motor alterations are developed gradually. T. IBARRA-GUTIERREZ; S. SANCHEZ-SORIA; M. MORENO-RIVERA; A. GUTIERREZ-VALDEZ; E. MONTIEL-FLORES; J. RAMOS-JIMENEZ; V. RAMIREZ-ROSAS; A. SIERRA-SANCHEZ; M. AVILA-COSTA; V. ANAYA-MARTINEZ*. *UNAM Campus Iztacala, Univ. Autónoma de la Ciudad de México, CINVESTAV-IPN*.
- 10:00 C64 **692.03** Acute administration of pramipexole increases phosphorylation of GSK-3 β in the striatum of rats in an early-stage model of Parkinson's disease. S. TEDFORD*; A. PERSONS; T. C. NAPIER. *Dept. of Pharm., and Ctr. for Compulsive Behavior and Addiction, RUSH Univ., Rush Univ.*
- 11:00 C65 **692.04** Silibinin attenuates dopaminergic neuronal loss in the Parkinson's disease mouse model by stabilizing mitochondrial membrane potential. Y. LEE; J. KIM; S. JI; H. CHUN; K. LEE; J. LEE*. *Pusan Natl. Univ.*
- 8:00 C66 **692.05** Impairments in attentional set-shifting in a rat model of Parkinson's disease. A. TRUONG*; K. OTTO. *Purdue Univ., Purdue Univ.*
- 9:00 C67 **692.06** ● Dopamine efflux from residual dopamine neurons is increased after intrastratial 6-OHDA. Z. SHU; A. E. RUPERT; S. CASTRO; J. D. JAUMOTTE; A. C. MICHAEL; M. J. ZIGMOND*. *Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 10:00 C68 **692.07** ● Effects of pedunculo-pontine nucleus stimulation on gait improvement in different 6-hydroxydopamine parkinsonian rats. W. ZHANG*; M. ZHOU; P. WEN; Y. YANG; W. ZHENG; J. WANG. *Southern Med. Univ., Southern Med. Univ.*
- 11:00 C69 **692.08** The cardiac denervation induced by 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP) results in structural changes in myocardium of mice. T. H. SASAHARA*; M. MACHADO. *UNESP*.
- 8:00 C70 **692.09** ● Comparison of striatal and nigral administration of CDNF in 6-OHDA rat model of PD. M. H. VOUTILAINEN*; K. ALBERT; J. RENKO; A. PANHELAINEN; R. K. TUOMINEN; M. AIRAARA; M. SAARMA. *Univ. of Helsinki, Univ. of Helsinki.*
- 9:00 C71 **692.10** Development of a bilateral 6-OHDA rat model for the early phase of Parkinson's disease (PD). A. MICHEL*; V. BERTAINA-ANGLADE; F. HUSTADT; E. CAYRE; C. DRIEU-LA-ROCHELLE; D. SCHELLER. *UCB Biopharma, Biotrial Pharmacol.*
- 10:00 C72 **692.11** Sub-chronic MPTP exposure in aged mice: Motor and non-motor phenotype, *in vivo* DAT integrity and tissue pathological Parkinson's disease markers in chronic follow-up study. R. O. PUSSINEN*; J. HARRIS; C. BUENSUCESO; M. CERRADA-GIMENEZ; A. NURMI; T. HUHTALA; U. HERZBERG. *Charles River Discovery Res. Services, Celgene Cell. Therapeut.*
- 11:00 D1 **692.12** Depression due to locus coeruleus (LC) neuronal loss: Dose-response, pharmacology and electrophysiology. P. SZOT*; A. FRANKLIN; C. M. PALOMO; Y. WANG; I. VIDAURRAGA; L. UGEDO; M. RASKIND. *Puget Sound Hlth. Care Syst., Univ. of the Basque Country, Univ. of the Basque Country.*
- 8:00 D2 **692.13** MPTP mouse model of Parkinson's disease exhibits normal outer retinal function. M. BEGUM*; C. R. BISHOP; D. Y. TS'O. *SUNY Upstate Med. Univ., Binghamton Univ.*
- 9:00 D3 **692.14** MPTP-induced mouse model of Parkinson's disease impairs reconsolidation and enhances extinction in contextual fear memory. K. KINOSHITA*; Y. MUROI; T. ISHII. *Obihiro Univ.*
- 10:00 D4 **692.15** ● The progressive BSSG rat model of Parkinson's disease: Featuring prodromal indications, early asymmetry, progressive development, anatomical spread of synuclein aggregates, and late-stage cognitive deficits. H. A. ROBERTSON*; C. A. SHAW; D. BARANOWSKI; D. G. KAY; J. VAN KAMPEN. *Dalhousie Univ. Fac Med., Neurodyn Inc., Univ. of British Columbia.*
- 11:00 D5 **692.16** Phosphatidylcholine and sphingolipid lipid alterations in the substantia nigra of 6-OHDA treated rats. K. FARMER*; C. A. SMITH; S. HAYLEY; J. C. SMITH. *Carleton Univ., Carleton Univ.*
- 8:00 D6 **692.17** A novel dopamine depletion paradigm: Comparison of behavioral deficits following bilateral gradual and acute administration of 6-hydroxydopamine in mice. A. M. WILLARD*; R. S. BOUCHARD; A. H. GITTIS. *Carnegie Mellon Univ.*
- 9:00 D7 **692.18** Neurodegeneration of the locus coeruleus induces hyperalgesia in sprague dawley rats. J. C. TOUCHETTE*; G. H. WILKEN; D. SALVEMINI; H. MACARTHUR. *St. Louis Univ., St. Louis Univ.*
- 10:00 D8 **692.19** Functional and morphological long-term effects of DBS in 6-OHDA hemiparkinsonian rats. K. BADSTÜBNER*; I. WEBER; A. BUSCH; M. WARKENTIN; U. GIMSA; D. BEHREND; R. BENECKE; J. GIMSA; E. MIX. *Univ. of Rostock, Univ. of Cologne, Univ. of Rostock, Leibniz Inst. for Farm Animal Biol., Univ. of Rostock.*
- 11:00 D9 **692.20** 6-hydroxydopamine striatal lesions in creatine transporter deficient mice results in heightened parkinsonian symptoms. Z. I. ABDULLA*; E. R. HAUTMANN; K. C. UDOBI; A. N. KOKENGE; M. R. SKELTON. *Cincinnati Children's Res. Fndn., Univ. of Cincinnati, Univ. of Cincinnati, Cincinnati Children's Res. Fndn.*
- 8:00 D10 **692.21** Impairments in gait, posture and complex movement control in rats modeling the multi-system, cholinergic-dopaminergic losses in PD. K. PHILLIPS*; A. KUCINSKI; R. ALBIN; M. SARTER. *Univ. of Michigan.*
- 9:00 D11 **692.22** Irregularly patterned deep brain stimulation reduces pathological cortical activity in hemiparkinsonian rats. S. R. SUMMERSON*; B. AAZHANG; C. T. KEMERE. *Rice Univ.*
- 10:00 D12 **692.23** Non-motor behavioral deficits induced by a bilateral 6-OHDA lesion in the striatum of the rat. D. PUSHETT*; E. ESNEAULT; E. HAYES; A. MITTUR. *Porsolt SAS, Impax Pharmaceuticals.*
- 11:00 D13 **692.24** Time-dependent behavioral effect of the Hypericum polyanthemum cyclohexane extract administration in an animal model of Parkinson's disease induced by 6-hydroxydopamine. T. M. SOUZA*; M. BORSOI; C. BATASSINI; C. LAZZARETTI; R. B. SILVESTRI; A. H. BETTI; C. B. ANTONIO; G. L. VON POSER; S. M. K. RATES. *Univ. Federal do Rio Grande do Sul.*
- 8:00 D14 **692.25** Parkinson's disease as a consequence of traumatic brain injury: Evidence obtained in an experimental model. P. A. DE OLIVEIRA*; F. C. MATHEUS; J. BEN; M. L. SCHWARZBOLD; R. WALZ; R. D. S. PREDIGER. *Federal Univ. of Santa Catarina, Federal Univ. of Santa Catarina.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 D15 **692.26** Parkinsonian motor effects induced by the VMAT-2 inhibitor tetrabenazine is exacerbated by co-administration of the SSRI fluoxetine in rodents. S. J. PODURGIEL*; M. N. MILLIGAN; L. J. PURCELL; S. E. YOHAN; M. CORREA; J. D. SALAMONE. *Univ. of Connecticut, Univ. Jaume I.*

POSTER

693. Parkinson's Disease: Cellular Mechanisms

Theme C: Disorders of the Nervous System

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

- 8:00 D16 **693.01** • Multimodal imaging analysis of neuropathologic heterogeneity in Parkinson's disease. T. MADHYASTHA*; J. ZHANG; J. LEVERENZ; S. HU; T. GRABOWSKI. *Univ. of Washington, Univ. of Washington, Cleveland Clin., Univ. of Washington.*
- 9:00 D17 **693.02** Possible role of aquaporin-4 water channels in Parkinson's disease. A. PRYDZ; K. STAHL; M. PUCHADES; N. DAVARPAHEH; M. NADEEM; V. GUNDERSEN; P. J. HELM*; M. AMIRI MOGHADDAM. *Univ. of Oslo, Univ. of Oslo.*
- 10:00 D18 **693.03** Pathological changes in RNA binding proteins in Parkinson's disease. C. B. TRENGROVE*; J. KIMSAL; D. IRWIN; T. SHUCK; J. TROWJANOWSKI; B. WOLOZIN. *Boston Univ., Univ. of Pennsylvania Sch. of Med.*
- 11:00 D19 **693.04** • Transcriptional inhibitors Bach1 and Bach2 oppose Nrf2 function and modulate antioxidant production. E. A. WAXMAN*; B. K. JOSEPH. *Med. Diagnos. Labs.*
- 8:00 D20 **693.05** The sleep modulating peptide orexin-B protects midbrain dopamine neurons from degeneration. P. P. MICHEL*; S. GUERREIRO; C. FLORENCE; E. ROUSSEAU; S. HAMADAT; E. C. HIRSCH. *BRAIN AND SPINAL CORD INSTITUTE (ICM).*
- 9:00 D21 **693.06** A systems biological approach to Parkinson's disease. K. F. HEIL*; O. SOROKINA; J. D. ARMSTRONG. *Univ. of Edinburgh, Sch. of Informatics.*
- 10:00 D22 **693.07** Regulation of the Parkinson's disease kinase LRRK2 by phosphorylation and cellular stress. A. MAMAS*; R. CHIA; A. BEILINA; C. HALL; P. A. LEWIS; M. R. COOKSON; R. BANDOPADHYAY. *Natl. Inst. On Aging, NIH, UCL Inst. of Neurol., UCL Inst. of Neurol., Georgetown Univ. Med. Ctr., Univ. of Reading.*
- 11:00 D23 **693.08** Dysregulated LRRK2 signalling cascade leading to microtubule destabilisation in Parkinson's disease. L. PELLEGRINI*; D. BERWICK; V. SPAIN; J. NIXON-ABELL; M. COOKSON; K. HARVEY. *UCL Univ. Col. London, UCL Univ. Col. London, Univ. Col. London, Natl. Inst. Hlth. (NIH).*
- 8:00 D24 **693.09** Parkin regulates kainate receptor by interacting with the GluK2 subunit. A. MARASCHI*; A. CIAMMOLA; A. FOLCI; F. SASSONE; S. SATO; Y. OKADA; N. KUZUMAKI; H. OKANO; N. HATTORI; M. PASSAFARO; J. SASSONE. *Inst. Auxologico Italiano, CNR institute of neuroscience, Juntendo Univ. Sch. of Med., Keio Univ. Sch. of medicine.*

- 9:00 D25 **693.10** Loss of parkin function increases KAR currents and associates with excitotoxicity. F. SASSONE*; A. MARASCHI; A. CIAMMOLA; A. FOLCI; L. MAPELLI; G. RONZITTI; L. MURRU; G. CAPPELLETTI; V. SILANI; E. CHIEREGATTI; M. PASSAFARO; J. SASSONE. *Inst. Auxologico Italiano, CNR institute of neuroscience, Univ. of Pavia, Inst. Italiano di Tecnologia, Univ. of Milan, Dino Ferrari center.*
- 10:00 D26 **693.11** Paris(znf746) regulates levels of ribosomal RNA in Parkinson's disease. H. KANG*; J. LEE; J. SHIN. *Sungkyunkwan Univ. Col. of Med.*
- 11:00 D27 **693.12** Downregulation of Pink1 and parkin influences the activation of tyrosine kinase receptors in dopaminergic cells. G. ARBOLEDA*; A. NIÑO; H. ARBOLEDA. *Natl. Univ. of Colombia.*
- 8:00 D28 **693.13** miRNA and autophagy in the pharmacological Gaucher mouse model. S. K. MAK*; N. KO; V. P. CHOU; D. A. DI MONTE; A. B. MANNING-BOG. *SRI Intl., German Ctr. for Neurodegenerative Dis.*
- 9:00 D29 **693.14** Compensatory T-type calcium channel activity alters dopamine D2-autoreceptor responses of dopamine Substantia nigra neurons from Cav1.3 L-type calcium channel deficient mice. J. DUDA*; C. POETSCHKE; E. DRAGICEVIC; J. BENKERT; T. P. SNUTCH; J. STRIESSNIG; B. LISS. *Inst. for Applied Physiology, Ulm Univ., Michael Smith Laboratories, Univ. of British Columbia, Dept. of Pharmacol. and Toxicology, Ctr. for Mol. Biosciences, Univ. of Innsbruck.*
- 10:00 D30 **693.15** Prolyl oligopeptidase directly interacts with alpha-synuclein and enhances its dimerization. M. H. SAVOLAINEN*; X. YAN; T. T. MYÖHÄNEN; H. J. HUTTUNEN. *Univ. of Helsinki, Univ. of Helsinki.*
- 11:00 D31 **693.16** α- and γ-syn immunopathology in the brain of patients with neurodegenerative diseases. I. SURGUCHEVA*; K. NEWELL; A. SURGUCHOV. *VAMCKC, Kansas Univ. Med. Ctr., Kansas Univ. Med. Ctr.*
- 8:00 D32 **693.17** Trafficking of alpha-synuclein in neurons studied with timeSTAMP genetic probes and correlated LM and 3D EM. D. BOASSA*; S. PHAN; P. NGUYEN; J. HU; M. ELLISMAN. *Univ. of California San Diego, Univ. of California San Diego.*
- 9:00 D33 **693.18** Post-transcriptional regulation of α-synuclein by LRRK2 through interactions with microRNAs in neurodegenerative diseases. J. BOON*; A. ABELIOVICH; B. WOLOZIN. *Boston Univ. Sch. of Med., Columbia Univ., Boston Univ.*
- 10:00 D34 **693.19** MitoNEET is activated by oxidative stress resulting in kinase signaling. L. LIN; W. J. GELDENHUYS; J. G. ROSS; R. T. CARROLL*. *Northeast Ohio Med. Univ.*
- 11:00 D35 **693.20** ▲ Study of mitochondrial death pathways in different cellular models of Parkinson's disease: Effect of beta-Estradiol. M. COMBES*; P. POINDRON; N. CALLIZOT. *Neuro-Sys, NeuroSys.*
- 8:00 D36 **693.21** Selective vulnerability in the telencephalic cortex; implications for topographic neurodegeneration. J. POSIMO*; A. GLEIXNER; R. LEAK. *Duquesne Univ.*
- 9:00 D37 **693.22** The role of parkin on defective mitochondria in *Drosophila*. C. HUANG*; R. J. YOULE. *NINDS/NIH.*
- 10:00 D38 **693.23** • Using LUHMES cells as a model system to study dopaminergic neuron cell biology and Parkinson's disease. T. H. DAVIS*; A. BAL; J. FOULKE; L. CHEN; F. TIAN. *ATCC, ATCC.*

- 11:00 D39 **693.24** ▲ The co-culturing of dopamine-like cells with glia to improve cellular replacement treatment in Parkinson's disease patients. J. W. WATTERS*; R. WELCHKO; G. SHALL; S. PARKER; M. JEAKLE; L. SIEGAL; J. ROSSIGNOL; M. LU; G. DUNBAR. *Field Neurosciences Inst. Lab. For Resto, Program in Neurosci., Central Michigan Univ., Col. of Med., Field Neurosciences Inst.*
- 8:00 D40 **693.25** Regulation of JNK and c-Jun in experimental parkinsonism and L-DOPA-induced dyskinesia. G. SPIGOLON*; G. MENCATTELLI; S. VAN DER SPEK; M. FEYDER; M. TROPANO; A. VERCELLI; G. FISONE. *Karolinska Inst., Neurosci. Inst. Cavalieri Ottolenghi.*
- 9:00 D41 **693.26** D1R-mediated modulation of synaptic transmission in the bed nucleus of the stria terminalis of 6-OHDA lesioned rats with L-DOPA-induced dyskinesia. C. DI PROSPERO*; M. BASTIDE; E. R. HAWKEN; M. H. NAUGHTON; C. NORMANDEAU; F. GEORGES; E. BEZARD; E. C. DUMONT. *Queen's Univ., Univ. de bordeaux.*
- 10:00 D42 **693.27** Generation of cell line models using the Zinc Finger Nuclease (ZFN) to preserve native regulatory elements for efficient high-throughput drug screenings. D. P. HUYNH*; W. DENSITHONG; S. PAUL; K. K. K. THAI; S. M. PULST. *Univ. Utah.*

POSTER

694. Parkinson's Disease

Theme C: Disorders of the Nervous System

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

- 8:00 D43 **694.01** Tyrosine hydroxylase as a genetic contributor to Parkinson's disease progression. I. TEKIN*; N. CARKACI-SALLI; M. M. LEWIS; R. B. MAILMAN; X. HUANG; K. E. VRANA. *Pennsylvania State Univ., Pennsylvania State Univ.*
- 9:00 D44 **694.02** L-DOPA alters dopamine and serotonin release independently from electrophysiological changes in the dorsal raphe nucleus *in vivo*: Relevance to dyskinesia. C. MIGUELEZ*; S. NAVAILLES; C. DELAVILLE; L. MARQUIS; M. LAGIERE; A. BENAZZOUZ; L. UGEDO; P. DE DEURWAERDÈRE. *UPV/EHU, Univ. de Bordeaux.*
- 10:00 D45 **694.03** Extra-striatal dopaminergic activity and compensatory mechanisms in parkinsonian monkeys. H. IWAMURO*; I. TRIGO-DAMAS; J. OBESO. *Dept Neurosurg, Tokyo Metropolitan Neu, CIMA, Univ. de Navarra and CIBERNED.*
- 11:00 D46 **694.04** Selective transporter blockade reveals differential contributions of monoamine transporters to L-DOPA's motor effects in hemi-parkinsonian rats. M. CONTI*; S. MEADOWS; M. MELIKHOV-SOSIN; E. NUSS; J. HALLMARK; N. VILCEUS; C. BISHOP. *Binghamton Univ.*
- 8:00 D47 **694.05** Modulation of mGluR4 and mGluR5 expression during Parkinson disease-like neurodegeneration. A. BROWNELL*; A. ZHU; K. KIL; J. CHOI; B. JENKINS; P. POUTIAINEN. *Martinos Biomed. Imaging Center/ Massachusetts Gen. Hosp., Massachusetts Gen. Hosp.*
- 9:00 D48 **694.06** Impulsivity decreases dopaminergic neuronal vulnerability and inhibitory control following nigral neurodegeneration and dopamine replacement therapy. S. ANSQUER; M. ENGELN; E. DUGAST; N. DUTHEIL; E. BEZARD; D. BELIN; P. FERNAGUT*. *Univ. de Poitiers, Univ. de Bordeaux, Inst. Des Maladies Neurodegeneratives.*
- 10:00 D49 **694.07** L-dopa induced decreases in serotonin neurons within the dorsal raphe nucleus are prevented by ascorbic acid. B. J. STANLEY*; B. K. YAMAMOTO. *Univ. of Toledo Med. Ctr.*
- 11:00 D50 **694.08** Acute MDMA intoxication abolishes L-DOPA-induced dyskinesia and behavioral hyperactivity in MPTP monkey model of Parkinson's disease. M. BEAUDOIN-GOBERT*; E. MÉTÉREAU; J. EPINAT; S. NEUMANE; S. DUPERRIER; F. LIGER; C. TOURVIELLE; D. LE BARS; L. TREMBLAY; V. SGAMBATO-FAURE. *Ctr. De Neurosci. Cognitive CNRS-UMR 5229, Univ. Lyon 1, CERMEP - Imagerie du vivant.*
- 8:00 D51 **694.09** Regional deficits in neurotransmitter systems in demented Parkinson's disease. C. BUDDHALA*; S. K. LOFTIN; M. C. CAMPBELL; P. T. KOTZBAUER; J. S. PERLMUTTER. *Washington Univ. Sch. of Med.*
- 9:00 D52 **694.10** Transplanting human dopamine neurons derived from ES cells and iPS cells into rat striatum. W. ZHOU; Y. LEE; K. B. BJUGSTAD; M. FERREYROS; C. R. FREED*. *Univ. of Colorado Sch. of Med., Univ. Colorado Sch. of Med., Univ. Colorado Sch. of Med.*
- 10:00 D53 **694.11** An acute pharmacological approach for the study of information transmission through the basal ganglia. K. M. LAMBERT*; J. A. WHITE; A. D. DORVAL. *Univ. of Utah.*
- 11:00 D54 **694.12** Role of glucose transporter1 (Glut-1) in an MPTP- induced mouse model of Parkinson's disease. S. SARKAR*; J. RAYMICK; L. SCHMUEDE; S. CHIGURUPATI; M. G. PAULE. *Natl. Ctr. For Toxicology, Toxicology and Pathology Associates, Natl. Ctr. for Toxicological Res.*
- 8:00 D55 **694.13** Effects of neuronal nitric oxide synthase (nNOS) inhibition on L-DOPA-induced striatal ERK1/2 phosphorylation in the 6-OHDA rat model of Parkinson's disease. F. E. PADOVAN NETO*; E. DEL BEL. *Univ. of São Paulo.*
- 9:00 D56 **694.14** Dopamine toxicity and oxidative stress in zebrafish larvae as a model of Parkinson's disease neuropathology. S. J. STEDNITZ*; S. SHELTON; T. SHEN; D. BLACK; N. LAPOLLA; B. FRESHNER; K. HARTSUYKER; E. GAHTAN. *Humboldt State Univ.*
- 10:00 D57 **694.15** Computational modeling of striatal denervation: Deterioration of dopamine signaling by three mechanisms. J. K. DREYER*. *Univ. of Copenhagen.*
- 11:00 D58 **694.16** Control of the nigrostriatal dopamine neurons, of motor performance and of motor skill learning by the tail of the ventral tegmental area. M. SANCHEZ-CATALAN*; R. BOURDY; J. BALCITA-PEDICINO; J. KAUFLING; M. FREUND-MERCIER; P. VEINANTE; S. SESACK; F. GEORGES; M. BARROT. *INCI-CNRS UPR3212, Univ. de Strasbourg, Univ. of Pittsburgh, Interdisciplinary Inst. for Neuroscience- CNRS UMR 5297, Univ. de Bordeaux.*
- 8:00 D59 **694.17** L-DOPA-induced striatal norepinephrine efflux is associated with dyskinesia in hemi-parkinsonian rats. J. A. GEORGE*; C. Y. OSTOCK; A. A. GOLDENBERG; M. CONTI; C. BISHOP. *Binghamton Univ.*
- 9:00 D60 **694.18** Effect of a chronic treatment with L-DOPA and MPEP, an mGlu5 receptor antagonist, on basal ganglia serotonin markers of de novo parkinsonian monkeys. N. MORIN*; M. MORISSETTE; L. GRÉGOIRE; T. DI PAOLO. *Laval Univ. Med. Ctr. (CHUL).*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 D61 **694.19** Reliability and accuracy of positron emission tomography reference region models of the nigrostriatal dopaminergic system. J. S. PERLMUTTER*; L. TIAN; Y. SU; S. LOFTIN; H. FLORES; S. MOERLEIN. *Washington Univ. Sch. Med.*
- 11:00 D62 **694.20** Increased tyrosine hydroxylase expression by GABAergic neurons in response to chronic dopamine replacement therapy. K. ANDERSON*; A. M. SZLACHETKA; J. L. HUTTER-SAUNDERS; R. MOSLEY. *Univ. of Nebraska Med. Ctr.*
- 8:00 D63 **694.21** Dopamine denervation disrupts CAMKII mediated cytoplasmic Ca²⁺ signaling via a reduction in calmodulin levels. S. ALBARRÁN-BRAVO*; A. AVALOS-FUENTES; S. LOYA-LOPEZ; F. PAZ-BERMUDEZ; H. CORTES-CALLEJA; D. ERLIJ; J. ACEVES; B. FLORÁN GARDUÑO. *Cinvestav, Cinvestav, Inst. Nacional de Rehabilitación, SUNY Downstate Med. Center, State Univ. of New York.*
- 9:00 D64 **694.22** Haloperidol induced-extrapyramidal symptoms are increased in iNOS-knockout mice. F. M. DIAS*; G. H. D. ABREU; T. F. ZANIN; E. A. DEL BEL. *Univ. of Sao Paulo, Univ. of Sao Paulo, Univ. of Sao Paulo, Univ. of Sao Paulo.*
- 10:00 D65 **694.23** Ameliorating effects of toll-like-9 receptor (TLR9) deletion on 6-OHDA-induced dopaminergic denervation and astrocytic response in the striatum of hemiparkinsonian mice. A. C. LICURSI DE ALCANTARA*; M. BORTOLANZA; F. M. TRISTÃO; J. F. C. PEDRAZZI; M. S. PEREIRA; R. RAISMAN-VOZARI; T. M. CUNHA; E. DEL BEL. *Univ. De São Paulo, Univ. De São Paulo, Univ. De São Paulo, Sorbonne Univ., Univ. De São Paulo.*
- 11:00 D66 **694.24** Cannabidiol attenuates sensorimotor gating disruption induced by amphetamine in mice. J. F. PEDRAZZI*; A. C. I. PEREIRA; F. V. GOMES; E. A. DEL BEL; F. S. GUIMARÃES. *Univ. De São Paulo, Univ. De São Paulo, Univ. De São Paulo.*
- 8:00 D67 **694.25** Methylene blue effects in the psychotomimetic-elicited behaviors in mice. A. DE CASTRO ISSY PEREIRA*; J. F. C. PEDRAZZI; S. L. A. CALERO; E. DEL BEL. *Univ. of Sao Paulo, Univ. of Sao Paulo, Univ. Mayor de San Andrés, Univ. of Sao Paulo.*
- 9:00 D68 **694.26** Prepulse inhibition response in rodents with striatal 6-hydroxydopamine lesion. E. DEL BEL*; A. ISSY; F. E. PADOVAN-NETO; M. LAZZARINI; M. BORTOLANZA. *Univ. of Sao Paulo- Ribeirao Preto Dent. Sch., Univ. of Sao Paulo, Max Planck Inst. of Exptl. Med.*
- 9:00 D70 **695.02** Defining the role of chemokines as modulators of pathological neuro-glia-immune interactions during neurodegeneration in Parkinson's disease. R. V. PARILLAUD*; G. LORNET; Y. MONNET; C. COMBADIÈRE; E. C. HIRSCH; S. HUNOT; C. S. LOBSIGER. *INSERM U1127, CNRS U7225, UPMC, Salpêtrière Hosp., VIB Inflammation Res. Ctr., INSERM UMR-S 945, UPMC Paris 6.*
- 10:00 D71 **695.03** Effects of discontinuing a high-fat diet on 6-hydroxydopamine-induced nigrostriatal dopamine depletion in rats. D. MA*; J. M. SHULER; K. D. RAIDER; R. S. ROGERS; J. L. WHEATLEY; P. C. GEIGER; J. A. STANFORD. *Univ. of Kansas Med. Ctr.*
- 11:00 D72 **695.04** Involvement of mitochondrial dysfunction and autophagic alterations in tumor necrosis factor like weak inhibitor of apoptosis (tweak) induced dopaminergic neuronal injury. S. KANURI; H. JIN; V. ANANTHARAM; A. KANTHASAMY*; A. KANTHASAMY. *Iowa State Univ.*
- 8:00 E1 **695.05** Mapping of cellular iron in the *in vitro* model of Parkinson's disease with high-resolution hyperspectral imaging. C. HEO*; E. OH; H. SHIM; K. HAN; H. RYU; J. KIM; M. SUH. *Sung Kyun Kwan Univ., Dept. of Neurology, Seoul Natl. Univ. Bundang Hosp., Sung Kyun Kwan Univ.*
- 9:00 E2 **695.06** Inhibition of HRD1 ligase activity by alpha synuclein. J. R. ZYSK*; T. JOSEPH; A. COLLIER; A. ELLIS. *Lincoln Univ., Lincoln Univ., Lincoln Univ.*
- 10:00 E3 **695.07** Alpha-Synuclein misfolding versus aggregation in Parkinson's disease: Critical assessment and modeling. V. VASQUEZ*; R. BERROCAL; S. RAO KRS; J. RAO. *INDICASAT-AIP.*
- 11:00 E4 **695.08** α -Synuclein activates apoptosis signal regulating kinase 1 in models of Parkinson's disease. E. PARK; K. LEE; J. WOO; J. IM; E. JUNN; M. M. MOURADIAN*. *Rutgers-Robert Wood Johnson Med. Sch.*
- 8:00 E5 **695.09** Cav1.3 L-type calcium channels control age-dependent D2-autoreceptor responses via NCS-1 in Substantia nigra dopamine neurons. E. DRAGICEVIC; C. POETSCHKE; J. DUDA; F. SCHLAUDRAFF; S. LAMMEL; J. SCHIEMANN; M. FAULER; A. HETZEL; M. WATANABE; R. LUJAN; R. C. MALENKA; J. STRIESSNIG; B. LISS*. *Univ. of Ulm, Dept. of Psychiatry and Behavioral Sciences, Stanford Univ. Sch. of Med., Inst. of Neurophysiology, Goethe Univ. Frankfurt, Rosalind Franklin Univ. of Med. and Sci., Dept. of Anatomy, Hokkaido Univ. Sch. of Med., Univ. of Castilla-La Mancha, Dept. of Pharmacol. and Toxicology, Ctr. for Mol. Biosciences, Univ. of Innsbruck.*
- 9:00 E6 **695.10** Environmental toxicant-induced decrease in GM1 ganglioside expression in dopamine neurons: Potential mechanism contributing to development of Parkinson's disease. T. MORRISON*; D. W. ANDERSON; J. CAI; L. IACOVITTI; J. S. SCHNEIDER. *Thomas Jefferson Univ., Thomas Jefferson Univ.*
- 10:00 E7 **695.11** Correlative light and electron microscopy to elucidate the function of genes implicated in Parkinson's disease. F. KLEINE BORGMANN*; A. SKUPIN; M. ELLISMAN. *Univ. of Luxemburg, UCSD.*
- 11:00 E8 **695.12** Early neuronal consequences of rotenone toxicity in *Lymnaea stagnalis* and possible relevance to Parkinson's disease. J. CARRIZALES; H. CANTU; M. E. CANTU GUTIERREZ; D. T. PLAS*. *The Univ. of Texas-Pan American.*

POSTER

695. Mechanisms of Cell Death and Dysfunction

Theme C: Disorders of the Nervous System

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

- 8:00 D69 **695.01** Microglial TNF- α mediates enhancement of dopaminergic degeneration by brain angiotensin. A. BORRAJO; A. I. RODRIGUEZ-PEREZ; C. DIAZ-RUIZ; P. GARRIDO-GIL; J. L. LABANDEIRA-GARCIA; M. J. GUERRA*. *Univ. Santiago De Compostela, Fac. of Med., CIBERNED, CIBERNED.*

- 8:00 E9 **695.13** Enhancement of MPTP-induced dopaminergic neurotoxicity in IL-32 β -overexpressed mice. D. CHOI*; Y. JUNG; J. HONG. *Yengnam Univ., Chungbuk Natl. Univ.*
- 9:00 E10 **695.14** Modeling protein interactions related to Parkinson's disease in silica. A. D. LEE; B. BEHROUZ*. *NeuroInitiative, Inc.*
- 10:00 E11 **695.15** The effects of acute neurotoxicant exposure on parkin expression and proteasome activity in brain regions containing differentially susceptible dopaminergic neurons. T. LANSDELL*; J. L. GOUDREAU; K. J. LOOKINGLAND. *Michigan State Univ., Michigan State Univ., Michigan State Univ.*
- 11:00 E12 **695.16** Involvement of HDAC10 in MPP+-treated neuronal cell death and in brains with Parkinson's disease. Y. NAGANO*; T. KURASHIGE; E. DOHI; T. SHISHIDO; T. TAKAHASHI; H. MARUYAMA; M. MATSUMOTO. *Hiroshima Univ.*
- 8:00 E13 **695.17** Role of E2 ubiquitin conjugating enzymes in parkin-dependent mitochondrial quality control. F. C. FIESEL*; E. L. MOUSSAUD-LAMODIÈRE; M. ANDO; T. CAULFIELD; W. SPRINGER. *Mayo Clin.*
- 9:00 E14 **695.18** Elevated mitochondrial bioenergetics in mouse substantia nigra dopamine neurons as a vulnerability factor in Parkinson's disease. C. PACELLI*; N. GIGUERE; M. BOURQUE; R. SLACK; L. TRUDEAU. *Univ. of Montreal, Univ. of Ottawa.*
- 10:00 E15 **695.19** Activated cathepsin L contributes to apoptotic death of SH-SY5Y cells exposed to 6-hydroxydopamine. L. LI*; L. GAO; L. XIAO; Z. LIANG. *The 2nd Affiliated Hosp. of Soochow Univ., Soochow Univ.*
- 11:00 F1 **695.20** Axonal arborization size as a key factor influencing the selective vulnerability of substantia nigra dopamine neurons in Parkinson's disease. N. GIGUERE*; C. PACELLI; C. SAUMURE; M. BOURQUE; L. TRUDEAU. *Univ. De Montreal.*

POSTER

696. Motor Neuron Disease and Animal Models

Theme C: Disorders of the Nervous System

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

- 8:00 F2 **696.01** A loss-of-function allelic series of the mouse C9ORF72 for studies of amyotrophic lateral sclerosis and frontotemporal dementia. L. P. BOGDANIK*; A. S. AUSTIN; C. R. LAMMERT; W. P. MARTIN; M. OSBORNE; C. LUTZ. *The Jackson Lab.*
- 9:00 F3 **696.02** Oxidative stress in the SOD1 G93A transgenic rat model of ALS: Subcellular details of glial activation and X-ray analysis of metal imbalance. S. STAMENKOVIC*; T. DUCIC; A. KRANZ; D. BATAVELJIC; V. SELAKOVIC; L. RADENOVIC; P. R. ANDJUS. *Fac. of Biology, Univ. of Belgrade, CELLS - ALBA Synchrotron Light Source, Fraunhofer Inst. for Cell Therapy and Immunol., Inst. for physiology and biochemistry, Fac. of Biology, Univ. of Belgrade, Institute for Med. Research, Military Med. Acad.*
- 10:00 F4 **696.03** Tyrosine kinase inhibitors modulate the immune profile in TDP-43 overexpressing mice. L. HEYBURN*; M. HEBRON; S. SELBY; B. HARRIS; C. MOUSSA. *Georgetown Univ., Georgetown Univ.*

- 11:00 F5 **696.04** Fused in sarcoma (FUS) regulates the expression and function of crucial presynaptic terminal proteins at mammalian neuromuscular junction- implications for fus-mediated ALS. K. KRISHNAMURTHY*; A. KIA; K. CHOMA; S. SHAMAMANDRI MARKANDIAH; M. SHAHIDULLAH; I. LEVITAN; D. TROTTI; P. PASINELLI. *Thomas Jefferson University Hospital For Neuroscience.*
- 8:00 F6 **696.05** The ALS gene FUS regulates macrophage activity in *Drosophila*. J. MACHAMER*; G. FULLER; T. LLOYD. *Johns Hopkins.*
- 9:00 F7 **696.06** ALS-linked FUS-positive stress granules are regulated by autophagy. M. JUN; H. RYU; K. MIN; J. LEE*. *Hannam Univ.*
- 10:00 F8 **696.07** A directed genetic screen reveals loss of rad23 as a suppressor of neurodegeneration. A. JABLONSKI*; T. LAMITINA; N. F. LIACHKO; J. LIU; J. MOJSILOVIC-PETROVIC; B. KRAEMER; J. WANG; R. G. KALB. *Univ. of Pennsylvania, Univ. of Washington, Johns Hopkins Univ., Children's Hosp. of Philadelphia.*
- 11:00 F9 **696.08** Expression of iron-related proteins in the g93a-sod1 model of amyotrophic lateral sclerosis. C. MAWRIN*; M. HADZHEVA; E. KIRCHES. *Univ. of Magdeburg.*
- 8:00 F10 **696.09** Voltage-gated calcium channels are abnormal in cultured spinal motoneurons in the G93A-SOD1 transgenic mouse model of ALS. Q. CHANG*; L. J. MARTIN. *Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med.*
- 9:00 F11 **696.10** Electrophysiological properties of medial motoneurons in a mouse model of mild SMA. K. A. QUINLAN*; C. CHRZASTOWSKI; C. J. HECKMAN; C. J. DIDONATO. *Northwestern Univ. Feinberg Sch. of Med., Lurie Children's Hosp. Northwestern Univ.*
- 10:00 F12 **696.11** Targeted ablation of myelinating Schwann cells enhances disease severity in SOD1G93A mice. R. K. SHEEAN*; J. A. STRATTON; T. D. MERSON; B. J. TURNER. *Florey Inst. of Neurosci. and Mental Hlth.*
- 11:00 G1 **696.12** Motor deficits in a novel optineurin mouse for amyotrophic lateral sclerosis. C. MCKEE*; H. BOMZE; T. RHODES; C. MEANS; R. RODRIGUIZ; W. WETSEL; H. TSENG. *Duke Univ., Duke Univ., Duke Univ., Duke Univ.*
- 8:00 G2 **696.13** Novel sensitive kinematic gait analysis reveals early motor impairment in G93A SOD1 mice of amyotrophic lateral sclerosis. J. OKSMAN*; T. HEIKKINEN; T. BRAGGE; T. AHTONIEMI; O. KONTKANEN; A. STEPHAN; R. RUTTER; A. NURMI. *Charles River Discovery Res. Services Ltd, Neural Pathways DPU, Neurosciences TAU, GSK.*
- 9:00 G3 **696.14** Generation and characterization of models for Amyotrophic Lateral Sclerosis in *C. elegans*. S. N. BASKOYLU*; A. C. HART. *Brown Univ.*
- 10:00 G4 **696.15** Effects of tongue force training on bulbar motor function in SOD1-G93A rats. J. A. STANFORD*; D. MA; J. M. SHULER; T. TOMOHIRO; T. SUDHEER; H. NISHIMUNE. *Univ. Kansas Med. Ctr., Univ. of Kansas Med. Ctr.*
- 11:00 G5 **696.16** Interaction of PCBP1 with mutant SOD1 in transgenic ALS pig brains. G. WANG*. *Emory Univ.*
- 8:00 G6 **696.17** Characterization of bacTRAP transgenic mice that label cortical projection neuron populations to study ALS degeneration. E. F. SCHMIDT*; M. V. MOYA; C. E. SFERRAZZA; K. L. MCGUIRE; S. B. PICKETT; N. HEINTZ. *Rockefeller Univ., The Rockefeller Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 G7 **696.18** Automated home-cage assessment in SOD1 mice uncovers early sex-dependent deficits in voluntary wheel running and cognitive timing ability. S. MANDILLO*; L. GARBUGINO; S. MAGGI; I. HEISE; E. GOLINI; G. P. TOCCHINI-VALENTINI; P. M. NOLAN; V. TUCCI. *CNR - Inst. Cell Biol. and Neurobiology-EMMA, IIT-Italian Inst. of Technol., MRC - Med. Res. Council.*
- 10:00 G8 **696.19** Molecular phenotyping of "upper" motor neuron degeneration in the SOD1-G93A mouse model. M. V. MOYA*; C. E. SFERRAZZA; K. L. MCGUIRE; S. B. PICKETT; N. HEINTZ; E. F. SCHMIDT. *The Rockefeller Univ., The Rockefeller Univ.*
- 11:00 G9 **696.20** Loss-of-function of the microtubule binding domain of p150glued is sufficient to trigger spinal motor neuron degeneration. J. YU*; C. LAI; L. SUN; C. XIE; H. SHIM; H. CAI. *Lab. of Neurogenetics, NIA, NIH.*
- 8:00 G10 **696.21** Development and characterization of mutant human profilin1 transgenic mice as new model for ALS. S. YADAV*; M. KIAEI. *Univ. of Arkansas For Med. Sci.*
- 9:00 G11 **696.22** Synaptic boutons and dendritic vacuolization in adult motoneurons of mSOD1 mouse model of ALS. N. DELESTRÉE; C. MARTINOT; M. MANUEL; D. ZYTNICKI*. *Univ. Paris Descartes, Ctr. For Neurophysics, Physiol. and Pathology.*
- POSTER**
- 697. Other Neurodegenerative Disorders I**
- Theme C: Disorders of the Nervous System**
- Wed. 8:00 AM – *Walter E. Washington Convention Center, Halls A-C*
- 8:00 G12 **697.01** Modelling aggregation. T. M. JEITNER*. *New York Med. Col.*
- 9:00 H1 **697.02** ● Autophagy contributes to Lewy body formation in a human cell model of Parkinson's disease. P. A. TRIMMER*; E. CRONIN-FURMAN; K. BERGQUIST. *Virginia Commonwealth Univ., Univ. of Virginia, Virginia Commonwealth Univ.*
- 10:00 H2 **697.03** Differentiation of human neural stem cells to a motor neuron phenotype stimulates mitochondrial biogenesis. L. O'BRIEN*; J. P. BENNETT, Jr. *Virginia Commonwealth Univ., VCU Parkinson's and Movement Disorders Ctr.*
- 11:00 H3 **697.04** Effects of a microneurotrophin on gene expression in an *in vitro* human motor neuron model. D. G. BROHAWN*; L. O' BRIEN; A. GRAVANIS; J. BENNETT, JR. *Virginia Commonwealth Univ., Univ. of Crete.*
- 8:00 H4 **697.05** Mitochondrial oxidative phosphorylation transcriptome alterations in human amyotrophic lateral sclerosis spinal cord and blood. A. C. LADD*; P. M. KEENEY; J. P. BENNETT. *Virginia Commonwealth Univ.*
- 9:00 H5 **697.06** Selective autophagy of lysosomes with ceroid-lipofuscin in neurons deficient in cathepsin D. T. NANAIO; M. KOIKE; J. YAMAGUCHI; C. WHITEHOUSE; T. ISHII; M. SHIBATA; Y. UCHIYAMA*. *Juntendo Univ. Grad Sch. of Med., Juntendo Univ. Grad Sch. of Med., King's Coll, Univ. of Tsukuba, Niigata Univ. Sch. Med. & Dent. Sci.*
- 10:00 H6 **697.07** Cdk5/p25 - a novel target for prion disease. M. AHN*; A. OEHLER; S. DEARMOND. *UCSF.*
- 11:00 H7 **697.08** Pathological roles of VEGF/SphK pathway in Niemann-Pick Type C neurons. H. JIN*; H. LEE; J. LEE; M. PARK; J. BAE. *Kyungpook NatlUniv, Sch. of Medicine, Kyungpook Natl. Univ., BK21 Plus KNU Biomed. Convergence Program, Kyungpook Natl. Univ.*
- 8:00 H8 **697.09** Impaired axon-glia interactions cause axonal degeneration and cell death of neurons in the cerebellum of Caspr-deficient shuffling mice with progressive neurological phenotypes in aging. Y. TAKAGISHI*; H. OOHORI; H. MIZOGUCHI. *Nagoya Univ.*
- 9:00 H9 **697.10** Region-specific alterations of matrix metalloproteinase activity in multiple system atrophy. F. BASSIL*; A. MONVOISIN; M. CANRON; A. VITAL; W. MEISSNER; F. TISON; P. FERNAGUT. *Inst. des Maladies Neurodégénératives, Inst. de Physiologie et Biologie Cellulaire, Service d'Anatomie Pathologique, CHU de Bordeaux, Ctr. de référence atrophie multisystématisée, CHU de Bordeaux, Service de Neurologie, CHU de Bordeaux.*
- 10:00 H10 **697.11** ● Characterization of the insulin/IGF-1 signaling pathway in multiple system atrophy. M. CANRON; F. BASSIL; A. VITAL; E. BEZARD; P. FERNAGUT; W. MEISSNER*. *Inst. of Neurodegenerative Dis., Service d'Anatomie Pathologique, CHU de Bordeaux, Service de Neurologie, CHU de Bordeaux, Ctr. de référence atrophie multisystématisée, CHU de Bordeaux.*
- 11:00 H11 **697.12** Dystrophin deficient-mice present increased concentrations of gamma-aminobutyric acid (GABA) and excitatory amino acids in the cerebellum. M. I. B. FRANGIOTTI*; J. D. P. DA SILVA; E. F. DE CASTRO NETO; P. V. V. SOUSA; M. G. NAFFAH-MAZZACORATTI; C. SOUCCAR. *Escola Paulista de Medicina/UNIFESP, Escola Paulista de Medicina/UNIFESP, Escola Paulista de Medicina/UNIFESP.*
- 8:00 H12 **697.13** ● Longitudinal assessment of oculomotor metrics in patients with progressive supranuclear palsy (PSP). H. W. HEUER*; L. VOLTARELLI; B. YANG; A. L. BOXER. *Univ. California San Francisco.*
- 9:00 I1 **697.14** [3H]-GABA release evoked by nicotinic stimulation is reduced in cerebellar synaptosomes of dystrophic (mdx) mice. J. D. DA SILVA*; M. I. B. FRANGIOTTI; F. M. NOGUEIRA; R. S. STILHANO; R. M. DA SILVA; G. M. KO; S. W. HAN; C. SOUCCAR. *Escola Paulista de Medicina/UNIFESP, Escola Paulista de Medicina/UNIFESP, Escola Paulista de Medicina/UNIFESP.*
- 10:00 I2 **697.15** Paroxysmal non-kinesogenic dyskinesia in dogs associated with a mutation in the glycosylphosphatidylinositol (GPI) anchor synthesis enzyme PIGN responds to acetazolamide therapy. D. P. O'BRIEN*; R. A. PACKER; S. A. THOMOVSKY; A. L. KOLICHESKI; G. S. JOHNSON. *Univ. Missouri, Colorado State Univ., Washington State Univ., Univ. Missouri.*
- 11:00 I3 **697.16** Higher specific infectivity of exosomal prions. F. PROPERZI*; M. LOGOZZI; H. ABDEL HAQ; E. FERRONI; C. FEDERICI; L. LUGINI; T. AZZARITO. *Inst. Superiore Della Sanità.*
- 8:00 I4 **697.17** ALS-related functional connectivity changes in the frontal and temporal lobe. K. LOEWE; J. MACHTS; C. STOPPEL; S. ABDULLA; K. KOLLEWE; S. PETRI; R. DENGLER; H. HEINZE; J. HOPF; S. VIELHABER; M. A. SCHOENFELD*. *Univ. of Magdeburg, Univ. of Magdeburg, German Ctr. for Neurodegenerative Dis., Charité - Universitätsmedizin, Hannover Med. Sch., Leibniz Institute for Neurobio., Kliniken Schmieder.*

- 9:00 I5 **697.18** ● Characterization of essential tremor by kinematic assessments in the upper limb. O. SAMOTUS; F. RAHIMI; J. LEE; M. JACKMAN; M. S. JOG*. *London Hlth. Sci. Ctr., Univ. of Western, Univ. of Western Ontario.*
- 10:00 I6 **697.19** ▲ Movement disorders after stroke. A. CHAHIDI*; M. CHRAA; N. KISSANI; M. CHRAA; N. KISSANI. *Sorbonne Univ., Basic & Clin. Neurosciences Res. Laboratory, UCAM, Mohamed VI Univ. hospital.*
- 11:00 I7 **697.20** Hypoplasia of the human medial superior olive in chromosome 15q duplication syndrome. R. J. KULESZA*; JR; R. LUKOSE. *Lake Erie Col. of Osteo. Med., Hamot Univ. of Pittsburgh Med. Ctr.*

POSTER

698. Physiology and Pathophysiology of Hormones

Theme C: Disorders of the Nervous System

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

- 8:00 I8 **698.01** Neuroserms as mitochondrial regulators: Reversal of ovariectomy-induced bioenergetic dysregulation. Z. MAO*; J. YAO; L. ZHAO; K. WONG; Y. WANG; C. CALDWELL; R. BRINTON. *USC, Univ. of Kansas.*
- 9:00 I9 **698.02** Allopregnanolone potentiates brain mitochondrial function. J. YAO*; S. CHEN; K. C. WONG; R. D. BRINTON. *Univ. of Southern California, USC.*
- 10:00 I10 **698.03** Mechanistic pathways linking mitochondrial hydrogen peroxide production and white matter degeneration in the aging mammalian female brain. L. KLOSINSKI*; J. YAO; S. CHEN; Z. MAO; E. TRUSHINA; S. K. TIWARI-WOODRUFF; L. ZHAO; R. D. BRINTON. *USC, Mayo Clin., Univ. of California Riverside, Univ. of Kansas.*
- 11:00 I11 **698.04** Impact of perimenopausal transition on plasma and cortical steroids levels in a female rat model of human perimenopause. E. CADENAS*; F. YIN; R. C. MELCANGI; D. CARUSO; A. CHRISTENSEN; C. J. PIKE; R. D. BRINTON. *USC, Univ. of Milan, USC, USC.*
- 8:00 I12 **698.05** Hormone therapy in early but not late middle-age reduces microglial activation in female 3xTg-AD mice. A. CHRISTENSEN*; C. J. PIKE. *USC.*
- 9:00 J1 **698.06** ● Early stage development for metabolic profiling of iPSC-derived neural cells from familial and late-onset Alzheimer's disease cohorts. C. M. SOLINSKY*; J. YAO; J. K. ICHIDA; R. D. BRINTON. *USC, USC, USC, USC.*
- 10:00 J2 **698.07** Development of biomarker profiles for early detection of women with an at-Alzheimer's disease risk phenotype. J. R. RETTBERG*; H. DANG; H. HODIS; R. D. BRINTON; W. MACK. *Univ. of Southern California, USC, USC, USC.*
- 11:00 J3 **698.08** Screening for Alzheimer's: Identifying at-risk individuals by applying predictive analytics to plasma measures. B. C. RIEDEL*; S. K. MADSEN; W. J. MACK; P. M. THOMPSON; R. D. BRINTON. *USC, USC.*
- 8:00 J4 **698.09** ● Allopregnanolone preclinical therapeutic development in relevant aging and Alzheimer's disease models. R. W. IRWIN*; C. M. SOLINSKY; C. M. LOYA; K. E. RODGERS; G. BAUER; M. ROGAWSKI; R. D. BRINTON. *Univ. of Southern California, USC, Sage Therapeut., Univ. of California, Davis.*
- 9:00 J5 **698.10** Transcriptional response of estrogen receptors to estrogen across the peri-menopause transition in rat cortical astrocytes. E. BACON*; E. A. HERNANDEZ; F. YIN; R. D. BRINTON; T. E. MORGAN; C. E. FINCH. *USC.*
- 10:00 J6 **698.11** Impact of perimenopausal transition on bioenergetic and synaptic function in hippocampus of female rat model of human perimenopause. F. YIN*; J. YAO; Z. MAO; T. MORGAN; E. HERNANDEZ; H. SANCHETI; H. CHENG; C. E. FINCH; W. MACK; E. CADENAS; R. D. BRINTON. *USC, USC, USC.*
- 11:00 J7 **698.12** Allopregnanolone promotes neural stem cell differentiation to neurons. S. CHEN*; J. YAO; K. WONG; R. D. BRINTON. *USC.*
- 8:00 J8 **698.13** Female rat model of human perimenopause documents reductions of key neurosteroids in cortex. E. A. HERNANDEZ; F. YIN; D. CARUSO; R. C. MELCANGI; C. PIKE; E. CADENAS; R. D. BRINTON; C. E. FINCH; T. E. MORGAN*. *USC, Univ. of Milan, USC.*
- 9:00 J9 **698.14** A characterization of proctolin's function as a hormone, a co-transmitter and a putative behavioural role in *Drosophila melanogaster*. K. G. ORMEROD*; G. J. TATTERSALL; A. J. MERCIER. *Brock Univ.*
- 10:00 J10 **698.15** Effect of insulin-like growth factor-1 on thioredoxin and glutaredoxin systems in growth hormone receptor knockout mice. L. ROJANATHAMMANEE*; S. RAKOCZY; H. M. BROWN-BORG. *Suranaree Univ. of Technol., Univ. of North Dakota.*
- 11:00 J11 **698.16** ▲ Effects of phytoestrogen treatment on the gabaergic system in the retina of ovariectomized mice. E. VIOLARI; E. N. YAMASAKI*. *Univ. of Nicosia.*
- 8:00 J12 **698.17** Evaluation of serotonin and noradrenalin contents in the amygdala and hippocampus in an animal model of perimenopause. N. PESTANA*; C. M. LEITE; R. O. CAROLINO; J. A. ANSELMO-FRANCI. *Univ. de São Paulo-Faculdade de Medicina de Ribeirão Preto/FMRP, Faculdade de Odontologia de Ribeirão Preto.*
- 9:00 K1 **698.18** The implication of melatonin in the improvement of neuronal mitochondria function. A. J. IDOWU*; I. I. OLATUNJI-BELLO; Y. BAI. *Lagos State Univ. Col. of Med., Univ. of Texas Hlth. Sci. Ctr.*
- 10:00 K2 **698.19** Somatostatin is hypermethylated in the aged human prefrontal cortex. B. C. MCKINNEY*; C. LIN; H. OH; D. LEWIS; G. TSENG; E. SIBILLE. *Univ. of Pittsburgh.*
- 11:00 K3 **698.20** Hippocampal epigenome and aging: Sex and age regulation of DNA methylation. W. M. FREEMAN*; C. MANGOLD; D. STANFORD; B. WRONOWSKI; D. MASSER. *Oklahoma Univ. Hlth. Sci. Ctr., Penn State Univ., Univ. of Oklahoma Hlth. Sci. Ctr.*
- 8:00 K4 **698.21** A highfat/highfructose diet induced oxidative damage in the frontal cortex and impaired the redox signaling response under an acute restraint stress. M. OSMAN; C. BATANDIER; N. A. CRIVELLO*; T. POYOT; K. COUTURIER; F. CANINI; I. HININGER-FAVIER. *Natl. Inst. for Health, Joseph Fourier Univ., JM USDA Human Nutr. Res. Ctr. On Aging At Tufts Univ., Army Inst. for Res. in Biol.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

699. Fragile X Syndrome

Theme C: Disorders of the Nervous System

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

- 8:00 K5 **699.01** Potential role of novel 5-HT₇ receptor agonists as pharmacological tools in Fragile X Syndrome. L. CIRANNA*; L. COSTA; L. M. SARDONE; M. SPATUZZA; S. D'ANTONI; C. M. BONACCORSO; D. PUZZO; M. LEOPOLDO; E. LACIVITA; M. V. CATANIA. *Univ. of Catania, Univ. of Messina, Natl. Res. Council (CNR), IRCCS Oasi Maria Santissima, Univ. of Bari.*
- 9:00 K6 **699.02** Altered tonic inhibition in the dentate gyrus in a mouse model of fragile X syndrome. C. R. HOUSER; X. TONG; Y. CETINA; C. S. HUANG; T. S. OTIS; Z. PENG*. *David Geffen Sch. of Med. at UCLA.*
- 10:00 K7 **699.03** In mature FMR1 ko mice, dhpG-induced ltd is disrupted by synaptically-activated NMDA receptors. A. K. TOFT*; N. N. UMAR; T. G. BANKE. *Aarhus Univ.*
- 11:00 K8 **699.04** Regulation of protein synthesis by Bcl-xL and FMRP. P. LICZNERSKI*; R. J. LEVY; E. A. JONAS. *Yale Univ. Sch. of Med., Children's Natl. Med. Ctr.*
- 8:00 K9 **699.05** Defects of glial cell differentiation in the absence of fragile X mental retardation protein. M. L. CASTRÉN*; H. MONONEN; V. ACHUTA. *Univ. of Helsinki.*
- 9:00 L1 **699.06** Disrupted resting state and sensory evoked activity during a critical developmental period in FMR1 mutant rats. J. BERZHANSKAYA*; A. S. GORIN; M. A. PHILLIPS; M. T. COLONNESE. *George Washington Univ., George Washington Univ.*
- 10:00 L2 **699.07** Abnormal development of network dynamics of *in vitro* Fragile X Circuits. H. MOTANIS*; D. BUONOMANO. *UCLA.*
- 11:00 L3 **699.08** Insulin misregulation underlies circadian and cognitive deficits in a *Drosophila* Fragile X Model. S. M. MCBRIDE*; R. MONYAK; D. EMERSON; B. SCHOENFELD; X. ZHENG; D. CHAMBERS; P. HINCHEY; C. CHOI; T. MCDONALD; F. BOLDUC; A. SEHGAL; T. JONGENS. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Alberta, Albert Einstein Col. of Med., Drexel Col. of Med., Univ. of Pennsylvania.*
- 8:00 L4 **699.09** Aberrant cofilin signaling in a mouse model of Fragile X Syndrome. A. PYRONNEAU*; R. ZUKIN. *Albert Einstein Col. of Med.*
- 9:00 L5 **699.10** Impaired olfactory discrimination learning in Fragile X knockout mice. S. A. KEIL; J. R. LARSON*. *Univ. Illinois Chicago, Univ. Illinois Chicago.*
- 10:00 L6 **699.11** Sleep duration in Fmr1 knockout mice. M. LEVINE; R. REITH; C. B. SMITH*. *NIH, NIMH-SNPM.*
- 11:00 L7 **699.12** VEGF inhibition alleviates abnormalities in a mouse model of the fragile X mental retardation syndrome. A. BELAGODU*; R. GALVEZ. *Univ. of Illinois Urbana-Champaign.*
- 8:00 L8 **699.13** Corpus callosum abnormalities in a mouse model of fragile X syndrome. T. KOBIL-MOAV*; C. SMITH-HICKS; J. ZHANG; G. PELLE. *Johns Hopkins Sch. of Med., Kennedy Krieger Inst., Johns Hopkins University, school of medicine.*

- 9:00 L9 **699.14** NMDA receptor hypofunction and dendritic atrophy in the dentate granular cells of Fragile X mice. S. YAU; J. CHIU; C. CHIU; M. GHILAN; C. BOSTROM; B. R. CHRISTIE*. *Univ. of Victoria.*
- 10:00 L10 **699.15** Fmr1 knockout rats exhibit abnormal development of episodic memory but normal spatial memory in adulthood. A. ASIMINAS; S. M. TILL; A. W. A. BURT; E. R. COX; R. G. M. MORRIS; S. CHATTARJI; D. J. WYLLIE*; P. C. KIND; E. R. WOOD. *Univ. of Edinburgh, Univ. of Edinburgh, Natl. Ctr. for Biol. Sci.*
- 11:00 L11 **699.16** Neural precursor cells are arrested in a quiescent state in the Fragile X mouse model. M. SOURIAL*; E. L. TAYLOR; K. PATEL; L. C. DOERING. *McMaster Univ.*
- 8:00 L12 **699.17** Antiepileptic action of memantine in Fragile X Syndrome: Specific antagonism of NR2b-group I mGluR cross-talk. W. ZHAO; R. K. WONG*. *SUNY Downstate Med. Ctr.*
- 9:00 M1 **699.18** BONLAC: A new profiling approach to decode the ASD proteome. H. L. BOWLING*; A. BHATTACHARYA; G. ZHANG; P. SMITH; K. KIRSHENBAUM; M. V. CHAO; T. A. NEUBERT; C. VOGEL; E. KLANN. *New York Univ., New York Univ., Skirball Inst. of Biomolecular Medicine, NYU Sch. of Med., New York Univ., New York Univ., Skirball Inst. of Biomolecular Med., New York Univ., New York Univ.*
- 10:00 M2 **699.19** ● Acamprosate treatment in a Fragile X Syndrome mouse model. T. L. SCHAEFER*; A. A. ASHWORTH; M. H. DAVENPORT; A. LANG; K. CAMPBELL; G. MOLINARO; K. M. HUBER; C. A. ERICKSON. *Cincinnati Children's Hosp. Med. Ctr., Cincinnati Children's Hosp. Med. Ctr., UT Southwestern Med. Ctr.*
- 11:00 M3 **699.20** Inducible mouse model of the Fragile X premutation and Fragile-X-associated tremor/ataxia syndrome (fxtas). J. ' KEITER*; E. T. DOISY; R. WILLEMSSEN; S. C. NOCTOR; R. F. BERMAN. *UC Davis, Erasmus MC.*
- 8:00 M4 **699.21** ● A novel GABA_A receptor positive allosteric modulator preferentially enhances extrasynaptic GABA_A receptors and rescues deficient tonic GABAergic currents in a mouse model of Fragile-X Syndrome. B. S. MARTIN*; J. CORBIN; M. M. HUNTSMAN; G. MARTINEZ-BOTELLA; C. M. LOYA; F. G. SALITURO; A. J. ROBICHAUD; J. J. DOHERTY; M. A. ACKLEY. *Children's Natl. Med. Ctr., Univ. of Colorado, SAGE Therapeut.*
- 9:00 M5 **699.22** Mechanisms of cortical inhibitory plasticity in Fragile X Syndrome. C. A. CEA-DEL RIO*; M. M. HUNTSMAN. *Univ. of Colorado, Anschutz Med. Campus, Univ. of Colorado, Anschutz Med. Campus.*
- 10:00 M6 **699.23** Rescue of synaptic and spine phenotypes in fragile X mice with astrocyte-secreted thrombospondin-1. C. CHENG*; B. MISTRY; L. C. DOERING. *McMaster Univ.*

POSTER

700. Attention Deficit Hyperactivity Disorder

Theme C: Disorders of the Nervous System

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

- 8:00 M7 **700.01** Abnormal dlpc activity in adult ADHD patients: A tms-ecg study. U. ALYAGON; A. LAZAROVITS; D. COHEN; H. SHAHAR; A. ZANGEN*. *Ben-Gurion Univ.*

- 9:00 M8 **700.02** Commonalities in prefrontal cortical gene expression profiles between adolescent SHR and Wistar rats which showed "impulsive-like" behavior. I. I. DELA PEÑA*; I. DELA PENA; J. DELA PENA; D. HAN; B. KIM; M. NOH; C. SHIN; J. CHEONG. *Uimyoung Res. Inst. For Neuroscience, Sahmyook Univ., Chung Ang Univ. Hosp., Seoul Natl. Univ. Hosp., Seoul Natl. Univ., Konkuk Univ.*
- 10:00 M9 **700.03** Longitudinal development of functional brain networks in ADHD. B. D. MILLS*; L. JOHANSEN; O. MIRANDA-DOMINGUEZ; E. EARL; B. NAGEL; J. NIGG; D. FAIR. *Oregon Hlth. & Sci. Univ., Univ. of Copenhagen.*
- 11:00 M10 **700.04** Brain lateralization of ERP N400 in children with ADHD and their sibs and first cousins. E. CASTRO-SIERRA*; E. BARRAGÁN-PÉREZ; H. FLORES-ORDÓÑEZ; L. FLORES-VALADEZ; S. MARTÍNEZ-RODRÍGUEZ. *Hosp. Infantil de Mexico FG, Hosp. Infantil de Mexico FG, Hosp. Infantil de Mexico FG.*
- 8:00 M11 **700.05** Differences in white matter microstructure associated with impulsivity in bipolar and attention-deficit/hyperactivity disorders. J. B. KING*; D. YURGELUN-TODD; J. DIMUZIO; A. STOECKEL; M. P. LOPEZ-LARSON. *Univ. of Utah, Univ. of Utah, Univ. of Utah.*
- 9:00 M12 **700.06** Hyperactivity, gait deficits, and orolingual motor function in the Gunn rat model of neonatal jaundice. K. STANFORD*; J. M. SHULER; S. C. FOWLER; S. M. SHAPIRO; J. A. STANFORD. *Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr., Univ. of Kansas, Children's Mercy Hosp.*
- 10:00 N1 **700.07** Modeling differences in probabilistic learning among children with and without ADHD. Z. SHAPIRO*; A. WEIGARD; C. HUANG-POLLOCK. *Pennsylvania State Univ., Pennsylvania State Univ.*
- 11:00 N2 **700.08** Comparison between physical training and physical training associated with omega-3 in the attention and executive functions in ADHD children: A Preliminary Study. V. GRASSMANN*; M. V. C. ALVES; R. F. SANTOS-GALDURÓZ; J. F. GALDURÓZ. *Univ. Federal De São Paulo- Escola Paulista De Medicina, Univ. Federal do ABC, Univ. Estadual Paulista.*
- 8:00 N3 **700.09** • Dissociation of working memory and attention-deficit/hyperactivity disorder in the brain. A. MATTFELD*; S. WHITFIELD-GABRIELI; J. BIEDERMAN; T. SPENCER; A. BROWN; J. D. E. GABRIELI. *MIT, Massachusetts Gen. Hosp.*
- 9:00 N4 **700.10** • Psychostimulant treatment duration correlates with increased brain iron levels in attention-deficit/hyperactivity disorder. V. ADISETIYO*; J. H. JENSEN; A. TABESH; R. L. DEARDORFF; K. M. GRAY; J. A. HELPERN. *Med. Univ. of South Carolina, Med. Univ. of South Carolina, Med. Univ. of South Carolina.*
- 10:00 N5 **700.11** fMRI-based neurofeedback from anterior cingulate cortex for adults with attention-deficit/hyperactivity disorder. A proof of concept study. A. ZILVERSTAND*; B. SORGER; R. GOEBEL; J. BUITELAAR. *Maastricht Univ., Netherlands Inst. for Neurosci. (KNAW), Donders Inst. for Brain, Cognition and Behavior, Radboud Univ. Med. Ctr.*
- 11:00 N6 **700.12** Effect of methylphenidate on inhibitory control depends upon DAT1 genotype and baseline executive functioning in childhood ADHD. A. PEARCE*; L. KENEALY; W. GAILLARD; M. STEIN; E. COOK; C. VAIDYA. *Georgetown Univ., Children's Natl. Med. Ctr., Univ. of Illinois at Chicago.*

- 8:00 N7 **700.13** Genetic-driven partial reduction of the dopamine transporter (DAT) in mice produces ADHD but not schizophrenia-relevant behavioral phenotypes. M. MEREU*; G. CONTARINI; R. BRUNORO; F. PAPALEO. *IRCCS E.Medea / Univ. of Padova, Univ. of Padova, Inst. Italiano di Tecnologia (IIT).*

POSTER

701. Ischemia: Cellular Mechanisms and Neuroprotection IV

Theme C: Disorders of the Nervous System

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

- 8:00 N8 **701.01** Neuroprotection by neuregulin-1 after ischemia by activating ErbB4 in parvalbumin-positive interneurons. Y. CHEN*; Q. ZHANG; D. BRANN; L. MEI. *Georgia Regents Univ., Georgia Regents Univ.*
- 9:00 N9 **701.02** Cerebral venous potassium efflux during spreading depression. J. L. SEIDEL*; F. BLASI; D. VON BORNSTADT; C. AYATA. *Massachusetts Gen. Hospital, Harvard Med. Sch., Charité-Universitätsmedizin, Massachusetts Gen. Hosp.*
- 10:00 N10 **701.03** Spreading depression of cortical activity: Lamina specificity and role of adenosine receptors. B. E. LINDQUIST*; C. W. SHUTTLEWORTH. *Univ. of New Mexico Sch. of Med.*
- 11:00 N11 **701.04** Bacterial Infection mimic exacerbates blood-brain barrier permeability in experimental stroke via compromising mitochondrial function of brain vascular endothelial cells. X. REN*; D. N. DOLL; H. HU; S. N. SARKAR; D. D. QUINTANA; J. W. SIMPKINS. *West Virginia University Robert C. Byrd Health Sci. Ctr.*
- 8:00 N12 **701.05** Dynamic blood-brain barrier openings concur with increasing of miR-let7a in murine experimental stroke. H. HU*; X. REN; S. JUN; S. N. SARKAR; D. N. DOLL; J. W. SIMPKINS. *West Virginia University, Ctr. For Basic and Translational Stroke Res.*
- 9:00 O1 **701.06** Vascular production of colony stimulating factor 1 (CSF1) modulates post-stroke neurogenesis. A. J. BRUMM*; M. MACHNICKI; G. COPPOLA; S. T. CARMICHAEL. *UCLA.*
- 10:00 O2 **701.07** Cell-based immunotherapy for intracranial hemorrhage. H. DOU*; X. WANG; J. RODRIGUEZ; T. THOMAS; L. DO; L. ZOU. *Texas Tech. Univ. Hlth. Sci. Ctr. (TTUHSC), Weifang medical Univ.*
- 11:00 O3 **701.08** Role of proteolytic isoforms of BDNF in stroke-induced depression-like symptoms and myelin changes in the corpus callosum. T. L. BRIONES*; J. WOODS; M. WADOWSKA. *Wayne State Univ., Univ. of Illinois at Chicago.*
- 8:00 O4 **701.09** Immediate changes in neuronal activity induced by stroke in cat visual cortex. W. J. WALESZCZYK*; P. URBAN; A. FOIK; J. JABIONKA; P. MALINOWSKI; E. KUBLIK; R. KUŚ; M. KAMIŃSKI; J. ŻYGIEREWICZ. *The Nencki Inst., Inst. of Exptl. Physics, Fac. of Physics, Univ. of Warsaw.*
- 9:00 O5 **701.10** The immune response after hypoxia-ischemia in a mouse model of preterm brain injury. X. WANG*; A. ALBERTSSON; D. BI; X. ZHANG; J. LEAVENWORTH; S. CARDELL; H. CANTOR; H. HAGBERG; C. MALLARD. *PMC, Inst. of Neurosci. and Physiology, Univ. of Gothenburg, Univ. of Gothenburg, Dana-Farber Cancer Inst.*

* Indicated a real or perceived conflict of interest, see page 153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 O6 **701.11** Effects of oxygen glucose deprivation on polarization of rat microglia in primary culture. R. BARAKAT; S. HASAN*; Z. REDZIC. *Kuwait Univ., Kuwait Univ.*
- 11:00 O7 **701.12** Post-stroke administration of melatonin improves long-term outcome after focal ischemia/reperfusion (FIR) via interleukin-4 (IL-4) dependent M2 microglial polarization. J. SUENAGA; X. HU; L. MAO; J. CHEN*. *Ctr. of Cerebrovascular Dis. Research, Univ. of Pittsburgh Sch. of Med., Univ. Pittsburgh Sch. Med.*
- 8:00 O8 **701.13** Induced-pluripotent stem cell transplantation alleviates anxiety-like behavior in a focal ischemic stroke model of mice. T. C. DEVEAU*; M. CHAU; K. YUENGLING; S. P. YU; L. WEI. *Emory Univ.*

POSTER

702. Ischemia: Pathophysiology, Biomarkers, and Treatment

Theme C: Disorders of the Nervous System

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

- 8:00 O9 **702.01** The effects of focal prefrontal ischemic lesions on attentional set-shifting and cost-benefit decision making in the rat. R. A. DÉZIEL*; R. A. TASKER. *Univ. of Prince Edward Island.*
- 9:00 O10 **702.02** Examinations of explicit and implicit memory for an animal model of stroke hemorrhage. B. H. HE*; A. C. W. HUANG; B. SHYU. *Fo Guang Univ., Inst. of Biomed. Sciences, Academia Sinica.*
- 10:00 O11 **702.03** Application of low-frequency intracortical electrical stimulation to minimize neuronal hyperexcitability in a rat model of ischemic stroke - Preliminary findings. R. NIELSEN; W. JENSEN*. *Aalborg Univ., Aalborg Univ.*
- 11:00 O12 **702.04** Reorganization of cerebral activity patterns during ambulation following cerebral infarction assessed with 18F-FDG PET imaging. J. SOUCY*; C. PAQUETTE. *Montreal Neurolog. Inst., McGill Univ., Ctr. for Interdisciplinary Res. in Rehabil. of Greater Montreal.*
- 8:00 P1 **702.05** Secondary atrophy of spared left hemisphere structures in chronic post-stroke aphasia and its relationship with language deficits. S. XING*; E. H. LACEY; X. JIANG; L. M. SKIPPER; M. E. FAMA; P. E. TURKELTAUB. *Georgetown Univ. Med. Ctr., First Affiliated Hospital, Sun Yat-Sen Univ., MedStar Natl. Rehabil. Hosp., Georgetown Univ. Med. Ctr.*
- 9:00 P2 **702.06** Circulating immune modulators correlate with Vitamin D concentrations after HI injury in the neonatal rat. D. LOWE; L. ROLLINGS; J. FRASER; J. BENTZLEY; X. NIE; B. HOLLIS; I. SINGH*; D. JENKINS. *Med. Univ. South Carolina, University of Massachusetts, Natl. Med. Ctr.*
- 10:00 P3 **702.07** An aberrant increase of brain-state alternation after experimental stroke. J. W. HE*; Y. NISHIJIMA; Y. AKAMATSU; J. LIU. *Dept. of Neurolog. Surgery, UCSF and SFVAMC.*
- 11:00 P4 **702.08** Dendrimer nanotherapies for the treatment of brain injury following hypothermic circulatory arrest in a large animal model. M. K. MISHRA*; C. A. BEATY; W. G. LESNIAK; S. P. KAMBHAMPATI; F. ZHANG; M. A. WILSON; M. E. BLUE; S. KANNAN; M. V. JOHNSTON; W. A. BAUMGARTNER; K. M. RANGARAMANUJAM. *Johns Hopkins Med. Sch., The Johns Hopkins Med. Institutions, The Johns Hopkins Med. Institutions, The Johns Hopkins Med. Institutions, The Johns Hopkins Med. Institutions.*
- 8:00 P5 **702.09** Optogenetic mapping after focal somatosensory cortex stroke reveals network-wide plasticity and regionally-scaled recovery of functional connectivity. D. H. LIM*; J. LEDUE; M. H. MOHAJERANI; T. H. MURPHY. *Univ. of British Columbia, Univ. of Lethbridge.*
- 9:00 P6 **702.10** High altitude exposure and psychological stressors in post-traumatic stress disorders. N. P. CRAMER*; X. XU; A. BIERMAN; C. TANKERSLEY; Z. GALDZICKI. *Uniformed Services Univ. of the Hlth. Sci., Johns Hopkins Univ.*
- 10:00 P7 **702.11** Ipsilesional corticospinal tract damage assessed with diffusion imaging predicts sensorimotor recovery. A. JAILLARD*; F. RENARD; O. DETANTE; T. ZEFFIRO; F. ISIS HERMES GROUP. *Univ. Hosp. Grenoble, Univ. Hosp., Univ. Hosp. of Grenoble, Univ. Hosp. Grenoble, Univ. Hosp., Neurometrika, Univ. Hosp.*
- 11:00 P8 **702.12** Exosomes derived from curcumin-primed stem cells as novel therapeutic vehicles in diabetic stroke. A. KALANI*; P. K. KAMAT; S. C. TYAGI; N. TYAGI. *Univ. of Louisville, Univ. of Louisville.*
- 8:00 P9 **702.13** Development of a mouse model of diffuse microinfarction and automated assessment tools for monitoring recovery. G. SILASI*; F. BOLANOS; J. SHE; J. BOYD; J. LEDUE; M. VANNI; S. H. SCOTT; T. H. MURPHY. *Univ. of British Columbia, Queens Univ.*
- 9:00 P10 **702.14** Sox11 is a novel inhibitor of caspase-6 activity. E. A. WALDRON*; J. HOEURAUF; N. ARBEZ; S. ZHU; F. NUCIFORA; K. KULSCAR; C. A. ROSS. *Johns Hopkins Univ., Johns Hopkins Univ., Johns Hopkins Univ.*
- 10:00 P11 **702.15** Sp1 mediates ethanol-induced KLF11 gene expression. S. L. SWILLEY*; S. JOHNSON; J. DUNCAN; P. R. ALBERT; J. LOU; D. B. SITTMAN; X. OU; C. A. STOCKMEIER; J. WANG. *Univ. MS Med. Ctr., Univ. of Ottawa, Univ. of Kentucky Col. of Med., Univ. MS Med. Ctr., Univ. MS Med. Ctr.*
- 11:00 P12 **702.16** Regulation of System xc- by TGF- β 1. R. ALBANO*; X. LIU; J. HJELMHAUG; D. LOBNER. *Marquette Univ., Med. Col. of Wisconsin.*
- 8:00 Q1 **702.17** Characterization of the kallikrein-kinin system post chemical brain injury: An *in vitro* biochemical approach. F. H. KOBEISSY*; A. M. NOKKARI; T. MOUHIEDDINE. *Univ. of Florida, American University of Beirut.*
- 9:00 Q2 **702.18** The effect of oxidative stress on CB1 and CB2 receptors and their relationship with the PPAR γ in substantia nigra of rats exposed to ozone. G. E. GOROSTIETA SALAS*; R. VELÁZQUEZ PÉREZ; S. RIVAS ARANCIBIA. *UNAM.*
- 10:00 Q3 **702.19** Early cell death in oligodendrocytes measured by spectral changes of the fluorescent nuclear dye acridine orange. J. R. PLEMEI*; M. B. KEOUGH; I. MICU; E. R. J. MANFORD; V. W. YONG; P. K. STYS. *Univ. of Calgary, Univ. of Calgary.*
- 11:00 Q4 **702.20** Maternal inflammation is associated with increased Nurr1 expression in the developing brain. A. E. GRAF*; S. W. LALLIER; J. P. GODBOUT; L. K. ROGERS. *Nationwide Children's Hosp., The Ohio State Univ. Col. of Med., The Ohio State Univ. Col. of Med.*
- 8:00 Q5 **702.21** • Transcriptional analysis of apoptotic cerebellar granule neurons following rescue by gastric inhibitory polypeptide. B. MAINO; M. CIOTTI; P. CALISSANO; S. CAVALLARO*. *Functional Genomic Ctr., Inst. of cellular biology and neurobiology-National Res. Council, Natl. Res. Council, Italian Natl. Res. Council.*

9:00 Q6 **702.22** Angiogenesis is involved in cerebral protection induced by hyperbaric oxygen preconditioning against focal cerebral ischemia in rats. S.-S. DUAN; W.-S. DONG; L. YU; J. CHEN; W. JIN; C.-C. REN; Z. JIN*. *Fudan Univ., Shanghai, China*

POSTER

703. Traumatic Brain Injury: Human Studies

Theme C: Disorders of the Nervous System

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

8:00 Q7 **703.01** A robust multichannel method for estimation of EEG power spectra and coherences. T. MELMAN*; N. SCHIFF; J. VICTOR. *Weill Cornell Grad. Sch. of Med. Sci., Weill Cornell Med. Col.*

9:00 Q8 **703.02** qEEG evidence for preservation of the auditory working memory buffer in severely brain injured subjects. H. M. MARKELL; L. F. MENDELS; M. M. CONTE*; N. D. SCHIFF. *Univ. of Pennsylvania, Weill Cornell Med. Col., Brain & Mind Res. Inst.*

10:00 Q9 **703.03** Using customized behavioral assessments to measure covert cognition in the severely brain-injured. L. F. MENDELS; T. NAUVEL; J. HERSH; M. M. CONTE; N. D. SCHIFF*. *Weill Cornell Med. Col., Weill Cornell Med. Col.*

11:00 Q10 **703.04** Test-retest reliability of multitaper quantitative resting state EEG measures in healthy volunteers. T. J. NAUVEL*; M. M. CONTE; N. D. SCHIFF. *Weill Cornell Med. Col.*

8:00 R1 **703.05** Differential electroencephalographic responses to familiar and unfamiliar music processing in disorders of consciousness. B. C. FIDALI*; D. J. THENGONE; T. NAUVEL; Z. M. ADAMS; N. D. SCHIFF. *Weill Cornell Med. Col.*

9:00 R2 **703.06** ▲ Normalization of sleep architecture in the setting of central thalamic DBS implantation in a minimally conscious patient. Z. M. ADAMS*; P. B. FORGACS; D. J. THENGONE; M. M. CONTE; N. D. SCHIFF. *Weill Cornell Med. Col.*

10:00 R3 **703.07** Structural connectivity between the thalamus and fronto-temporal regions predicts level of awareness in disorders of consciousness. Z. ZHENG*; N. REGGENTE; E. LUTKENHOFF; A. OWEN; M. MONTI. *UCLA, Univ. of Western Ontario.*

11:00 R4 **703.08** Vestibular-cognitive-postural effects and a biomarker signature from sub-concussive head impact. S. HWANG*; K. KAWATA; L. MA; H. LEE; L. B. MOORE; P. AGADA; E. D. THOMPSON; E. KRYNETSKIY; J. PARK; R. TIERNEY; J. J. JEKA. *Temple Univ., Temple Univ., Temple Univ., Shriners Hosp. for Children.*

8:00 R5 **703.09** The association of IGF-1 and mental disorders after mild traumatic brain injury. Y. CHIANG*; K. CHEN; C. WU; S. TSAI; J. OU. *Taipei Med. Univ., Taipei Med. Univ., Taipei Med. Univ., Shuang Ho Hosp.*

9:00 R6 **703.10** Post-traumatic amnesia: Disconnection between the hippocampus and default mode network. S. DE SIMONI*; P. GROVER; P. O. JENKINS; G. SCOTT; M. H. WILSON; A. D. WALDMAN; D. J. SHARP. *Imperial Col. London, Imperial Col. London.*

10:00 R7 **703.11** Traumatic brain injury prematurely ages the brain. J. COLE*; R. LEECH; D. J. SHARP. *Imperial Col. London.*

11:00 R8 **703.12** Correlation of Bmx/Etk serum level to dizziness and depression indices after mild traumatic brain injury. K. CHEN*; Y. CHIANG; C. WU; Y. TSAI; J. OU. *Taipei Med. Univ., Taipei Med. Univ. Hosp., Shuang-Ho Hosp.*

8:00 R9 **703.13** Heart rate variability as a prognostic indicator of emotional disorders in patients with mild traumatic brain injury. J. WANG*; C. SUNG; Y. CHIANG; K. CHEN; J. OU. *Grad. Inst. of Med. Sci. TMU, Grad. Inst. of Med. Sci. TMU, Grad. Inst. of Neural Regenerative Med., Shuang Ho Hospital, Taipei Med. Univ.*

9:00 R10 **703.14** ● Persistence of resting-state fMRI derived outcome measures from weekly sessions over 185 weeks. A. S. CHOE*; S. E. JOEL; C. K. JONES; J. MUSCHELLI; J. W. MCDONALD; V. BELEGU; P. C. M. VAN ZIJL; J. J. PEKAR. *Kennedy Krieger Inst., Johns Hopkins Univ. Sch. of Med., Kennedy Krieger Inst.*

10:00 R11 **703.15** ● Identification of a long-term stress signature in the hippocampus of prenatally stressed rats and in the blood of subjects with childhood trauma history by using mRNA-miRNA integration approach. A. CATTANEO*; A. LUONI; C. PARIANTE; M. RIVA. *King's Col. London, Ctr. of Neuropharmacology, Dept. di Scienze Farmacologiche e Biomolecolari, Univ. degli Studi di Milano.*

11:00 R12 **703.16** Association of deubiquitinating enzyme with traumatic brain injury. I. HAN*; K. BAEK. *CHA Univ., CHA Univ.*

8:00 S1 **703.17** An evaluation of quantitative electroencephalography (QEEG) in relation to serum levels of biomarkers for brain injury in concussed and non-concussed combat zone cohorts. W. CARR*; D. MILHORN; J. ELLIOT; N. ROGERS; R. BRODNICK; M. HARRELL; K. SCHMID; F. TORTELLA; D. HACK. *Walter Reed Army Inst. of Res., Med. Res. and Materiel Command, Naval Hosp. Pensacola, Military Med. Educ. and Training Campus, Tripler Army Med. Ctr., 4th Med. Group - Koritz Clin.*

9:00 S2 **703.18** Evaluation of the neurological effects of repeated exposure to low-level blast overpressure during U.S. Army explosives training. M. L. LOPRESTI*; W. CARR; A. M. YARNELL; T. WALILKO; R. M. MCCARRON. *Walter Reed Army Inst. of Res., Applied Res. Associates, Inc., Naval Med. Res. Ctr.*

10:00 S3 **703.19** ● Repetitive mild blast in mice induces cerebellar Purkinje cell loss and white matter injury that is anatomically similar to chronic FDG-PET hypometabolism in blast-exposed Veterans. J. S. MEABON; B. R. HUBER; E. C. PETRIE; D. J. CROSS; J. C. WILEY; E. R. PESKIND; D. G. COOK*. *VA Med. Ctr. / Univ. of Washington, Univ. of Washington, VA Med. Ctr. / Univ. of Washington.*

11:00 S4 **703.20** Omic profiling identifies distinct genetic, protein and lipid biomarker profiles correlating with MRI in military service members with TBI and PTSD. T. E. EMMERICH*; F. CRAWFORD; L. ABDULLAH; J. EVANS; G. CRYNEN; A. HART; A. GONZALEZ; T. DENNEYJR.; J. ROBINSON; J. KATZ; G. DESHPANDE; M. DRETSCH; J. REED; M. MULLAN. *Roskamp Inst., The Open Univ., James A. Haley Veterans' Hosp., AU MRI Res. Ctr., Natl. Intrepid Ctr. of Excellence, US Army Aeromedical Res. Lab.*

8:00 S5 **703.21** Serum prolactin concentration progressed from lower to higher quartiles in athletes following sports-related concussion. M. LAFOUNTAIN*; A. TESTA; W. A. BAUMAN. *Seton Hall Univ., James J. Peters VA Med. Ctr.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

704. Spinal Cord Injury

Theme C: Disorders of the Nervous System

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

- 8:00 S6 **704.01** *In vivo* and *in vitro* mechanisms of bisperoxovanadium-mediated neuroprotection following traumatic spinal injury. C. L. WALKER*; X. WU; N. LIU; X. XU. *Indiana Univ. Sch. of Med.*
- 9:00 S7 **704.02** Defining the role of β 1-integrin in gliosis after spinal cord injury. S. JEONG; J. A. KESSLER*; L. PAN; H. NORTH; T. MCGUIRE. *Northwestern Univ., Northwestern Univ.*
- 10:00 S8 **704.03** Treatment with diluted bee venom of the ST36 acupoint reduces both spinal inflammatory responses and central neuropathic pain behaviors after spinal cord injury in rats. S. KANG*; D. ROH; J. LEE; O. KWON; S. YEON; K. CHOI; S. CHO; S. CHOI; Y. RYU. *Korea Inst. of Oriental Med., Kyung Hee Univ., Seoul Natl. Univ.*
- 11:00 S9 **704.04** Pattern of oligodendrocyte progenitor cell migration following a spinal contusion injury. J. R. SIEBERT*; K. H. FLYNN; K. SWIECK; D. J. OSTERHOUT. *Lake Erie Col. of Osteo. Med. @ Seton Hill, SUNY Upstate Med. Univ.*
- 8:00 S10 **704.05** Functional recovery following spinal cord injury in platelet-activating factor receptor null mutant mice. Y. WANG*; Z. GAO; Y. ZHANG; R. WU; Q. ZHU; D. GOZAL; C. B. SHIELDS; J. CAI. *The First Hosp. Fo Jilin Univ., Univ. of Louisville, Norton Neurosci. Institute, Norton Healthcare, Third Hosp. of Jilin Univ., Comer Children's Hospital, Univ. of Chicago.*
- 9:00 S11 **704.06** Analysis of metabolic profile of the first 7-days following spinal cord injury using a porcine model of SCI. E. B. OKON*; F. STREIJGER; J. H. T. LEE; N. MANOUCHEHRI; K. SO; B. KWON. *Univ. British Columbia, Univ. British Columbia, Univ. British Columbia.*
- 10:00 S12 **704.07** ▲ Characterization of cellular reactions during adaptive plasticity after a spinal cord injury in the neonatal mouse. R. S. CHAWLA*; M. ZÜCHNER; C. B. SYLTE; J. C. GLOVER; J. BOULLAND. *Univ. of Oslo, Oslo Univ. Hosp., Norwegian Ctr. for Stem Cell Res., Sars Intl. Ctr. for Marine Mol. Biol.*
- 11:00 T1 **704.08** Hematogenous macrophages assemble the fibrotic scar after spinal cord injury. Y. ZHU*; C. SODERBLOM; J. ZHA; V. KRISHNAN; J. ASHBAUGH; J. BETHEA; J. K. LEE. *Univ. of Miami.*
- 8:00 T2 **704.09** PDGFR α -positive progenitor cells form myelinating oligodendrocytes and Schwann cells following contusion spinal cord injury. P. L. ASSINCK*; G. J. DUNCAN; J. R. PLEMEL; M. J. LEE; J. LIU; W. TETZLAFF. *ICORD/ University of British Columbia.*
- 9:00 T3 **704.10** Activity-Dependent myeloid trafficking in locomotor networks after thoracic SCI: Impact on neuroplasticity. C. N. HANSEN*; S. KERR; L. FISHER; R. DEIBERT; E. WOHLER; J. GODBOUT; J. SHERIDAN; D. BASSO. *The Ohio State Univ., The Ohio State Univ., The Ohio State Univ., The Ohio State Univ.*
- 10:00 T4 **704.11** NG2 cell fate after contusive spinal cord injury. A. HACKETT*; D. LEE; A. DAWOOD; P. TSOUFAS; K. K. PARK; J. K. LEE. *The Miami Project To Cure Paralysis.*
- 11:00 T5 **704.12** ▲ Decreased sodium channel expression during spinal cord regeneration in lamprey. J. A. JURAS; A. A. KURUP; R. Y. LEWIS; R. C. PALMARINI; E. S. RICHARDS; Y. J. RODRIGUEZ; R. L. ROSENBERG*. *Earlham Col., Earlham Col., Earlham Col.*
- 8:00 T6 **704.13** Pam3-CSK4-mediated neuroprotective mechanisms in spinal cord injury. S. OKADA*; N. STIVERS; D. P. STIRLING. *Univ. of Louisville, Univ. of Louisville.*
- 9:00 T7 **704.14** Acidic laminin injection for spinal cord repair. A. E. HAGGERTY*; T. L. NOVOSAT; M. OUDEGA. *Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 10:00 T8 **704.15** The role for alarmins in neuroprotection after CNS injury. S. GADANI*; J. WALSH; J. KIPNIS. *Univ. of Virginia.*
- 11:00 T9 **704.16** Manipulation of chondroitin sulphates in regulating regeneration and plasticity in the CNS. J. C. F. KWOK; J. W. FAWCETT*. *Cambridge Univ.*
- 8:00 T10 **704.17** Functional implications of plasticity-related gene-3 (PRG-3) in neuronal cells. P. YU*; C. AGBAEGBU; D. A. MALIDE; Y. KATAGIRI; H. M. GELLER. *Developmental Neurobio. Section, NHLBI, NIH, Georgetown Univ., NHLBI, NIH.*
- 9:00 T11 **704.18** Dorsal root axons terminate regeneration by forming synapses with NG2 glia. H. KIM; S. HAN; G. M. SMITH; G. THOMAS*; S. H. KANG; Y. SON. *Temple Univ., Temple Univ. Med. Sch.*
- 10:00 T12 **704.19** Constitutively active ErbB2 prolongs activation of Schwann cells and promotes peripheral but not intraspinal regeneration of dorsal root axons. Y. SON; S. HAN; H. KIM*; R. PARK; S. KIM; S. LI; G. M. SMITH; A. SKUBA. *Temple Univ., Ctr. For Neural Repair and Rehabilitation, SHPRC at Temple Univ.*
- 11:00 U1 **704.20** Genetically-accessible lesion conditioned axon regeneration in *C. elegans* is independent of the Dual Leucine Zipper Kinase/DLK-1 and mediated by CaMKII/UNC-43. C. V. GABEL*; J. SHAY; S. CHUNG. *Boston Univ. Sch. of Med., Boston Univ. Photonics Ctr., Boston Univ. Sch. of Med.*
- 8:00 U2 **704.21** Caveolae mediated endocytosis of nanospheres in neuronal cells. S. SEBASTIAN*; T. MCALLISTER; S. GHOSH; D. HYND. *Texas Woman's Univ., Southeast Missouri State Univ.*
- 9:00 U3 **704.22** Critical role for protease activated receptor 2-driven interleukin-6 signaling in astrogliosis. M. RADULOVIC*; H. YOON; I. SCARISBRICK. *Mayo Grad. Sch., Mayo Clin.*
- 10:00 U4 **704.23** Neuronal uptake of surface functionalized nanocarriers by clathrin mediated endocytosis. R. AMMASSAM VEETIL*; D. HYND; S. GHOSH; T. MCALLISTER. *Texas Woman's Univ., Southeast Missouri State Univ.*
- 11:00 U5 **704.24** Age-related neuroinflammatory responses in spinal cord injury. B. ZHANG*; W. BAILEY; K. BRAUN; J. GENSEL. *Univ. of Kentucky, Univ. of Kentucky.*
- 8:00 U6 **704.25** Adult myelin stimulates neurite outgrowth from neural progenitor cells. G. H. POPLAWSKI*; R. LIE; P. LU; C. GEOFFROY; B. ZHENG; G. COPPOLA; D. GESCHWIND; M. TUSZYNSKI. *Univ. California SD, VAMC, Univ. of California Los Angeles.*

POSTER

705. Peripheral and Central Nerve Injury

Theme C: Disorders of the Nervous System

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

- 8:00 U7 **705.01** Functional analysis of the regenerated inferior alveolar nerve after local administration of anti-BDNF antibody to the transected site. H. YOSHIKAWA*; Y. M. VALVERDE; T. MAEDA; M. KUROSE; K. YAMAMURA; K. SEO. *Niigata University, Div. of Dent. Anesth., Niigata Univ., Niigata Univ., Niigata Univ.*
- 9:00 U8 **705.02** Spectroscopic evidence for lower neuronal metabolism and time-dependent increases in inhibition within the former sensorimotor hand territory of chronic unilateral amputees. C. M. CIRSTEAN*; H. PENG; S. H. FREY. *Univ. of Missouri, Univ. of Missouri.*
- 10:00 U9 **705.03** Monocarboxylate transporter 1 (MCT1) in perineurial cells is critical for regeneration of peripheral nerves. B. M. MORRISON*; A. TSINGALIA; S. VIDENSKY; S. LENGACHER; L. PELLERIN; P. J. MAGISTRETTI; T. J. PULLEN; G. A. RUTTER; J. D. ROTHSTEIN. *Johns Hopkins Univ., Johns Hopkins Univ., Ecole Polytechnique Federale de Lausanne, Univ. of Lausanne, Imperial Col.*
- 11:00 U10 **705.04** Increased membrane inward rectification current in regenerated peripheral motor axons of man and mouse. M. MOLDOVAN; S. ALVAREZ; C. KRARUP*. *Univ. of Copenhagen, Rigshospitalet.*
- 8:00 U11 **705.05** A combination of Schwann-cell grafts, biodegradable conduits and aerobic exercise enhances ischiatic nerve regeneration. C. O. GOULART; S. JÜRGENSEN; A. SOUTO; J. T. OLIVEIRA; S. DE LIMA; C. TONDA-TURO; S. A. MARQUES; F. M. ALMEIDA; A. B. MARTINEZ*. *UFRJ, UFRJ, Albert Einstein Col. of Med., Politecnico di Torino, UFF, UFRJ.*
- 9:00 U12 **705.06** Role of TNFR family members in Wallerian Degeneration. K. GAMAGE*; S. NACHUM; R. PARK; A. SPANO; A. ERISIR; C. DEPPMANN. *Univ. of Virginia, Univ. of Virginia.*
- 10:00 U13 **705.07** Constitutively active ErbB2 revives chronically denervated, atrophied Schwann cells. S. HAN*; J. ZHAI; M. WRIGHT; W. THOMPSON; T. FERGUSON; Y. SON. *Temple Univ. Sch. of Med., Arcadia Univ., Texas A&M Univ.*
- 11:00 U14 **705.08** An EGFR inhibitor induces Schwann cell proliferation and promotes functional recovery with remyelination in injured peroneal nerve after end-to-side neurorrhaphy. M. ENOMOTO*; M. UKEGAWA; H. KABURAGI; T. HIRAI; A. OKAWA; K. YAGISHITA; Y. WAKABAYASHI. *Tokyo Med. & Dent. Univ., Tokyo Med. & Dent. Univ.*
- 8:00 U15 **705.09** Tempol antioxidant rescues spinal motoneurons from degeneration and prevent apoptotic events after peripheral axotomy in neonatal rats. G. CHIAROTTO*; L. DRUMOND; G. CAVARRETTO; A. BOMBEIRO; A. L. R. OLIVEIRA. *Univ. of Campinas.*
- 9:00 U16 **705.10** Aged Schwann cell grafts impair regeneration of young neurons. J. SCHEIB*; A. R. JUMAN; A. HOKE. *Johns Hopkins Univ., Johns Hopkins Univ.*
- 10:00 U17 **705.11** Conditional co-deletion of PTEN and SOCS3 accelerates functional recovery following peripheral nerve damage. Z. R. GALLAHER*; O. STEWARD. *Univ. of California, Irvine.*
- 11:00 U18 **705.12** Quantitative EEG (qEEG) as a biomarker for traumatic brain injury (TBI) in absence of signs on MRI imaging. G. NEWMAN*; W. E. KOZACHUK; S. HETHER. *The Neurosci. Team.*
- 8:00 U19 **705.13** ● Expression of Heat Shock Protein 27 (HSP 27) and axonal outgrowth after nerve injury and repair. L. B. DAHLIN*; J. ENANDER; B. HAZER; C. LINDWALL-BLOM; L. STENBERG. *Scania Hand Ctr. AB, Lund Univ., Collecticon AB.*
- 9:00 U20 **705.14** Radio-frequency fields elicit neuroma pain. R. GRANJA-VAZQUEZ*; B. R. JOHNSTON; M. I. ROMERO-ORTEGA. *Univ. of Texas At Arlington, UTSW Med. Ctr.*
- 10:00 U21 **705.15** Diffusion tensor tractography study of sensorimotor pathways in unilateral hand amputees. H. PENG*; C. M. CIRSTEAN; K. F. VALYEAR; S. H. FREY. *Univ. of Missouri-Columbia, Univ. of Missouri-Columbia, Univ. of Missouri-Columbia.*
- 11:00 U22 **705.16** 4-aminopyridine (4-ap) locally delivered from plga encapsulated particles is functionally potent on peripheral nerve crush injury. K. TSENG*; H. LI; M. NOBLE; J. EL FAR. *Univ. of Rochester Med. Ctr., Univ. of Rochester Med. Ctr.*
- 8:00 U23 **705.17** Optical stimulation promotes motoneuron-derived sex steroid synthesis. P. J. WARD*; A. W. ENGLISH. *Dept of Cell Biology, Emory Univ.*
- 9:00 U24 **705.18** ▲ Neuroanatomical characterization of reactive gliosis in the brainstem after hypoglossal nerve injury using a newly developed whole-mount imaging technique. P. KHALILI*; A. FROSTELL; S. THAMS; B. MEIJER; M. SVENSSON. *Karolinska Institutet/ Universitetssjukhuset, Karolinska Institutet.*
- 10:00 U25 **705.19** ▲ High content screening of oncogenic and tumor suppressive transcription factors identifies novel promoters of neurite outgrowth. M. SIMPSON*; D. COLEY; Z. WANG; M. BLACKMORE. *Marquette Univ.*
- 11:00 U26 **705.20** Gene expression in ventral root replantation. M. K. SKOLD*; M. GÜNTHER. *Karolinska Institutet, Uppsala Univ.*
- 8:00 U27 **705.21** Defining the astrocyte CSPG and ECM transcriptome *in vivo* by cell-type specific analysis of actively translated mRNA. J. E. BURDA*; Y. AO; F. GAO; G. COPPOLA; M. V. SOFRONIEW. *UCLA, UCLA, UCLA, UCLA, UCLA.*
- 9:00 U28 **705.22** Transcriptome network analysis identifies a developmental switch gene that limits regenerative ability in the adult CNS. A. TEDESCHI*; S. DUPRAZ; C. LASKOWSKI; J. XUE; T. ULAS; M. BEYER; J. L. SCHULTZE; F. BRADKE. *German Ctr. For Neurodegenerative Dis. DZNE, LIMES-Institute, Univ. of Bonn.*
- 10:00 U29 **705.23** Multiplexed digital counting of mRNA transcripts representing immune/inflammation pathways over time after experimental spinal cord trauma. S. M. KNOBLACH*; E. P. HOFFMAN; A. I. FADEN; B. HARMON. *Children's Natl. Med. Cr, Childrens Natl. Med. Ctr., Univ. of Maryland, Baltimore.*
- 11:00 U30 **705.24** ● Inflammatory gene expression following spinal cord injury is reduced in osteocalcin null mutant mice. D. E. BENJAMIN; D. SUN; L. A. POHORECKY-DOLINSKY*; J. VATSON; P. PATTERSON-BUCKENDAHN. *Cenoxsys Corp., Keck Ctr., Rutgers Univ., Rutgers Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 U31 **705.25** Transcriptomic profiling of corticospinal neurons after spinal cord injury: Candidate mechanisms of regeneration. J. N. DULIN*; A. BLESCH; G. COPPOLA; D. H. GESCHWIND; M. H. TUSZYNSKI. *UCSD, Univ. Hosp. Heidelberg, UCLA, Veterans Affairs Med. Ctr.*

POSTER

706. Psychosis and Affect: Human Biomarker Studies

Theme C: Disorders of the Nervous System

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

- 8:00 U32 **706.01** DISC1 serine-713 phosphorylation-dependent neurodevelopmental switch: Its impact on anatomy, cognition and mental conditions. K. ISHIZUKA*; Y. HORIUCHI; S. ISHII; N. GAMO; A. SAITO; T. RATNANATHER; S. KULASON; D. SCHRETLEN; A. KAMIYA; M. MILLER; H. OKANO; A. SAWA. *Johns Hopkins Univ., Keio Univ., Johns Hopkins Univ.*
- 9:00 U33 **706.02** MEG comparisons of shared information among schizophrenics, normal controls, and unaffected siblings. S. E. ROBINSON*; A. MANDELL; D. R. WEINBERGER; R. COPPOLA. *NIH/NIMH, Univ. of California San Diego, Johns Hopkins Univ. Sch. of Med.*
- 10:00 U34 **706.03** Abnormal neural oscillations and lagged connectivity in patients with first episode psychosis. A. RAMYEAD*; E. STUDERUS; M. KOMETER; U. GSCHWANDTNER; P. FUHR; A. RIECHER-ROSSLER. *Univ. of Basel, Univ. of Zurich, Univ. of Basel.*
- 11:00 U35 **706.04** Delineating psychotic disorders by use of proton magnetic resonance imaging (¹H-MRS). F. HOWELLS*; J. H. HSIEH; H. TEMMINGH; D. J. STEIN. *Dept. of Psychiatry, Univ. of Cape Town.*
- 8:00 U36 **706.05** Amygdala functional connectivity and affective reactivity differentiates manic and depressive mood states across bipolar and unipolar mood disorders. V. MAN*; J. GRUBER; D. C. GLAHN; W. A. CUNNINGHAM. *Univ. of Toronto, Yale Univ., Univ. of Colorado, Boulder, Yale Univ.*
- 9:00 V1 **706.06** The effects of neuroleptic treatment and diagnosis on ventral striatal activation during reward anticipation in drug-free patients with schizophrenia. C. HEGARTY*; D. P. EISENBERG; J. DREHER; P. KOHN; J. A. APUD; D. R. WEINBERGER; K. F. BERMAN. *Natl. Inst. of Mental Hlth., Brown Univ., The Lieber Inst. for Brain Develop.*
- 10:00 V2 **706.07** Evidence for inhibitory deficits in the prefrontal cortex in schizophrenia. N. RADHU*; L. GARCIA DOMINGUEZ; F. FARZAN; M. SEMERALUL; M. A. RICHTER; Z. J. DASKALAKIS. *Ctr. For Addiction and Mental Hlth., Ctr. for Addiction and Mental Hlth., Sunnybrook Hlth. Sci. Centre, Univ. of Toronto.*
- 11:00 V3 **706.08** Complex patterns of activity across the 24-hour day predict susceptibility to mental health and neurodegenerative disorders: Evidence in humans and monkeys. H. SHOU; L. CUI; N. HA; A. LEROUX; K. SUBRAMANIAN; Z. ZHANG; N. D. RYAN; V. ZIPUNNIKOV; C. CRAINICEANU; J. L. CAMERON*; K. MERIKANGAS. *Johns Hopkins Univ., Natl. Inst. of Mental Hlth., Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Kentucky, Univ. Pittsburgh Sch. Med.*

- 8:00 V4 **706.09** Alterations of mGluR5 and mGluR5 signaling partners in schizophrenia. N. MATOSIN*; M. ENGEL; F. FERNANDEZ-ENRIGHT; J. S. LUM; J. L. ANDREWS; X. HUANG; K. A. NEWELL. *Univ. of Wollongong, Schizophrenia Res. Inst., Univ. of Wollongong.*
- 9:00 V5 **706.10** Serotonin transporter clustering in blood lymphocytes predicts the outcome on anhedonia scores in naïve depressive patients treated with antidepressant medication. H. J. CARUNCHO*; T. RIVERA-BALTANAS; R. C. AGIS-BALBOA; L. E. KALYNCHUK; J. M. OLIVARES. *Univ. of Saskatchewan, Biomed. Res. Inst. of Vigo (IBIV), Univ. of Saskatchewan.*
- 10:00 V6 **706.11** Investigating the circuitry effect of nucleus accumbens deep brain stimulation in humans with fMRI. W. GIBSON*; P. MIN; O. ABULSEUD; J. FELMLEE; K. GORNY; S. CHANG; K. WELKER; C. FAVAZZA; B. KLASSEN; K. LEE. *Mayo Grad. Sch., Mayo Clin., Mayo Clin., Mayo Clin., Mayo Clin., Mayo Clin.*
- 11:00 V7 **706.12** How combined serotonin-1A receptor agonist and 2A-receptor antagonist can heal hypoactive sexual desire disorder (HSDD). G. HOLSTEGE*. *The Univ. of Queensland, Herston Qld 4006, Australia.*
- 8:00 V8 **706.13** Lithium increases granule neuron number in the dentate gyrus of subjects with bipolar disorder. A. N. SANTIAGO*; T. H. BUTT; G. B. ROSOKLIJA; A. DWORK; R. HEN; V. ARANGO; J. MANN; M. BOLDRINI. *Columbia Univ., New York State Psychiatric Inst., Macedonian Acad. of Sci. and Arts, Columbia Univ., New York State Psychiatric Inst., New York State Psychiatric Inst., Columbia Univ.*
- 9:00 V9 **706.14** Intrinsic activity in cortico-limbic networks predicts ECT response in major depression. A. M. LEAVER*; T. PIRNIA; S. JOSHI; R. WOODS; R. ESPINOZA; K. NARR. *UCLA.*
- 10:00 V10 **706.15** Accelerated immunosenescence in patients with bipolar disorder type 1. L. B. RIZZO*; C. H. DO PRADO; A. WIECK; B. L. CORREA; R. P. LOPES; * GRASSI-OLIVEIRA; E. BRIETZKE; M. E. BAUER. *UNIFESP, Pontifical Catholic Univ. of Rio Grande do Sul (PUCRS), Pontifical Catholic Univ. of Rio Grande do Sul (PUCRS), Pontifical Catholic Univ. of Rio Grande do Sul (PUCRS), Federal Univ. of São Paulo (UNIFESP).*
- 11:00 V11 **706.16** Pretreatment resting state salience network connectivity predicts response to psychotherapy in major depression. A. J. CROWTHER*; J. MINKEL; T. MOORE; M. SMOSKI; G. DICHTER. *Univ. of North Carolina at Chapel Hill, Duke Univ. Med. Ctr., Univ. of North Carolina at Chapel Hill, Duke-UNC Brain Imaging and Analysis Ctr. (BIAC).*
- 8:00 V12 **706.17** Transcriptomic evidence for immaturity of the prefrontal cortex in patients with schizophrenia. H. HAGIHARA*; K. OHIRA; K. TAKAO; T. MIYAKAWA. *Fujita Hlth. Univ., CREST, JST, Natl. Inst. for Physiological Sci.*
- 9:00 V13 **706.18** Pgc-1α-mediated transcriptional regulation in pyramidal neurons impacts electrophysiological properties and behavioral output. L. J. MCMEEKIN*; A. S. BOHANNON; J. J. HABLITZ; R. M. COWELL. *Univ. of Alabama At Birmingham.*
- 10:00 V14 **706.19** Mapping dopaminergic deficiencies in the substantia nigra/ ventral tegmental area in schizophrenia. E. PEREZ-COSTAS*; M. W. RICE; R. C. ROBERTS; M. MELENDEZ-FERRO. *Univ. of Alabama At Birmingham.*

- 11:00 V15 **706.20** DISC1 regulates endoplasmic reticulum calcium dynamics. S. PARK; J. JEONG; Y. PARK; K. PARK; H. LEE; N. LEE; S. KIM; C. PARK; Y. SEO; B. SEO; K. KURODA; M. NGUYEN; K. KAIBUCHI; S. PARK*. *POSTECH, Nagoya Univ., Univ. of Calgary.*
- 8:00 V16 **706.21** Reduced cortical grey matter volume in patients with schizophrenia is exaggerated in those with high inflammatory cytokines. V. S. CATTS*; Y. ZHANG; D. SHEEDY; J. KRIL; C. SHANNON WEICKERT. *Neurosci. Res. Australia, Schizophrenia Res. Inst., Univ. of New South Wales, Univ. of Sydney.*
- 9:00 V17 **706.22** Cytochrome c oxidase dysfunction in the substantia nigra/ ventral tegmental area in schizophrenia. M. MELENDEZ-FERRO*; M. W. RICE; K. L. SMITH; R. C. ROBERTS; E. PEREZ-COSTAS. *Univ. of Alabama At Birmingham.*
- 10:00 V18 **706.23** ● Protein expression distinguishing layers 3 and 5 of the human prefrontal cortex. M. L. MACDONALD*; D. ARION; M. GRUBISHA; D. A. LEWIS; N. YATES; R. SWEET. *Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 11:00 V19 **706.24** The expression of developmentally-regulated PGC-1 α -dependent genes is reduced in the cortex of patients with schizophrenia. R. M. COWELL*; E. K. LUCAS; J. MOLINA; J. H. MEADOR-WOODRUFF; J. E. KLEINMAN; R. E. MCCULLUMSMITH; R. C. HENDRICKSON; R. C. ROBERTS; K. L. GAMBLE; L. J. MCMEEKIN. *Univ. Alabama Birmingham, Mt. Sinai Sch. of Med., NIH, Johns Hopkins Univ., Univ. of Cincinnati, Univ. Alabama Birmingham.*
- 8:00 V20 **706.25** Function of GluN receptors in pyramidal neurons is hypoactive in schizophrenia. A. BANERJEE*; H. WANG; C. EGBUJO; S. J. SIEGEL; K. BORGMANN-WINTER; C. HAHN. *Univ. Pennsylvania, City College, City Univ. of New York, Univ. Pennsylvania and Children's Hosp. of Philadelphia, Univ. of Pennsylvania.*
- 9:00 V21 **706.26** Inhibitory interneuron deficit is related to elevated death receptor expression in the orbital frontal cortex in schizophrenia. D. JOSHI*; V. S. CATTS; J. C. OLAYA; C. WEICKERT. *Neurosci. Res. Australia, Schizophrenia Res. Inst., Univ. of New South Wales.*
- 10:00 V24 **707.03** Exposure to enriched environment prevents the development of deficit in sensorimotor gating in prenatally MAM treated rats. E. BATOR*; J. LATUSZ; K. GLOMBIK; K. WEDZONY; M. MACKOWIAK. *Inst. of Pharmacol. Polish Acad. of Scienc.*
- 11:00 V25 **707.04** IL-6 induced metabolic changes in developing neurons and astroglia. J. A. BROWN*; S. D. SHERROD; C. R. GOODWIN; B. BREWER; K. A. GARBETT; L. YANG; D. LI; J. P. WIKSWO; K. MIRNICS. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*
- 8:00 V26 **707.05** Autoradiographic studies of maternal immune activation in male and female offspring. A. BIEGON*; S. PERY; J. DHAWAN; I. WEINER. *Stony Brook Univ., Tel Aviv Univ.*
- 9:00 V27 **707.06** Role of CB1 receptors in the Contextual Fear Conditioning (CFC) deficit in an animal model of schizophrenia - the Spontaneously Hypertensive Rats (SHR). F. F. PERES*; R. LEVIN; C. M. SANTOS; V. ALMEIDA; J. E. HALLAK; A. W. ZUARDI; J. A. CRIPPA; V. C. ABÍLIO. *Federal Univ. of Sao Paulo, Federal Univ. of Sao Paulo, Univ. of Sao Paulo.*
- 10:00 V28 **707.07** The systemically active kynurenine aminotransferase II inhibitor BFF816 attenuates contextual memory deficit induced by chronic prenatal kynurenine elevation in rats. A. POCIVAVSEK*; H. WU; M. OKUYAMA; Y. KAJI; G. I. ELMER; J. P. BRUNO; R. SCHWARCZ. *Univ. of Maryland Sch. of Med., Mitsubishi-Tanabe Pharma Corp., Mitsubishi-Tanabe Pharma Corp., AbbVie, The Ohio State Univ.*
- 11:00 V29 **707.08** Examining the motoric effects of vesicular monoamine transporter 1 depletion (VMAT1-/-) in young and aged mice. C. R. MERRITT*; K. A. WEBSTER; J. J. WINDLE; J. K. STEWART; J. H. PORTER. *Virginia Commonwealth Univ., Virginia Commonwealth Univ., Virginia Commonwealth Univ.*
- 8:00 V30 **707.09** Immune response to Toxoplasma can be responsible for some neurobehavioral changes in chronically infected mice. G. KANNAN*; K. L. GRESSITT; J. A. CRAWFORD; L. JONES-BRANDO; R. H. YOLKEN; M. V. PLETNIKOV. *Johns Hopkins, Johns Hopkins, Johns Hopkins.*
- 9:00 V31 **707.10** Age and sex differences in operant learning and corticosterone in vesicular monoamine transporter 1 depleted mice (VMAT1-/-). J. K. STEWART*; K. A. WEBSTER; K. FISCHER-STENGER; Y. GENG; E. C. GONYE; J. J. WINDLE; J. H. PORTER. *VA Commonwealth Univ., VA Commonwealth Univ., Univ. of Richmond, VA Commonwealth Univ.*
- 10:00 V32 **707.11** Exploring behavioral outcomes of vesicular monoamine transporter 1 depletion (VMAT1-/-) in young and aged mice. K. A. WEBSTER*; P. M. BEARDSLEY; J. J. WINDLE; J. K. STEWART; J. H. PORTER. *Virginia Commonwealth Univ., Virginia Commonwealth Univ., Virginia Commonwealth Univ., Virginia Commonwealth Univ.*
- 11:00 W1 **707.12** Delayed cortical maturation, enhanced fear conditioning and social deficits in mice exposed to perinatal ketamine. M. BEHRENS*; A. KHAN; N. D. JOHNSON; E. A. MUKAMEL; J. D. LUCERO; T. J. SEJNOWSKI; V. B. RISBROUGH; S. B. POWELL. *The Salk Inst., UCSD, The Salk Institute, The Salk Institute, HHMI, The Salk Inst.*

POSTER

707. Developmental Animal Models of Schizophrenia

Theme C: Disorders of the Nervous System

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

- 8:00 V22 **707.01** Chronic administration of the neurotrophic agent Cerebrolysin attenuates neuronal abnormalities in the signaling regulation in prefrontal cortex, dorsal hippocampus and nucleus accumbens induced by neonatal ventral hippocampus lesion. R. A. VAZQUEZ*, SR; E. MASLIAH; G. FLORES. *Inst. De Fisiología Benemérita Univ. Autónoma De Puebla, Univ. of California San Diego.*
- 9:00 V23 **707.02** ● Long term effects of late prenatal immune activation: Transcriptome analysis and relevance for psychiatric disorders. J. RICHTO*; A. CATTANEO; U. MEYER; M. A. RIVA. *Univ. of Milan - Disfeb, King's Col. London - Inst. of Psychiatry, Neuropsychopharm. Unit - Inst. di Ricovero e Cura a Carattere Scientifico San Giovanni di Dio, Lab. of Physiol. and Behavior - Swiss Federal Inst. of Technol. (ETH).*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 W2 **707.13** Zinc finger protein 804A (ZNF804A) levels in the developing brain. E. BENEDIKZ*; K. RICH; K. HVID. *Univ. of Southern Denmark.*
- 9:00 W3 **707.14** Altered NADPH-diaphorase activity in the prefrontal cortex in a neurodevelopmental disruption model of schizophrenia. S. M. DIBBLE*; A. A. GRACE. *Univ. of Pittsburgh.*
- 10:00 W4 **707.15** Early adolescent NMDA receptor blockade impairs the maturation of the prefrontal GABAergic system and PFC-dependent fear extinction behavior. D. R. THOMASES*; E. FLORES-BARRERA; J. A. ROSENKRANZ; K. Y. TSENG. *Rosalind Franklin Univ. of Med. and Sci.*
- 11:00 W5 **707.16** Adolescent-specific abnormal stress responsivity in a rodent developmental disruption model of schizophrenia. E. C. ZIMMERMAN*; A. A. GRACE. *Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh.*
- 8:00 W6 **707.17** A master regulator of hindbrain development, EGR2 is upregulated in the forebrain during prenatal stages of development in DISC1 mutant mice. P. L. KATSEL*; W. TAN; P. FAM; B. ABAZYAN; M. XIA; M. PLETNIKOV; V. HAROUTUNIAN. *Mount Sinai Med. Ctr., The Johns Hopkins Univ., JJ Peters VA Med. Ctr.*
- 9:00 W7 **707.18** Role of the basolateral amygdala in impaired context processing in the MAM model of schizophrenia. K. M. GILL*; A. A. GRACE. *Univ. Pittsburgh, Univ. Pittsburgh.*
- 10:00 W8 **707.19** Reelin, an extracellular matrix protein linked to early onset psychiatric diseases, drives postnatal development of the prefrontal cortex. B. LAMINE*; J. IAFRATI; J. OREJARENA; O. LASSALLE; C. GONZALEZ CAMPO; P. CHAVIS. *INSERM.*
- 11:00 W9 **707.20** Postnatal injection of homocysteic acid leads to the development of a mixed state of mania and depression-like behavior in female, but not male, Sprague Dawley rats. L. A. CHASE*; G. FLORES; J. JOHNSON; J. GABLE; C. C. BARNEY. *Hope Col., Hope Col., Hope Col., Hope Col.*
- 8:00 W10 **707.21** ▲ Expression of EAAC1 but not AMPA glutamate receptors is increased in the prefrontal cortex of rats reared in isolation from weaning. M. A. FERREIRA*; G. BORGES; J. RODRIGUES; K. MORIYAMA; M. SANTOS; N. BOSAIPO; M. IYOMASA; M. ROSA. *FIPA - Faculdades Integradas Padre Albino, Faculdade Filofofia Ciências e Letras - FFCLRP USP, Barretos Sch. of Hlth. Sci., Instituto Neurociências - INeC USP.*
- 9:00 W11 **707.22** Maternal behavior of neonatal ventral hippocampus lesioned female rats. C. P. SANCHEZ*; S. GUZMAN-VELAZQUEZ; S. R. ZAMUDIO; G. FLORES; I. CAMACHO; G. M. MÁRQUEZ-PORTILLO; M. FLORES-JIMÉNEZ; Á. I. MELO. *Inst. Politécnico Nacional, Inst. de Fisiología-BUAP, Ctr. de Investigación en Reproducción Animal, CINVESTAV-Laboratorio Tlaxcala, Univ. Autónoma de Tlaxcala.*
- 10:00 W12 **707.23** Prenatal dexamethasone exposure induces asymmetrical ventriculomegaly and abnormal sensorimotor gating in mice. S. L. BENNER*; T. ENDO; K. ISHII; K. KUBO; K. NAKAJIMA; C. TOHYAMA; M. KAKAYAMA. *The Univ. of Tokyo, Keio Univ. Sch. of Med., Nagasaki Univ. Grad. Sch. of Biomed. Sci.*
- 11:00 W13 **707.24** A critical role of GABA release from ErbB4-positive interneurons in neural development. T. W. LIN*; D. YIN; A. BARIK; W. XIONG; L. MEI. *Georgia Hlth. Sci. Univ., Georgia Regents Univ., Georgia Regents Univ.*
- 8:00 W14 **707.25** ▲ Attenuation of compulsive cocaine-seeking in the neonatal ventral hippocampal lesion model of schizophrenia. U. GYAWALI*; S. HIRSH; A. H. BRADY. *St. Mary's Col. of Maryland.*
- 9:00 W15 **707.26** Dissecting the neuronal function of two different forms of DISC1 in *Drosophila*. B. LU*; L. SHAO; Y. ZHAO; L. WANG; Y. ZHONG. *Tsinghua Univ., HHMI Janelia farm research campus.*
- 10:00 W16 **707.27** Effect of early social isolation and artificial rearing in the copulatory behavior of male rats: Role of body and perineal tactile stimulation. C. AGUILAR; M. FLORES-JIMÉNEZ; V. RODRÍGUEZ-PIEDRACRUZ; R. LUCIO; A. I. MELO*. *Maestría en Ciencias Biológicas, Univ. Autónoma de Tlaxcala. CTBC-CIRA, Cinvestav-lab.tlax.Universidad Autónoma De Tlaxcala, Ctr. Tlaxcala de Biología de la Conducta, Univ. Autónoma de Tlaxcala.*
- 11:00 W17 **707.28** ● Impairments in working memory and conditioned reinforcement in the rat MAM model of schizophrenia. D. YOUNG*; T. A. LANZ; L. O'MALLEY; R. KOZAK; W. M. HOWE. *Pfizer Inc.*
- 8:00 W18 **707.29** Amygdala hyperactivity in MAM model of schizophrenia and its reversal by peripubertal diazepam administration. Y. DU*; A. A. GRACE. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

POSTER

708. Mood Disorders: Human Postmortem

Theme C: Disorders of the Nervous System

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

- 8:00 W19 **708.01** Oligodendrocytes and cerebral white matter integrity in depressed suicides. A. TANTI*; M. WAKID; M. A. DAVOLI; G. TURECKI; N. MECHAWAR. *McGill Group For Suicide Studies.*
- 9:00 W20 **708.02** GDNF signaling in the amygdala of depressed suicides. M. E. MAHEU*; J. P. LOPEZ; M. A. DAVOLI; L. CRAPPER; G. TURECKI; C. ERNST; N. MECHAWAR. *Douglas Mental Hlth. Univ. Inst.*
- 10:00 W21 **708.03** Differential gene expression patterns in various sub-nuclei of human amygdala. V. SHARMA*; M. HAGENAUER; S. CHAUDHURY; R. C. THOMPSON; R. M. MYERS; A. F. SCHATZBERG; J. D. BARCHAS; W. E. BUNNEY; H. AKIL; S. J. WATSON. *Univ. of Michigan, Univ. of Michigan, HudsonAlpha Inst. for Biotech., Stanford Univ., Weil Cornell Med. Col., University of California Irvine.*
- 11:00 W22 **708.04** GluA2 RNA editing is increased in major depression and suicide. E. NWABUISI-HEATH*; A. GUIDOTTI; E. DONG; K. RATIA; M. SODHI. *Univ. of Illinois at Chicago, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago.*
- 8:00 W23 **708.05** Selective dysregulation of dendritically-targeted BDNF transcripts and interneuron markers in the dorsolateral prefrontal cortex of major depressive disorder. H. OH*; D. A. LEWIS; E. L. SIBILLE. *Univ. of Pittsburgh.*

- 9:00 W24 **708.06** A unique gene expression signature associated with serotonin 2C receptor RNA editing in the prefrontal cortex and altered in suicide. S. DRACHEVA*; A. F. DI NARZO; A. KOZLENKOV; P. ROUSSOS; K. HAO; Y. HURD; D. A. LEWIS; E. SIBILLE; L. J. SIEVER; E. V. KOONIN. *James J. Peters VA Med. Ctr., Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, James J. Peters VA Med. Ctr., Icahn Sch. of Med. at Mount Sinai, Univ. of Pittsburgh, NCBI, NLM, NIH.*
- 10:00 W25 **708.07** ● Investigating inflammatory markers in the choroid plexus of depressed suicides. J. DEVORAK*; S. G. TORRES-PLATAS; M. DAVOLI; N. MECHAWAR. *Douglas Mental Hlth. Univ. Inst., McGill Univ.*
- 11:00 W26 **708.08** Role of Wnt/ β -catenin and mTOR pathways in antidepressant response in human brain. F. PILAR-CUELLAR*; R. VIDAL; R. LINGE; B. ROMERO; A. DIAZ; E. CASTRO; E. M. VALDIZAN; A. PAZOS. *CIBERSAM, Inst. De Salud Carlos III, Inst. de Biomedicina y Biotecnología de Cantabria (IBBTec) (UC-CSIC-SODERCAN), Dpto. de Fisiología y Farmacología, Univ. de Cantabria.*
- 8:00 W27 **708.09** ▲ Increased incidence of adenomas and differences in zinc presence in adenopituitary of young adult suicide victims. H. TENDILLA*, SR; P. AGUILAR-ALONSO; F. DE LA CRUZ; F. GARCÍA-DOLORES; E. BALTAZAR-GAYTÁN; G. FLORES. *Inst. De Fisiología, Benemérita Univ. Autónoma De Puebla, Univ. of Puebla, Escuela Nacional de Ciencias Biológicas, Inst. Politécnico Nacional, Hosp. Regional 18 de Octubre, ISSSTE.*
- 9:00 W28 **708.10** ● The functional serotonin 1a receptor promoter polymorphism, rs6295, is associated with psychiatric illness and differences in transcription. Z. R. DONALDSON*; B. LE FRANCOIS; T. L. SANTOS; M. BOLDRINI; V. ARANGO; C. A. STOCKMEIER; K. J. RESSLER; P. R. ALBERT; R. HEN. *Columbia Univ., Univ. of Ottawa, New York State Psychiatric Inst., Columbia University/New York State Psychiatric Inst., Univ. of Mississippi Med. Ctr., Emory Univ.*
- 10:00 W29 **708.11** A truncated form of tropomyosin-related kinase B (TrkB) is deregulated in frontal cortex of suicide completers through molecular mechanisms involving its 3'UTR DNA sequence. G. MAUSSON*; J. YANG; V. YERKO; M. SUDERMAN; A. DIALLO; C. NAGY; M. ARNOVITZ; P. BARKER; C. ERNST; N. MECHAWAR; G. TURECKI. *Douglas Mental Hlth. Univ. Inst., McGill Univ., Montreal Neurolog. Inst.*
- 11:00 W30 **708.12** Comparative expression of neuropeptide processing enzymes in the postmortem hippocampus of control vs. depressed subjects. M. WASELUS*; D. N. LOVAY; A. MEDINA; S. BURKE; W. E. BUNNEY; R. M. MYERS; A. F. SCHATZBERG; J. D. BARCHAS; H. AKIL; S. J. WATSON. *Univ. of Michigan, Univ. of California, Irvine, HudsonAlpha Inst. for Biotech, Stanford Univ., Weill Cornell Med. Col.*
- 8:00 W31 **708.13** Analysis of hypothalamic substance p mRNA in major depressive disorder. D. M. KROLEWSKI*; A. MEDINA; R. M. MYERS; A. SCHATZBERG; J. D. BARCHAS; W. E. BUNNEY; H. AKIL; S. J. WATSON. *Univ. of Michigan, Hudson Alpha Inst., Stanford Univ., Cornell Univ., Univ. of California, Irvine.*

- 9:00 W32 **708.14** Temporally and subregionally specific involvement of hippocampal neuregulin-1/ErbB3 signaling in neurogenic and affective regulation. I. MAHAR*; B. LABONTÉ; A. MACISAAC; S. TAN; M. DAVOLI; S. DOMINGUEZ-LOPEZ; C. QIANG; A. RACHALSKI; G. TURECKI; N. MECHAWAR. *Douglas Mental Hlth. Univ. Inst., McGill Univ., McGill Univ., McGill Univ.*
- 10:00 W33 **708.15** Epigenetic regulation of the anterior cingulate cortex by childhood maltreatment. P. LUTZ*; G. G. CHEN; R. POUJOL; A. B. DIALLO; K. VAILLANCOURT; C. ERNST; G. TURECKI. *Douglas Institute's Res. Ctr.*

POSTER

709. Mood Disorders: Animal Models I

Theme C: Disorders of the Nervous System

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

- 8:00 W34 **709.01** ● Abnormal gamma oscillations in a genetic rat model of depression. P. STIENEN; A. RACHALSKI; M. LINDSKOG; E. ÅBERG*. *Astrazeneca Translational Sci. Ctr., Karolinska Institutet, Karolinska Institutet.*
- 9:00 W35 **709.02** ● Antidepressant actions of nucleus accumbens high-frequency stimulation in a preclinical model of treatment resistant depression. R. P. KALE*; A. Z. KOUZANI; K. WALDER; M. BERK; S. J. TYE. *Mayo Clin., Deakin Univ., Deakin Univ., Florey Inst. of Neurosci. and Mental Hlth.*
- 10:00 W36 **709.03** ▲ The effect of chronic mild stress on pyramidal cell number in four subfields of the rat hippocampus. M. M. BUSCK*; J. R. NYENGAARD; J. SCHEEL-KRÜGER; O. WIBORG; A. MØLLER. *Aarhus Univ. Hosp., Aarhus Univ. Hosp., Aarhus Univ., Aarhus Univ. Hosp.*
- 11:00 X1 **709.04** Effects of chronic mild social defeat stress on characteristics of behaviors and serum components in mice. T. GOTO*; Y. KUBOTA; Y. TANAKA; W. IIO; A. TOYODA. *Ibaraki Univ., Ibaraki Univ. Cooperation between Agr. and Med. Sci. (IUCAM), Tokyo Univ. of Agr. and Technol.*
- 8:00 X2 **709.05** Perinatal photoperiod affects the serotonergic system. N. H. GREEN*; C. JACKSON; D. MCMAHON. *Vanderbilt Univ., Vanderbilt Univ.*
- 9:00 X3 **709.06** Essential role of hippocampal SIRT1 in behavioral response to stress in mice. S. UCHIDA*; N. ABE-HIGUCHI; H. YAMAGATA; T. HOBARA; F. HIGUCHI; K. HARA; A. KOBAYASHI; Y. WATANABE. *Yamaguchi Univ.*
- 10:00 X4 **709.07** ● Ankyrin-3: Role in stress response and implications for mood disorders. A. LUONI*; R. MASSART; V. NIERATSKER; A. CATTANEO; F. CIRULLI; C. M. PARIANTE; M. SZYF; M. A. RIVA. *Univ. of Milan - DISFEB, McGill Univ., Univ. of Tuebingen, Central Inst. of Mental Health, Med. Fac. Mannheim/Heidelberg Univ., King's Col. London, Inst. of Psychiatry, Inst. di Ricovero e Cura a Carattere Scientifico San Giovanni di Dio, Fatebenefratelli Ctr., Inst. Superiore di Sanità.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 X5 **709.08** • Bone marrow derived leukocytes underlie susceptibility and resilience to social stress. G. E. HODES*; M. L. PFAU; M. C. LEBOEUF; S. A. GOLDEN; D. J. CHRISTOFFEL; M. HESHMATI; H. ALEYASIN; E. H. F. WONG; C. A. BOLAÑOS-GUZMÁN; M. MERAD; S. J. RUSSO. *Icahn Sch. of Med. at Mt. Sinai, Icahn Sch. of Med. at Mt. Sinai, AstraZeneca Pharmaceuticals, Florida State Univ.*
- 8:00 X6 **709.09** Adolescent social stress induces sex-specific effects on cocaine-elicited and anxiety-like behaviors in the adult mouse. D. M. WALKER*; M. A. DOYLE; E. J. HARRIGAN; H. M. CATES; G. E. HODES; P. J. KENNEDY; D. FERGUSON; B. LABONTE; H. SUN; J. RABKIN; E. J. NESTLER. *Mt Sinai Sch. of Med., The Univ. of California Los Angeles, Univ. of Arizona Med. Sch.*
- 9:00 X7 **709.10** Identification of novel circuits in the nucleus accumbens involving somatostatin interneurons and their role in cocaine induced plasticity. E. A. RIBEIRO*; J. KOO; B. JUAREZ; J. SCARPA; J. FENG; J. RABKIN; H. SUN; D. WALKER; H. CATES; M. DOYLE; E. MOUZON; M. HAN; E. J. NESTLER. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai.*
- 10:00 X8 **709.11** GluN2B-containing NMDA receptors regulate behavioral despair and the synaptic changes underlying ketamine's rapid antidepressant actions. O. H. MILLER*; L. YANG; B. J. HALL. *Tulane University, Neurosci. Program.*
- 11:00 X9 **709.12** Regulation of clock gene expression in the chronic mild stress model: Modulatory activity of the novel drug lurasidone. F. CALABRESE*; E. SAVINO; A. ROSSETTI; M. PAPP; R. MOLteni; M. RIVA. *Dept. of Pharmacol. and Biomolecular Sciences, Univ. of Milan, Inst. of Pharmacology, Polish Acad. of Sci.*
- 8:00 X10 **709.13** Gene expression change in the hippocampus of BALB/c mice after chronic ultra-mild stress. H. YAMAGATA*; T. HOBARA; S. UCHIDA; F. HIGUCHI; N. HIGUCHI; Y. WATANABE. *Yamaguchi Univ. Sch. of Med.*
- 9:00 X11 **709.14** Lateral habenula projections to a subset of ventral tegmental area neurons rapidly encodes for susceptibility to social defeat stress. D. CHAUDHURY*; H. ZHANG; B. JUAREZ; A. FRIEDMAN; S. KU; M. HAN. *Mount Sinai Sch. Of Med., Mount Sinai Sch. of Med.*
- 10:00 X12 **709.15** Translational psychiatry; findings from a rat model of the interaction between early life adversity and serotonin transporter gene variation. R. VAN DER DOELEN*; W. DESCHAMPS; I. A. ARNOLDUSSEN; C. D'ANNIBALE; F. CALABRESE; G. GUIDOTTI; D. PEETERS; B. GEENEN; R. A. WEVERS; M. A. RIVA; D. ZELENIA; J. R. HOMBERG; T. KOZICZ. *Radboudumc, Radboud Univ., Radboudumc, Univ. degli Studi di Milano, Univ. degli Studi di Milano, Inst. of Exptl. Med.*
- 11:00 X13 **709.16** Sex-selective effects of early life stress on depressive outcomes in mice: Continuous home cage video monitoring as a novel method to assess outcomes. K. G. BATH*; X. LI; T. SERRE. *Brown Univ., Brown Univ., Brown Univ.*
- 8:00 X14 **709.17** Cocaine regulates monoubiquitination of histones H2A and H2B. J. RABKIN*; H. SUN; E. S. CALIPARI; H. M. CATES; E. A. RIBEIRO; M. CAHILL; R. L. NEVE; E. J. NESTLER. *Fishberg Dept. of Neuroscience, Icahn Sch., MIT.*
- 9:00 X15 **709.18** Genome-wide brain gene network alterations in major depressive disorder. B. LABONTÉ*; I. PURUSHOTHAMAN; C. TAMMINGA; G. TURECKI; B. ZHANG; L. SHEN; E. NESTLER. *Icahn Sch. of Med. at Mount Sinai, UT Southwestern, McGill Univ., Icahn Sch. of Med. at Mount Sinai.*
- 10:00 X16 **709.19** Novel role of microtubules in the dysregulation of reward learning by cocaine. E. S. CALIPARI*; M. E. CAHILL; D. DAMEZ-WERNO; D. M. WALKER; J. A. LANDRY; Y. L. HURD; E. J. NESTLER. *Mount Sinai Sch. of Med.*
- 11:00 X17 **709.20** Gadd45b is a critical mediator of susceptibility in the social defeat model of depression. J. KOO*; J. FENG; B. LABONTÉ; E. RIBEIRO; R. NEVE; M. LOBO; E. NESTLER. *Mount Sinai Sch. of Med., MIT, Univ. of Maryland Sch. of Med.*
- 8:00 X18 **709.21** Circuit-wide transcriptional profiling in a mouse model of depression. R. C. BAGOT*; I. MAZE; I. PURUSHOTHAMAN; X. LIU; H. M. CATES; C. J. PEÑA; K. N. SCOBIE; H. SUN; D. DAMEZ-WERNO; L. SHEN; B. ZHANG; E. J. NESTLER. *Icahn Sch. of Med. At Mount Sinai, Rockefeller Univ., Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai.*
- 9:00 X19 **709.22** Early life stress alters gene expression and activity patterns in the mesolimbic dopamine system and enhances susceptibility to depression. C. J. PENA*; I. PURUSHOTHAMAN; A. K. FRIEDMAN; R. C. BAGOT; M. HAN; L. SHEN; E. J. NESTLER. *Icahn Sch. of Med. at Mount Sinai.*
- 10:00 X20 **709.23** Chronic social stress induces mitochondrial DNA mutation and mitochondrial dysfunction in mouse brains. K. DUAN*; X. LIU; T. NI; J. ZHU; Z. LI. *Natl. Inst. of Mental Hlth., Natl. Heart Lung and Blood Inst.*
- 11:00 X21 **709.24** The Rap1 small GTPase network regulates cocaine-mediated dendritic spine morphogenesis and behavioral reward. M. E. CAHILL*; H. SUN; R. C. BAGOT; J. KOO; R. NEVE; A. GANCARZ; G. L. SCHROEDER; D. M. DIETZ; E. J. NESTLER. *Icahn Sch. of Med. At Mount Sinai, McGovern Inst. for Neurosci. at MIT, Univ. at Buffalo, The State Univ. of New York.*
- 8:00 X22 **709.25** Buprenorphine produces antidepressant-like and anxiolytic responses in mice exposed to chronic models of depressive-like behavior. E. FALCON*; R. SWEENEY; R. LEON; J. JOCHEMS; O. BERTON; I. LUCKI. *Univ. of Pennsylvania.*
- 9:00 X23 **709.26** Female rats are resistant to the depressive behavioral effects induced by early maternal separation stress. J. J. DIMATELIS*; I. M. VERMEULEN; K. BUGARITH; D. J. STEIN; V. A. RUSSELL. *Univ. of Cape Town, Univ. of Cape Town, Univ. of Cape Town.*
- 10:00 X24 **709.27** Lentiviral vector system for potent gene expression in serotonergic neurons in rats and mice. K. NAGAYASU*; N. NISHITANI; N. ASAOKA; M. YAMASHIRO; H. SHIRAKAWA; T. NAKAGAWA; S. KASPAROV; S. KANEKO. *Grad. Sch. of Pharmaceut. Sciences, Osaka Univ., Grad. Sch. of Pharmaceut. Sciences, Kyoto Univ., Univ. of Bristol.*
- 11:00 Y1 **709.28** Effects of light on hypothalamic dopaminergic neurons in an animal model of SAD. S. P. DEATS*; L. YAN. *Michigan State Univ., Michigan State Univ.*
- 8:00 Y2 **709.29** • Role of p11 in lateral habenula: Regulation of depression-like behavior. J. SEO*; Y. KIM; P. GREENGARD. *Rockefeller Univ.*

9:00 Y3 **709.30** Forced swim test modifies the expression of PKA and CREB in the hippocampus and prefrontal cortex of ovariectomized rats. E. M. ESTRADA*; M. CILIA GARCIA; A. HERNÁNDEZ MELESIO; N. VEGA RIVERA. *Inst. Natl. Psiquiatria.*

POSTER

710. Mood Disorders Animal Models II

Theme C: Disorders of the Nervous System

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

8:00 Y4 **710.01** Effect of manganese exposure on rat emotional behavior and brain morphology. T. BIKASHVILI*; L. GELAZONIA; I. LAZRISHVILI. *I.Beritashvili Ctr. of Exptl. Biomedicine, I.Beritashvili Ctr. of Exptl. Biomedicine.*

9:00 Y5 **710.02** Decreased phosphorylation of GluA1 in the hippocampus is associated with depressive-like behavior induced by dietary zinc restriction. U. DOBOSZEWSKA; A. PILC*; B. SZEWCZYK; B. POCHWAT; M. HOŁUJ; G. NOWAK. *Inst. of Pharmacol., Inst. of Pharmacol.*

10:00 Y6 **710.03** Upregulation of CaMKII β by HDAC inhibitors might be involved in structural plasticity and behavioral responses in model mouse of depression. T. HOBARA*; S. UCHIDA; F. HIGUCHI; N. HIGUCHI; H. YAMAGATA; Y. WATANABE. *Dept Neurosci, Yamaguchi Univ. Sch. of Med.*

11:00 Y7 **710.04** Structural abnormalities of the nodes of Ranvier by exposed repeated stressful events is associated with the onset of major depressive disorder. S. MIYATA*; S. SHIMIZU; T. TANAKA; M. TOHYAMA. *Kinki Univ/ Res. Ins Trad Asian Med.*

8:00 Y8 **710.05** Sex chromosome complement regulates expression of mood-related genes. M. L. SENEY*; K. EKONG; Y. DING; G. TSENG; E. SIBILLE. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

9:00 Y9 **710.06** Identifying the most effective component of a novel herbal treatment for depression and anxiety disorders: Neuronal and behavioral effects in a mice model of unpredictable chronic mild stress. R. DORON*; S. FIDELMAN; M. BLONDER; M. FRANKO; S. ARMOZA; M. REHAVI. *The Academic Col. Tel Aviv Jaffa/The Open Univ., The Open Univ., Hadassah Col., The Academic Col. Tel Aviv Jaffa, Tel-Aviv Univ.*

10:00 Y10 **710.07** ● Fibroblast growth factor 9 is a novel angiogenic and pro-depressant agent in the hippocampus. E. L. AURBACH*; E. INUI; C. A. TURNER; M. H. HAGENAUER; K. E. PRATER; W. E. BUNNEY; R. M. MYERS; J. D. BARCHAS; A. SCHATZBERG; S. J. WATSON; H. AKIL. *MBNI, Univ. of Michigan, Univ. of California, Irvine, HudsonAlpha Inst. for Biotech., Cornell Univ., Stanford Univ.*

11:00 Y11 **710.08** Perineuronal nets in prelimbic cortex protect the rats from chronic stress induced depression-like behavior. J. SHI*; N. CHEN; D. HU; Y. XUE; W. ZHU; L. LU. *Natl. Inst. On Drug Dependence of Peking Univ.*

8:00 Y12 **710.09** Leptin receptor antagonist administration elicits obesity phenotype in the absence of neurobehavioral changes. M. VAZQUEZ*; V. A. MACHT; A. L. BUMGARDNER; C. A. GRILLO; K. F. KAIGLER; R. T. ENOS; J. L. MCCLELLAN; T. L. CRANFORD; E. A. MURPHY; M. A. WILSON; A. GERTLER; L. P. REAGAN. *USC Sch. of Med., USC Sch. of Med., WJB Dorn VA Med. Ctr., The Hebrew Univ.*

9:00 Y13 **710.10** Stress and FGF2 interact to modulate anxiety-like behavior and hippocampal mTOR signaling. E. K. HEBDA-BAUER*; L. A. DOKAS; Q. WEI; S. J. WATSON; H. AKIL. *Univ. Michigan.*

10:00 Y14 **710.11** A prison for the mind: Neuronal plasticity in depressive-like states. D. RIGA*; P. VAN BOKHOVEN; J. E. VAN DER HARST; T. S. HEISTEK; P. VAN NIEROP; R. C. VAN DER SCHORS; J. A. TIMMERMAN; A. W. PIENEMAN; Y. VAN MOURIK; A. N. M. SCHOFFELMEER; H. D. MANSVELDER; W. J. G. HOOGENDIJK; A. B. SMIT; S. SPIJKER. *CNCR, NCA, Vrije Univ., Delta Phenomics, CNCR, NCA, Vrije Univ., NCA, VU Med. Ctr., Erasmus Med. Ctr.*

11:00 Y15 **710.12** ▲ Alterations of fluoxetine efficacy in forced swim test behavior between differentially reared male rats. C. J. PETERSON*; D. ARNDT; R. TURNER; M. E. CAIN. *Kansas State Univ., Kansas State Univ.*

8:00 Y16 **710.13** KCNQ3 channel regulation in the VTA mediates social avoidance behavior in response to chronic social defeat stress. A. K. FRIEDMAN*; J. J. WALSH; B. JUAREZ; S. M. KU; D. DIETZ; M. RIBADENEIRA; E. WONG; R. NEVE; M. HAN. *Mount Sinai Sch. of Med., Mount Sinai, Astrazeneca, McGovern Inst. for Brain Res.*

9:00 Y17 **710.14** Preclinical model of depression with recurrent episodes: Search for mechanisms of cyclicity. K. A. LEBEDEVA*; E. FENTON; R. BOWEN; H. CARUNCHO; L. KALYNCHUK. *Univ. of Saskatchewan, Univ. of Saskatchewan, Univ. of Saskatchewan, Univ. of Saskatchewan.*

10:00 Y18 **710.15** Ultrasonic vocalizations during intermittent swim stress forecast resilience to stress-induced social anxiety. R. C. DRUGAN*; A. JONES; N. P. STAFFORD. *Univ. New Hampshire, Univ. of New Hampshire.*

11:00 Y19 **710.16** Nucleus accumbens projection neuron subtypes mediate depression-related outcomes to social defeat stress. T. C. FRANCIS*; R. CHANDRA; D. M. FRIEND; E. FINKEL; G. DAYRIT; J. MIRANDA; J. M. BROOKS; S. D. IÑIGUEZ; P. O'DONNELL; A. KRAVITZ; M. LOBO. *Univ. of Maryland, Baltimore, Natl. Inst. of Diabetes and Digestive and Kidney Dis., California State University, San Bernardino, Univ. Nacional Autónoma de México.*

8:00 Y20 **710.17** Kynurenic acid disrupts stress-induced dopamine response in the rat prefrontal cortex following prolonged reduction of glucocorticoid formation. H. WU*; F. M. NOTARANGELO; J. I. KOENIG; R. SCHWARCZ. *Maryland Psych Res. Ctr, Univ. Maryland Sch. Med.*

9:00 Y21 **710.18** Deep brain stimulation in thalamic reticular nucleus promotes hippocampal neurogenesis and induces antidepressant-like effect. V. M. MAGDALENO-MADRIGAL*; C. R. PANTÓJA-JIMÉNEZ; F. ARREDONDO; L. ORTÍZ; R. FERNÁNDEZ-MAS; S. ALMAZÁN-ALVARADO; G. B. RAMÍREZ-RODRIGUEZ. *Inst. Nacional De Psiquiatria Ramón De La Fuente Muñiz, Inst. Nacional De Psiquiatria Ramón De La Fuente Muñiz.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 Y22 **710.19** Optogenetic modulation of the prefrontocortical-dorsal raphe microcircuit bidirectionally biases socioaffective decisions after social defeat. C. CHALLIS*; C. MIN; S. G. BECK; O. BERTON. *Univ. of Pennsylvania, Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*
- 11:00 Y23 **710.20** Taurine increases the $\alpha 2$ GABAA receptor subunit and the brain-derived neurotrophic factor (BDNF) mRNA expression in the hippocampus of diabetic rats. R. GOMEZ*; G. CALETTI; F. B. ALMEIDA; T. L. B. DE MELO; G. N. CINTRA; G. AGNES; M. S. NIN; H. M. T. BARROS. *Univ. Federal Do Rio Grande Do Sul - UFRGS, Univ. Federal de Ciências da Saúde de Porto Alegre, Ctr. Universitário Metodista do IPA.*
- 8:00 Y24 **710.21** Anxiety level following food restriction predicts hyperactivity in adolescent female mice undergoing activity-based anorexia. G. S. WABLE*; J. MIN; Y. CHEN; C. AOKI. *New York Univ.*
- 9:00 Y25 **710.22** Differences in antidepressant drug sensitivity in inbred strains in the chick anxiety-depression model. S. W. WHITE*; K. J. SUFKA. *Univ. of Mississippi, Univ. of Mississippi.*
- 10:00 Y26 **710.23** Stress-induced alterations in neural responses following hindlimb electrical stimulation of rat. S. LEE*; H. PARK; M. SHIN; J. MIN; S. LEE; Y. LEE; E. BAEG; Y. LEE; M. SUH. *Inst. for Basic Science, Sungkyunkwan Univ., Dept. of Biol. Sciences, Sungkyunkwan Univ.*
- 11:00 Y27 **710.24** The single prolonged stress (SPS) model of posttraumatic stress disorder (PTSD) induces a PTSD-like phenotype in male rats but a depressive-like phenotype in female rats. A. POOLEY*; A. J. ROBISON; M. S. MAZEI-ROBISON; A. L. EAGLE; S. M. BREEDLOVE; C. L. JORDAN. *Michigan State Univ.*
- 8:00 Y28 **710.25** Reduced expression of RalBP1 decreases behavioral despair in mice. S. H. YOON*; Y. BAE; K. PARK; M. KIM. *Seoul Natl. Univ. Col. of Med.*
- 9:00 Y29 **710.26** Melanocortin-5 receptor control of depressive behavior and brain mRNA expression in mice. J. L. SHANNONHOUSE*; A. V. MAYOROV; D. C. YORK; V. J. HRUBY; C. MORGAN. *Texas A&M Univ., Univ. of Arizona, Weill Cornell Med. Col., Texas A&M Univ.*
- 10:00 Y32 **711.03** Role of the ventral tegmental area for sex-difference effects of social stress: Importance of topographical specificity, stressor predictability and interactions with nonapeptide systems. G. GREENBERG*; M. Q. STEINMAN; I. E. DOIG; S. P. YEH; B. C. TRAINOR. *UC Davis Dept. of Psychology, UC Davis Dept. of Psychology.*
- 11:00 Z1 **711.04** Defeat stress induces sex-specific changes in neuropeptide receptor expression in the nucleus accumbens. N. C. DUQUE; M. Q. STEINMAN; R. HAO; K. L. CAMPI; G. D. GREENBERG; S. A. LAREDO; K. L. BALES; B. C. TRAINOR*. *Univ. of California -Davis, Univ. of California -Davis.*
- 8:00 Z2 **711.05** Rapid antidepressant action of an alpha5 selective benzodiazepine partial inverse agonist: Restoration of excitatory synaptic strength. J. M. FISCHER; T. A. LEGATES; M. D. KVARTA; A. M. VAN DYKE; S. M. THOMPSON*. *Univ. Maryland Baltimore Sch. Med.*
- 9:00 Z3 **711.06** Early life exercise produces persistent neuroplastic changes within limbic regions involved in stress resistance. A. MIKA*; K. A. HULEN; C. A. BOUCHET; N. L. RUMIAN; A. K. HILLS; M. KEAG; D. BORCHERT; B. N. GREENWOOD; M. FLESHNER. *Univ. of Colorado, Boulder, Univ. of Colorado, Denver.*
- 10:00 Z4 **711.07** Involvement of the CB1 cannabinoid receptor in the cognitive deficits associated with nicotine withdrawal. R. SARAVIA*; Á. FLORES; A. PLAZA-ZABALA; A. BUSQUETS-GARCÍA; A. PASTOR; R. DE LA TORRE; A. OZAITA; R. MALDONADO; F. BERRENDERO. *Univ. Pompeu Fabra - PRBB, Univ. Pompeu Fabra, IMIM-Hospital del Mar research institute.*
- 11:00 Z5 **711.08** The effects of chronic fluoxetine administration on affective and neuroimmune changes associated with LPS-induced sepsis in mice. S. T. ANDERSON*; S. COMMINS; A. N. COOGAN. *Natl. Univ. of Ireland, Maynooth.*
- 8:00 Z6 **711.09** Glial dysfunction in the mouse habenula causes depressive behaviors and sleep disturbance. W. CUI*; H. MIZUKAMI; M. YANAGISAWA; T. AIDA; M. NOMURA; Y. ISOMURA; R. TAKAYANAGI; K. OZAWA; K. TANAKA; H. AIZAWA. *Tokyo Med. and Dent. Univ., Jichi Med. Univ., Kyushu Univ., Tamagawa Univ., Japan Sci. and Technol. Agency, Tokyo Med. and Dent. Univ.*
- 9:00 Z7 **711.10** Enhanced adult hippocampal neurogenesis via regulation of perforant path activity: A novel treatment for stress-induced depression? S. YUN*; S. MUKHERJEE; C. E. KANG; B. L. ROTH; Y. HAN; D. M. CHETKOVICH; A. J. EISCH. *UT Southwestern Med. Ctr., Northwestern Univ., Univ. of North Carolina.*
- 10:00 Z8 **711.11** Development of the rat depression model related to selective white matter injury. H. ONO*; H. IMAI; S. MIYAWAKI; S. MIYATA; H. NAKATOMI; M. MIKUNI; M. FUKUDA; N. SAITO. *Dept. of Neurosurgery, Grad. Sch. of Medicine, The Univ. of Tokyo, Dept. of Psychiatry and Neuroscience, Gunma Univ.*
- 11:00 Z9 **711.12** PACAP transgenic mice in the three hit model of depression: The involvement of BNST - CRF, cpEW - Urocortin1 and DR - serotonin. B. GASZNER*; L. KOVÁCS; T. GASZNER; L. GÁSPÁR; D. REGLÖDI; K. LÖRINCZ; J. FARKAS; H. HASHIMOTO; V. KORMOS. *Univ. of Pecs, PACAP "Lendület" research group, Lab. of Mol. Neuropharmacology, Grad. Sch. of Pharmaceutical Sciences, Osaka Univ., Dept. of Pharmacol. and Pharmacotherapy, Dept. of Anat.*

POSTER

711. Mood Disorders Animal Models III

Theme C: Disorders of the Nervous System

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

- 8:00 Y30 **711.01** Elevated corticosterone mediates the behavioral and neurobiological effects of chronic stress at rat hippocampal temporoammonic-CA1 synapses. M. D. KVARTA*; K. E. BRADBROOK; H. M. DANTRASSY; A. M. BAILEY; S. M. THOMPSON. *Univ. of Maryland Sch. of Med., St. Mary's Col. of Maryland.*
- 9:00 Y31 **711.02** ▲ Role of suprachiasmatic nucleus (SCN) neuronal firing in mood-related behaviors. H. ZHANG*; M. M. SIDOR; R. W. LOGAN; C. A. MCCLUNG. *Univ. of Pittsburgh Sch. of Med., Tsinghua Univ.*
- 10:00 Z8 **711.11** Development of the rat depression model related to selective white matter injury. H. ONO*; H. IMAI; S. MIYAWAKI; S. MIYATA; H. NAKATOMI; M. MIKUNI; M. FUKUDA; N. SAITO. *Dept. of Neurosurgery, Grad. Sch. of Medicine, The Univ. of Tokyo, Dept. of Psychiatry and Neuroscience, Gunma Univ.*
- 11:00 Z9 **711.12** PACAP transgenic mice in the three hit model of depression: The involvement of BNST - CRF, cpEW - Urocortin1 and DR - serotonin. B. GASZNER*; L. KOVÁCS; T. GASZNER; L. GÁSPÁR; D. REGLÖDI; K. LÖRINCZ; J. FARKAS; H. HASHIMOTO; V. KORMOS. *Univ. of Pecs, PACAP "Lendület" research group, Lab. of Mol. Neuropharmacology, Grad. Sch. of Pharmaceutical Sciences, Osaka Univ., Dept. of Pharmacol. and Pharmacotherapy, Dept. of Anat.*

- 8:00 Z10 **711.13** Infralimbic prefrontal cortex modulation of dopaminergic system function in chronic mild stress model of depression. J. L. MOREINES*; Z. L. OWRUTSKY; A. A. GRACE. *Univ. of Pittsburgh, Univ. of Pittsburgh Sch. of Med.*
- 9:00 Z11 **711.14** ▲ Voluntary exercise prevents reductions of mTOR mRNA in the prefrontal cortex and hippocampus following exposure to uncontrollable stress. J. BURNS; C. A. BOUCHET; P. R. GHASEM; P. J. CLARK; J. J. HERRERA; E. A. SISNEROS; A. MIKA; M. FLESHNER; B. N. GREENWOOD*. *Univ. Colorado Denver, Univ. of Colorado Boulder.*
- 10:00 Z12 **711.15** Chronic fluoxetine treatment blocks synaptic potentiation of the Temporoammonic-CA1 synapses in the hippocampus. A. M. VAN DYKE*; T. C. FRANCIS; H. CHEN; A. J. KALLARACKAL; X. CAI; S. M. THOMPSON. *Univ. of Maryland, Baltimore.*
- 11:00 Z13 **711.16** Direct versus indirect modulation of the nucleus accumbens by serotonin signaling. T. A. LEGATES*; S. M. THOMPSON. *Univ. of Maryland Sch. of Med.*
- 8:00 Z14 **711.17** Exercise reward is independent of exercise controllability and involves the nigrostriatal dopamine pathway. C. A. BOUCHET*; J. J. HERRERA; P. R. GHASEM; S. M. ENGEL; T. WIEMAN; J. BURNS; P. CLARK; M. FLESHNER; B. N. GREENWOOD. *Univ. of Colorado, Univ. of Colorado, Univ. of Colorado.*
- 9:00 Z15 **711.18** ● Acute stress rapidly increases the readily releasable pool of glutamate vesicles in prefrontal and frontal cortex through non-genomic action of corticosterone. M. POPOLI*; L. MUSAZZI; G. TRECCANI; C. PEREGO; N. NAVA; M. MILANESE; T. BONIFACINO; J. LAMANNA; A. MALGAROLI; J. R. NYENGAARD; G. WEGENER; F. DRAGO; G. RACAGNI; G. BONANNO. *Lab. Neuropsychopharmacol Funct Neurogenomics-University of Milano, Lab. of Cell Physiol., Aarhus Univ., Univ. di Genova, Scientific Inst. San Raffaele and Univ. Vita e Salute San Raffaele, Milano, Aarhus Univ., Univ. of Catania.*
- 10:00 Z16 **711.19** Sex differences in compulsive and affective functions in a non-induced compulsive-like mouse model. S. MITRA*; C. P. BASTOS; A. BULT-ITO. *Univ. of Alaska Fairbanks, Federal Univ. of Minas Gerais, Univ. of Alaska Fairbanks.*
- 11:00 Z17 **711.20** ▲ Dietary prebiotics increase Bifidobacterium spp. and Lactobacillus spp. in the gut and promote stress resistance. N. L. RUMIAN*; A. MIKA; B. N. GREENWOOD; H. E. DAY; D. BORCHERT; M. M. PATON; M. CHICHLAWSKI; B. M. BERG; M. FLESHNER. *Univ. of Colorado Boulder, Univ. of Colorado Denver, Ctr. for Neurosci., Mead Johnson Pediatric Nutr. Inst.*
- 8:00 Z18 **711.21** Developmental delay in serotonin transporter deficient rats. Y. KROEZE*; S. JANSSEN; B. DIRVEN; H. ZHOU; J. HOMBERG. *Radboud Univ. Nijmegen Med. Ctr., Fac. of Science, Radboud Univ. Nijmegen, Radboud Inst. for Mol. Life Sci.*
- 9:00 Z19 **711.22** The genetic deletion of adenosine A2A receptors selectively from amygdala neurons prevents mood-related modifications in rats subjected to repeated restraint stress. N. GONCALVES*; N. M. MACHADO; C. M. SOUZA; A. P. SIMÕES; R. A. CUNHA. *CNC - Ctr. For Neurosci. and Cell Biology, Un, Fac. of Medicine, Univ. of Coimbra.*
- 10:00 Z20 **711.23** Multi-nutrient experimental diet increases stress-protective gut bacteria, improves early life NREM sleep architecture, and enhances REM sleep rebound following an acute stressor. R. S. THOMPSON*; A. MIKA; R. ROLLER; B. N. GREENWOOD; M. CHICHLAWSKI; B. M. BERG; M. FLESHNER. *Univ. Colorado Boul, Mead Johnson Pediatric Nutr. Inst.*
- 11:00 Z21 **711.24** Chronic mild stress induces depression-like symptoms in high anxiety female rats: Differential fos and 5HT1A expression. R. LOTT*; M. SWEENEY; B. MASON; R. MEJIA; S. T. DONALDSON. *Univ. of Massachusetts Boston.*
- 8:00 Z22 **711.25** Serum microvesicles as potential biomarkers for psychiatric diseases. C. GOMEZ-MOLINA; E. AMPUERO*; A. LUARTE; U. WYNEKEN. *Univ. de los Andes, Univ. Andrés Bello.*
- 9:00 Z23 **711.26** Klf9 is a novel transcriptional regulator of resilience to chronic stress. A. BESNARD; T. LANGBERG*; S. LEVINSON; K. M. SCOBIE; E. D. LEONARDO; R. HEN; A. SAHAY. *Massachusetts Gen. Hosp., Harvard Med. Sch., Icahn Sch. of Med. at Mount Sinai, Columbia Univ., Massachusetts Gen. Hosp., Massachusetts Gen. Hosp., Harvard Stem Cell Inst.*
- 10:00 Z24 **711.27** Validation of adolescent chronic restraint stress as a model of depression in adult female Sprague Dawley rats. M. HIBICKE; R. L. HAYSLETT*. *Mercer Univ. Coll Pharma.*
- 11:00 Z25 **711.28** ● Aging an corticosterone administration differently alter mouse emotionality and gene expression in the dentate gyrus. J. GUILLOUX*; D. FELICE; Y. LI; A. L. PEHRSON; I. MENDEZ-DAVID; A. M. GARDIER; C. SANCHEZ; D. J. P. DAVID. *Univ. Paris Sud, EA3544, Faculté De Pharmacie, Lundbeck Res. USA.*

POSTER

712. Alcohol: Developmental Effects

Theme C: Disorders of the Nervous System

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

- 8:00 Z26 **712.01** Immediate and long-term impact of developmental alcohol exposure on BDNF and TRKB in the frontal cortex. K. J. CRISS; V. S. PALAMARCHOUK; K. E. BOSCHEN; A. Y. KLINTSOVA*. *Univ. of Delaware, Univ. of Delaware.*
- 9:00 Z27 **712.02** Moderate *in utero* alcohol exposure results in sex-dependent inflammation in the developing rat brain. R. DIMATTEO*; J. M. SCHWARZ. *Univ. of Delaware.*
- 10:00 Z28 **712.03** The effects of pre-pregnancy maternal alcohol exposure in female rats on hypothalamic-pituitary-adrenal axis function in offspring. L. G. CHASTAIN*; S. JABBAR; M. A. CABRERA; D. K. SARKAR. *Rutgers, The State Univ. of New Jersey.*
- 11:00 Z29 **712.04** Effects of developmental ethanol exposures in wildtype and p53-null mice on transcriptional and epigenetic regulation of DNA damage, DNA repair, cell cycle, and cell death processes. F. A. MIDDLETON*; M. CAMARGO; C. IGNACIO; S. HICKS; S. MOONEY. *SUNY Upstate Med. Univ., Univ. of Maryland Sch. of Med.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 Z30 **712.05** A comparative transcriptomic study of mouse embryonic neural stem cell differentiation under ethanol treatment. C. MANDAL; J. PARK; M. CHOI; S. KIM; K. PARK; J. CHAI; Y. LEE; K. JUNG; Y. CHAI*. *Hanyang Univ.*
- 9:00 Z31 **712.06** Effects of a single intoxication event on striatal medium spiny neuron morphology during the early postnatal period in mice. T. WESTON; C. LOWERS; A. BAMFO; J. SOKOLOWSKI; E. B. CLABOUGH*. *Randolph-Macon Col., Univ. of Virginia.*
- 10:00 Z32 **712.07** Resting state functional connectivity of male and female long-evans rats is altered as a result of moderate prenatal ethanol exposure. C. I. RODRIGUEZ*; S. DAVIES; V. CALHOUN; D. SAVAGE; D. HAMILTON. *The Univ. of New Mexico, The Univ. of New Mexico, The Mind Res. Network, The Univ. of New Mexico.*
- 11:00 Z33 **712.08** Exposure to alcohol and alterations in the miRNA network in the human fetal brain in early and mid-gestation. N. DARBINIAN*; K. I. MUHAMMAD; N. MERABOVA; G. TATEVOSIAN; M. SELZER; L. GOETZL. *Temple Univ. Sch. of Med.*
- 8:00 Z34 **712.09** Cytokine and chemokine expression and microglial activation induced by ethanol in a mouse model of FASD are prevented by the PPAR-gamma agonist pioglitazone. C. J. KANE*; J. W. JOHNSON; J. C. DOUGLAS; K. D. PHELAN; P. D. DREW. *Univ. Arkansas Med. Sci.*
- 9:00 Z35 **712.10** NMDA receptor downstream signaling in the dorsal hippocampus of trace fear conditioned adult rats exposed to ethanol in early postnatal life. M. J. GOODFELLOW*; J. M. POCHIRO; D. H. LINDQUIST. *The Ohio State Univ., The Ohio State Univ.*
- 10:00 Z36 **712.11** The actions of alcohol on electrophysiological properties of gabaergic and putative serotonergic neurons in the dorsal raphe of developing mice. R. A. MORTON*; Y. YANAGAWA; F. C. VALENZUELA. *Univ. of New Mexico, Gunma Univ. Grad. Sch. of Med.*
- 11:00 AA1 **712.12** Possible contributions of GABAA and Kappa Opioid Receptor in transgenerational effects of prenatal ethanol exposure. D. O. POPOOLA*; M. E. NIZHNIKOV; N. E. SPEAR; N. M. CAMERON. *Binghamton Univ., State Univ. of New York (SUNY).*
- 8:00 AA2 **712.13** Immediate and long-term impact of developmental alcohol exposure on BDNF gene expression and protein in the hippocampus. K. E. BOSCHEN*; V. PALAMARCHOUK; K. J. CRISS; T. L. ROTH; A. Y. KLINTSOVA. *Univ. of Delaware.*
- 9:00 AA3 **712.14** Gestational alcohol exposure dysregulates fetal brain iron homeostasis under maternal iron sufficiency and deficiency. S. M. HUEBNER; P. D. DREW*; S. M. SMITH. *Univ. of Wisconsin-Madison, Univ. Arkansas Med. Sci.*
- 10:00 AA4 **712.15** ▲ Bumetanide mitigates ethanol-induced aberrant migration of MGE-derived GABAergic interneurons in mouse embryonic dorsomedial telencephalon. J. T. WEISS; A. G. J. SKORPUT; N. M. SIMINERI; J. C. FAN; P. W. YEH; H. H. YEH*. *Geisel Sch. of Med. at Dartmouth.*
- 11:00 AA5 **712.16** Paternal preconception alcohol exposure: Is there a risk to offspring? A. F. HARKER*; S. RAZA; M. BEXTE; B. KOLB; R. GIBB. *Univ. of Lethbridge.*
- 8:00 AA6 **712.17** Binge-like alcohol exposure early in gestation differentially alters stress reactivity in adult male and female mice. L. A. WIECZOREK*; E. W. FISH; S. E. PARNELL; K. K. SULIK. *Univ. of North Carolina Chapel Hill, Bowles Ctr. for Alcohol Studies.*
- 9:00 AA7 **712.18** Binge alcohol consumption causes alteration of gene expressions in the developing fetal brain. K. JUNG*; C. MANDAL; J. PARK; H. LEE; S. KIM; K. PARK; Y. CHAI. *Hanyang Univ.*
- 10:00 AA8 **712.19** *In utero* ethanol exposure alters MGE-derived interneuron distribution and inhibitory/excitatory balance in layer 5 pyramidal neurons of the mPFC. A. G. SKORPUT*; P. W. L. YEH; H. H. YEH. *Geisel school of medicine at Dartmouth.*
- 11:00 AA9 **712.20** Enhanced NMDA-GluN2B subunit expression in rat ventrolateral frontal cortex following moderate prenatal ethanol exposure. C. W. BIRD*; F. CANDELARIA-COOK; C. MAGCALAS; S. DAVIES; D. SAVAGE; F. VALENZUELA; D. HAMILTON. *Univ. New Mexico, Univ. of New Mexico Hlth. Sci. Ctr.*
- 8:00 AA10 **712.21** Opioid agonist and ethanol induce microglial activation via TLR-2/4 mediation and promotes cytokines induced neurotoxicity in hypothalamic microglial culture. P. SHRIVASTAVA; D. K. SARKAR*. *Rutgers, SUNJ.*
- 9:00 AA11 **712.22** Dysregulation of ILK signalling is associated with hippocampal based memory and synaptic plasticity in FASD rat model. D. BHATTACHARYA*; E. DUNAWAY; J. BLOEMER; S. BHATTACHARYA; M. BUABEID; M. ESCOBAR; V. SUPPIRAMANIAM; M. DHANASEKARAN. *Auburn Univ.*

POSTER

713. Drug Discovery and Delivery

Theme C: Disorders of the Nervous System

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

- 8:00 AA12 **713.01** ● Recombinant human serum albumin fused with human butyrylcholinesterase (TV-1380) as a bioscavenger of organophosphorus nerve agents. M. M. SEAVEY*; D. M. CERASOLI; C. L. CADIEUX; M. V. BOERI; S. M. HODGINS; C. A. HOFSTETTER; S. A. KASTEN; T. C. OTTO; H. HALLAK; L. DARVISH; A. GROSS; S. CLARK; M. SINGH; J. BOCK; J. SHAW; M. BASSAN; R. ELIAZ; A. ORBACH. *Teva Pharmaceuticals USA, United States Army Med. Res. Inst. of Chem. Def. (USAMRICD), Teva Pharmaceut. Industries, Ltd, Teva Biopharmaceuticals, Teva Specialty Medicines.*
- 9:00 AA13 **713.02** ● Development of new peptide vector family, Transcend (melanotransferrin-MTf, p97) first and second generation, for the delivery of biologics across the Blood-Brain Barrier in the brain. R. GABATHULER*; M. TIAN; T. ABRAHAM; M. I. NOUNOU; P. R. LOCKMAN; W. JEFFERIES. *Bioasis Technologies Inc., Penn State Univ., Alexandria Univ., West Virginia Univ., Univ. of British Columbia.*
- 10:00 AA14 **713.03** ● *In vitro* characterization of LY3020371, a potent and selective mGlu2/3 receptor antagonist. J. A. MONN*; J. M. WITKIN; P. L. ORNSTEIN; C. H. MITCH; R. LI; S. C. SMITH; X. WANG; C. XIANG; J. H. CARTER; J. WANG; S. ATWELL; F. PASQUI; S. M. FITZJOHN; B. A. HEINZ. *Eli Lilly & Co., Eli Lilly & Co., Eli Lilly & Co.*

- 11:00 AA15 **713.04** Vascular targeting for new treatment of brain arteriovenous malformation. S. UGOYA*; Z. ZHAO; M. STOODLEY. *Australian Sch. of Advanced Med., Macquarie Univ.*
- 8:00 AA16 **713.05** ● Careful consideration of the difference in comedication can substantially improve success in CNS clinical trials. H. A. GEERTS*; A. SPIROS. *In Silico Biosci., In Silico Biosci.*
- 9:00 AA17 **713.06** ● Characterization of binding and inhibitory properties of TAK-063, a novel PDE10A inhibitor. A. HARADA*; K. SUZUKI; J. KUNITOMO; N. KAMIGUCHI; M. MIYAMOTO; K. TOHYAMA; K. NAKASHIMA; T. TANIGUCHI; H. KIMURA. *Takeda Pharmaceut. Co.*
- 10:00 AA18 **713.07** Pharmacological characterization and SAR studies of small molecular agonists for GPR88. C. JIN*; A. M. DECKER; X. HUANG; B. P. GILMOUR; B. E. BLOUGH; B. L. ROTH. *Res. Triangle Inst., Univ. of North Carolina Sch. of Med.*
- 11:00 AA19 **713.08** ● Design and synthesis of TAK-063, a novel phosphodiesterase 10A (PDE10A) inhibitor for the treatment of schizophrenia. J. KUNITOMO*; M. FUSHIMI; M. YOSHIKAWA; A. KAWADA; T. HASUI; T. HITAKA; H. OKI; Y. HAYANO; H. KOKUBO; K. NAKASHIMA; M. KONDO; K. SUZUKI; H. KIMURA; T. TANIGUCHI. *Takeda Pharmaceut. Co. Limited.*
- 8:00 AA20 **713.09** Encapsulated cell transplantation for central nervous system disorders. T. YASUHARA*; M. KAMEDA; T. AGARI; A. TOYOSHIMA; H. TAKEUCHI; J. MORIMOTO; A. KONDO; A. SHINKO; S. SASADA; T. SASAKI; T. WAKAMORI; M. OKAZAKI; I. DATE. *Okayama Univ. Grad Sch. of Med.*
- 9:00 AA21 **713.10** ● LY3020371 is a potent and selective competitive antagonist of mglu2/3 receptors *in vivo*. J. M. WITKIN*; C. OVERSHINER; X. LI; G. GILMOUR; J. LI; L. RORICK-KEHN; K. RASMUSSEN; B. JOHNSON; S. N. MITCHELL; D. MCKINZIE; A. NIKOLAYEV; V. TOLSTIKOV; M. KUO; P. ORNSTEIN; C. MITCH; R. LI; S. SMITH; X. WANG; B. HEINZ; D. ALLEN; S. SWANSON; J. MONN. *Lilly Co Ctr., Eli Lilly and Co., Eli Lilly and Co.*
- 10:00 AA22 **713.11** ● *In vivo* pharmacological properties of TAK-063, a potent and selective phosphodiesterase 10A inhibitor under investigation as a novel treatment for schizophrenia. K. SUZUKI*; A. HARADA; E. SHIRAISHI; T. TANIGUCHI; H. KIMURA. *Takeda Pharmaceut. Co. Ltd.*
- 11:00 AA23 **713.12** ● Rabies glycoprotein derived peptide shows higher capacity for delivery model-protein GFP than tetanus toxin fragment C, Tat, and Tet-1. N. MELLO*; P. GRAMLICH; M. REMMINGTON; P. FISMAN. *Univ. of Maryland-Baltimore, Johns Hopkins Univ., VA Hospital-Baltimore.*
- 8:00 AA24 **713.13** Long-term treatment with thymosin β 4 improves functional recovery of diabetic peripheral neuropathy. X. LU*; Z. ZHANG; M. CHOP; L. JIA; A. SZALAD; L. WANG. *Henry Ford Hosp.*
- 9:00 BB1 **713.14** Neurochemical changes in the mouse hippocampus underlying the antidepressant effect of genetic deletion of P2X7 receptors. B. SPERLAGH*; C. CSÖLLE; M. BARANYI; F. GÖLÖNCSE; L. OTROKOCSE; A. KITTEL. *Inst. of Exptl. Med.*
- 10:00 BB2 **713.15** ● Creation of brain-penetrant iduronidase by conjugation with Angiopeps and demonstration of brain enzyme activity in a mouse model of MPSI. J. E. LACHOWICZ*; M. DEMEULE; A. REGINA; S. DAS; K. MOKTEFI; A. LAROCQUE; D. BOIVIN; S. LORD-DUFOUR; J. CASTAIGNE. *Angiochem, Inc.*
- 11:00 BB3 **713.16** Interaction between TRPC6 channels and FKBP52 - Implications for the pathophysiology of mood disorders. L. YE; F. HAUSCH; K. LEUNER*. *FAU Erlangen/Nuremberg, Max Planck Inst. for Psychiatry, FAU Erlangen Nuremberg.*
- 8:00 BB4 **713.17** Cerebrospinal fluid sampling after intranasal administration of kyotorphin alters brain concentrations in rats. A. L. SVITAK*; S. V. DHURIA; W. H. FREY, 2nd; L. R. HANSON. *Healthpartners Ctr. For Memory and Aging.*
- 9:00 BB5 **713.18** Rapid intranasal brain delivery of pralidoxime as a countermeasure against nerve agent poisoning. A. NAMBOODIRI*; J. K. S. KRISHNAN; A. PEETHAMBARAN; J. R. MOFFETT; W. H. FREY, II. *USUHS, Alzheimer's Res. Ctr. at Regions Hospital, Hlth. Partners Res. Fndn.*
- 10:00 BB6 **713.19** ● Pharmacologic properties of TAK-063, a potent and selective phosphodiesterase 10A inhibitor, as a novel therapeutic option for the treatment of schizophrenia. H. KIMURA*; K. SUZUKI; A. HARADA; E. SHIRAISHI; N. KAMIGUCHI; K. NAKASHIMA; T. TANIGUCHI. *Takeda Pharmaceut. Co. Limited.*
- 11:00 BB7 **713.20** ● Targeting xCT (the cystine-glutamate antiporter) for the treatment of CNS disorders. C. E. BEYER*; M. P. NEARY; N. RADDATZ; D. C. LOBNER; J. R. MANTSCH; D. G. LAWTON; D. A. BAKER. *Promentis Pharmaceuticals, Marquette Univ.*
- 8:00 BB8 **713.21** ● Brain distribution of gd-nanoemulsion upon intranasal delivery using 3d atlas based MRI study. P. P. KULKARNI*; S. YADAV; M. AMIJI; C. F. FERRIS. *Northeastern Univ., Northeastern Univ.*
- 9:00 BB9 **713.22** ▲ Potassium channel TREK-1 might be a potential target for treatment of depression. X. WANG*. *Inst. Materia Med.*
- 10:00 BB10 **713.23** *In vivo* evaluation of tissue damage during insertion of needles at varying insertion speed into the brain. M. SARNTINORANONT*; F. CASANOVA; P. F. CARNEY. *Univ. of Florida, Univ. of Florida.*
- 11:00 BB11 **713.24** ▲ Gene expression and cytotoxicity in an *in vitro* model of the blood-brain barrier following poly(butylcyanoacrylate) nanoparticle exposure. A. HALL; R. HEMMER; R. SPAULDING; H. N. WETZEL; B. A. SABEL; P. HENRICH-NOACK; S. PIXLEY; T. HOPKINS; R. BOYCE; H. A. BULLEN; P. SCHULTHEIS; K. L. HAIK*. *Northern Kentucky Univ., Otto-von-Guericke Univ. Sch. of Med., Univ. of Cincinnati Med. Ctr., Northern Kentucky Univ.*
- 8:00 BB12 **713.25** ● Novel Pharmacomap technology to improve predictability of human outcomes based on animal preclinical studies. L. KADIRI; M. CASTELLI; K. U. VENKATARAJU; P. OSTEN*. *Certerra Inc, Certerra Inc., Cold Spring Harbor Lab.*
- 9:00 BB13 **713.26** Oral tryptophan administration in healthy humans: effects on blood kynurenes and verbal learning. M. A. THOMAS*; L. M. ROWLAND; H. H. HOLCOMB; H. J. WEHRING; B. A. FISHER; J. WEST; R. SCHWARCZ. *Maryland Psychiatric Res. Ctr. Univ. of Maryland Sch. of Med.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 BB14 **713.27** NMDA receptor signaling - approaches for target identification and development of inhibitory strategies. L. LI*; T. LAITINEN; A. POSO; M. J. COURTNEY. *Mol. Signalling lab, A.I. Virtanen Inst., Computat. drug design, Sch. of Pharmacy, Univ. of Eastern Finland.*
- 11:00 BB15 **713.28** • *In vivo* characterization of a novel highly potent GPR88 agonist. B. L. KIEFFER*; J. BECKER; D. FILIOL; C. MORICE; S. ROPP; S. MAYER; C. CATHARY; S. SCHANN. *McGill Univ. Douglas Res. Ctr., IGBMC - CNRS/INSERM/UdS, Prestwick Chem., Domain Therapeut.*
- 8:00 BB16 **713.29** A new brain drug delivery strategy: Focused ultrasound-enhanced intranasal drug delivery. H. CHEN*; C. C. CHEN; S. WU; T. SUN; C. ACOSTA; E. E. KONOFAGOU; E. E. KONOFAGOU. *Columbia Univ.*
- 9:00 BB17 **713.30** Otx2-based rescue of parvalbumin circuit connectivity in autism spectrum disorders. A. PATRIZI*; J. J. LEBLANC; S. B. MIERAU; M. FAGIOLINI; T. K. HENSCH. *Boston Children's Hosp. Harvard Med. Sch., Ctr. for Brain Science, Harvard Univ.*

POSTER

714. New Drugs for Pain, Headache, and Migraine

Theme C: Disorders of the Nervous System

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

- 8:00 BB18 **714.01** ▲ Antinociceptive synergistic interaction between tramadol with palmitoylethanolamide on the formalin test in mice. P. M. RAMÍREZ*; M. DÉCIGA-CAMPOS; F. J. LÓPEZ-MUÑOZ. *CINVESTAV, Inst. Politécnico Nacional, Inst. Politécnico Nacional, Cinvestav-Sur.*
- 9:00 BB19 **714.02** Synergistic interaction between morphine and tizanidine in rat. M. DECIGA-CAMPOS*; K. BELTRÁN-VILLALOBOS. *Escuela Superior De Medicina IPN.*
- 10:00 BB20 **714.03** • Phase I studies to evaluate safety, tolerability and pharmacokinetics of novel translocator protein antagonist ONO-2952 in healthy subjects. A. T. WOOD; K. MITSUI*; F. SUTO; M. KOBAYASHI; M. KOMENO; S. KATSUMATA. *ONO Pharma USA, Inc., Minase Res. Institute, ONO Pharmaceut. Co., Ltd.*
- 11:00 BB21 **714.04** • A phase I PET study to evaluate brain translocator protein occupancy by ONO-2952 in healthy adult subjects using ¹¹C-PBR28. G. W. FRANKLE; R. NARENDHAN; S. N. MASON; A. T. WOOD; F. SUTO; K. MITSUI; M. KOBAYASHI; T. OHNO; A. YAMAUCHI; M. KOMENO; S. KATSUMATA*. *Univ. of Pittsburgh Med. Ctr. Presbyterian Hosp., ONO Pharma USA, Inc., ONO Pharmaceutical Co., Ltd., ONO Pharmaceutical Co., Ltd.*
- 8:00 BB22 **714.05** Isobolographic Analyses of Memantine-Metamizol and Memantine-Ketoprofen antinociceptive oral combinations in rat formalin test. A. ZUÑIGA-ROMERO; M. Y. GAUTHEREAU TORRES; L. F. ORTEGA-VARELA*. *Univ. Michoacana de San Nicolás de Hidalgo, Univ. Michoacana de San Nicolás de Hidalgo, UMSNH, Lic. En Salud Publica.*
- 9:00 BB23 **714.06** The inhibition of N-acylethanolamine acid amidase activity produces antinociceptive effect. O. SASSO*; A. REGGIANI; D. PIOMELLI. *Fondazione Inst. Italiano Di Tecnologia.*
- 10:00 BB24 **714.07** • Neurochemical and behavioural assessment of tapentadol alone and in combination with donepezil for the memory impairment in rats. V. BENADE*; S. DARIPELLI; G. BHYRAPUNENI; R. PONNAMANENI; A. MANOHARAN; V. GOURA; R. GADI; R. NIROGI. *Suven Life Sci. Ltd.*
- 11:00 BB25 **714.08** Differential mechanisms of vasodilation of PACAP and CGRP in rat middle meningeal artery: Potential role in migraine headache. A. SYED; V. MAY; G. C. WELLMAN*. *Univ. of Vermont, Univ. of Vermont, Univ. of Vermont.*
- 8:00 BB26 **714.09** Gabapentin reverses central hyperactivities and connectivities, and suppresses medial prefrontal cortical glucose metabolism in rats with neuropathic pain. H. LIN; Y. HUANG; T. CHAO; W. LIN; W. SUN; C. YEN*. *Natl. Taiwan Univ., Natl. Taiwan Univ. Hosp.*
- 9:00 BB27 **714.10** • Development of a cathepsin S inhibitor for neuropathic pain: Efficacy in a preclinical model of taxol-induced neuropathy and phase 1 clinical profile. L. J. HOLSINGER*; A. MARQUEZ; T. MIXCOATL-ZECUATL; D. B. KARPFF; A. SUDHAKAR; J. M. DENER; K. ELROD; R. F. G. BOOTH; N. A. CALCUTT. *Virobay Inc., Univ. of California San Diego.*
- 10:00 BB28 **714.11** • Selective Melatonin MT2 receptor ligands decrease neuropathic pain through modulation of brainstem descending antinociceptive pathways. G. GOBBI*; M. LOPEZ-CANUL; E. PALAZZO; L. LUONGO; S. DOMINGUEZ-LOPEZ; B. LACOSTE; V. GRANADOS-SOTOS; S. MAIONE. *McGill Univ., Univ. Veracruzana, Second Univ. of Naples, Cinvestav Sede Sur.*
- 11:00 BB29 **714.12** Involvement of spinal transforming growth factor-beta 1 in the analgesic effects of a coral-derived compound flexibilide in neuropathic rats. S. HUANG*; C. CHEN; N. CHEN; C. FENG; H. HUNG; Y. LIN; P. SUNG; C. SUNG; S. YANG; H. WANG; J. SHEU; W. CHEN; Z. WEN. *Natl. Sun Yat-Sen Univ., Natl. Sun Yat-sen Univ. and Academia Sinica, Kaohsiung Armed Forces Gen. Hosp., Natl. Museum of Marine Biol. and Aquarium, Taipei Veterans Gen. Hosp., I-Shou Univ., Kaohsiung Med. Univ., Kaohsiung Chang Gung Mem. Hosp. and Chang Gung Univ. Col. of Med.*
- 8:00 BB30 **714.13** • Addition of a single methyl group converts a small molecule Nav channel inhibitor targeting the voltage sensor into a Nav channel "activator". L. WANG; S. ZELLMER; D. PRINTZENHOFF; M. CHAPMAN; N. CASTLE*. *Neusentis (Pfizer).*
- 9:00 BB31 **714.14** • Newly designed potent small molecule inhibitors of soluble epoxide hydrolase (sEH) target chronic inflammatory & neuropathic pain. W. K. SCHMIDT*; K. S. S. LEE; K. M. WAGNER; B. INCEOGLU; B. D. HAMMOCK. *NorthStar Consulting, LLC, Univ. of California.*
- 10:00 BB32 **714.15** • Evaluation in the modulation of brain and spinal cord monoamine levels on the anti-nociceptive activity of tapentadol. S. DARIPELLI; S. M. IRAPPANAVAR*; G. BHYRAPUNENI; V. BENADE; G. AYYANKI; R. PONNAMANENI; A. MANOHARAN; R. NIROGI. *SUVEN LIFE SCIENCES LTD.*
- 11:00 BB33 **714.16** WITHDRAWN.

POSTER

715. Stroke Recovery: Rodent Models

Theme C: Disorders of the Nervous System

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

- 8:00 CC1 **715.01** Aged rat sex differences in learning sensorimotor tasks and post-stroke recovery. V. J. BORKOWSKI; S. TSAI*; K. S. HSU; A. E. MARINOPOULOS; V. A. HUSAK; C. M. PAPADAPPOULOS; G. L. KARTJE. *Neurosci. Institute, Loyola Univ. Chicago Hlth. Sci. Div., Edward Hines Jr VA Hosp.*
- 9:00 CC2 **715.02** Influence of sildenafil citrate on development of local cerebral infarction. M. NEBIERIDZE*; I. ERKOMAISHVILI; G. AZIKURI; M. DEVDARIANI; N. SIKHARULIDZE; N. MITAGVARIA. *I. Beritashvili Ctr. of Exptl. Biomedicine.*
- 10:00 CC3 **715.03** Hormetic effect and its distribution at hydrogen peroxide-induced oxidative stress. M. DEVDARIANI*; L. DAVLIANIDZE; M. NEBIERIDZE; L. GUMBERIDZE; I. KVACHAKIDZE; N. MITAGVARIA. *I. Beritashvili Ctr. of Exptl. Biomedicine.*
- 11:00 CC4 **715.04** PGF2a-FP receptor Role in a mouse model of intracerebral hemorrhage. S. MOHAN*; E. KOLLER; S. NARUMIYA; S. DORE. *CTRND, Univ. of Florida Col. of Med., Kyoto Univ.*
- 8:00 CC5 **715.05** Modeling of ischemic stroke therapy using endogenous adult neural stem cells - A multi-disciplinary patient customised approach. S. KAPOOR*; V. P. S. RALLABANDI; B. VICTOR; P. K. ROY. *Natl. Brain Res. Ctr.*
- 9:00 CC6 **715.06** Why C-fos matters in the bedside treatment of stroke: A new clue in the development of a tolerant brain against ischemic stroke. T. I. NATHANIEL*; M. OKON; T. O. AKINWOLE; E. OTUKONYONG; A. IMEH-NATHANIEL. *Univ. of South Carolina Sch. of Med. At Greenville, Obafemi Awolowo Univ., Univ. of Alabama, Dept. of Hlth. Sci., North Greenville Univ.*
- 10:00 CC7 **715.07** ● Polyethylene glycol modified albumin (PEG-albumin) reduces the infarct size in mouse model of ischemic stroke and cerebral edema. R. ALGHATANI; J. TULSULKAR; M. AZIZI; V. KAZAN; A. R. KHAN; M. JUMAA; N. ALTOROK; J. D. DIGNAM; Z. A. SHAH*; R. ASSALY. *Univ. of Toledo, Univ. of Toledo, Univ. of Toledo, Univ. of Toledo, Univ. of Toledo Col. of Pharm. and Pharmaceut. Sci.*
- 11:00 CC8 **715.08** Possible role of Piroxicam in GABA agonism to alleviate Glutamate mediated neuronal insult in rodent model of ischemic stroke. P. BHATTACHARYA*; A. K. PANDEY; S. PAUL; R. PATNAIK. *Leonard M. Miller Sch. of Med., Indian Inst. of Technology, Banaras Hindu Univ., North Eastern Hill Univ. (NEHU), Indian Inst. of Technology, Banaras Hindu Univ.*
- 8:00 CC9 **715.09** Effects of 6-bromindirubin-3'-oxime on neurogenesis and angiogenesis after hemorrhage stroke in mice. Y. ZHAO*; J. LI; J. SUN; S. YU; L. WEI. *Beijing Friendship Hospital, Department of Neurol., Emory Univ., Emory Univ.*
- 9:00 CC10 **715.10** Stem cell factor and granulocyte colony-stimulating factor regulate neurite extension through p53. L. ZHAO*; M. GAO. *SUNY Upstate Med. Univ.*

- 10:00 CC11 **715.11** Contribution of the cortico-rubral axons to recovery by the constraint-induced movement therapy in capsular hemorrhage rats. A. ISHIDA*; K. ISA; K. KOBAYASHI; T. UMEDA; T. ISA; H. HIDA. *Nagoya City Univ. Grad. Sch. of Med. Sci., Natl. Inst. Physiol. Sci., Natl. Inst. Physiol. Sci.*
- 11:00 CC12 **715.12** Impact of cerebral inflammation and mechanical disruption operation on neovascularization in mild ischemic rat model. G. PARK*; K. LEE; J. LEE; J. HONG. *Ajou Univ. Sch. of Med., Ajou university Sch. of Med.*
- 8:00 CC13 **715.13** Excitotoxic insult results in a persistent activation of CaMKII α in living hippocampal neurons and is linked to mitochondrial fragmentation. N. OTMAKHOV*; E. GORBACHEVA; S. REGMI; R. YASUDA; A. HUDMON; J. LISMAN. *Brandeis Univ., Max Planck Florida Inst., STARK Neurosci. Res. Inst.*
- 10:00 CC14 **715.14** Characteristics of delayed neuronal cell death in the ischemic core following focal cerebral ischemia in mice. M. Q. JIANG*; Y. ZHAO; X. GU; L. WEI; S. YU. *Emory Univ., Emory Univ., Beijing Friendship Hospital, Capital Univ. of Med. Sci., Emory Univ.*
- 9:00 CC15 **715.15** Early post-stroke administration of L-DOPA dramatically improves motor function recovery in rats. L. YAN*; Q. LI; W. H. YUNG; Y. KE. *The Chinese Univ. of Hong Kong.*
- 11:00 CC16 **715.16** A novel automated method for isolating and quantifying supination performance in a rat model of ischemic stroke. E. MEYERS*; A. SINDHURAKAR; S. HAYS; A. SLOAN; J. CARMEL; M. KILGARD; R. RENNAKER. *Univ. of Texas At Dallas, Burke Med. Res. Inst., Weill Med. Col. of Cornell Univ., Univ. of Texas At Dallas.*
- 8:00 CC17 **715.17** The effect of inducible nitric oxide synthase inhibition on development of local hyperthermia-induced morpho-physiological changes in the brain tissue of rats. L. GOBECHIA-DAVLIANIDZE*; M. DEVDARIANI; N. MOMTSELIDZE; M. MANTSKAVA; M. NEBIERIDZE; N. MITAGVARIA. *I. Beritashvili Ctr. of Exptl. Biomedicine.*

POSTER

716. Stroke Recovery

Theme C: Disorders of the Nervous System

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

- 8:00 CC18 **716.01** Restoration and manipulation of regained forelimb function after stroke. A. E. WAHL*; W. OMLOR; B. ANTIC; S. MUSALL; J. C. RUBIO; A. SCHRÖTER; M. GULLO; H. KASPER; O. WEINMANN; F. HELMCHEN; B. OMMER; M. E. SCHWAB. *Brain Res. Institute, Univ. and ETH Zurich, Brain Res. Institute, University of Zurich, Computer Vision Group, Heidelberg Collaboratory for Image Processing and IWR, Univ. of Heidelberg, Inst. for Biomed. Engineering, ETH Zurich.*
- 9:00 CC19 **716.02** Cervical trans-spinal direct current stimulation activates dormant connections after pyramidal tract injury. A. AMER; Z. AHMED*. *The Col. of Staten Island.*
- 10:00 CC20 **716.03** Effects of cathodal transcranial direct current stimulation with robotic therapy on arm function in subacute stroke patients. M. SOHN*; S. JEE; J. LIM. *Chungnam Natl. Univ. Hosp.*
- 11:00 CC21 **716.04** The calibration and limitations of a low cost data glove. J. M. GODLOVE*; A. TSU; K. GANGULY. *Univ. California San Francisco, San Francisco VA Med. Ctr.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 CC22 **716.05** ● 6-Hz primed vs. unprimed low-frequency repetitive transcranial magnetic stimulation in stroke. J. M. CASSIDY*; D. C. ANDERSON; M. CHEN; L. SNOW; W. THOMAS; J. R. CAREY. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*
- 9:00 CC23 **716.06** Error augmentation in chronic stroke: Behavioral & neuroanatomical correlates. D. B. ARCHER*; G. MISRA; D. E. VAILLANCOURT; C. PATTEN; S. A. COOMBES. *Univ. of Florida.*
- 10:00 CC24 **716.07** Prevention of deep vein thrombosis using intermittent electrical stimulation. E. N. RAVID*; S. GRAY; V. K. MUSHAHWAR. *Univ. of Alberta, Univ. of Alberta, university of Alberta.*
- 11:00 CC25 **716.08** Traditional Chinese medicine for intracerebral hemorrhage: A systematic review. Y. ZHANG*; Q. ZHANG; Y. SUN; J. LI; L. WEI. *Beijing Friendship Hosp., Emory Univ.*
- 8:00 CC26 **716.09** Prophylactic edaravone treatment against transient cerebral hypoxia-ischemia- implications for postoperative stroke and encephalopathy. Y. SUN*; Y. LI; K. ABE; C. KUAN. *Emory Univ. Sch. of Med., Okayama Univ.*
- 9:00 CC27 **716.10** Wide pulse neuromuscular electrical stimulation increases hand opening in individuals with moderate to severe stroke. J. YAO*; F. MAAGDENBERG; Y. LAN; J. E. SULLIVAN; J. DEWLAD. *Northwestern Univ., Delft Univ. of Technol.*
- 10:00 CC28 **716.11** Low-level acoustic speech features correlate with language measures in aphasia therapy. K. K. MAUL*; M. GORAL; O. TCHERNICHOVSKI. *Gallaudet Univ., Lehman College, City Univ. of New York, Hunter College, City Univ. of New York.*
- 11:00 CC29 **716.12** Does earlier age of onset predict better outcome from stroke? K. CHEN*; K. MANZEL; Y. TORRES; N. AKSAN; N. DENBURG; D. TRANEL; S. W. ANDERSON. *Univ. of Iowa.*
- 8:00 CC30 **716.13** Combining treadmill training with overground training and rhythmic auditory cueing for individuals with chronic stroke: Is there a benefit? J. WHITALL*; S. MCCOMBE WALLER; A. HOWE; C. HAFER-MACKO; L. FORRESTER. *Univ. of Maryland, Baltimore.*
- 9:00 CC31 **716.14** ● Multimodal predictors of rehabilitation related recovery in stroke. N. VARNERIN*; D. A. CUNNINGHAM; S. ROELLE; K. A. POTTER-BAKER; V. SANKARASUBRAMANIAN; K. SAKAIE; E. BEALL; A. MACHADO; E. B. PLOW. *Cleveland Clin., Kent State Univ., Cleveland Clin., Cleveland Clin.*
- 10:00 CC32 **716.15** Paradoxical motor recovery from a first stroke by re-opening a sensitive period with a second stroke. S. ZEILER*; R. B. HUBBARD; E. M. GIBSON; K. NG; T. ZHENG; R. J. O'BRIEN; J. W. KRAKAUER. *Johns Hopkins, Johns Hopkins, UCLA.*
- 11:00 CC33 **716.16** ● Acute reemergence of neurological function following 4R treatment after ischemic stroke. W. CASTRO*; H. MARTINS; P. FERCHMIN; G. GRUDZIAK; V. ETEROVIC. *Univ. Central Del Caribe, Univ. Central Del Caribe, Bromedicon.*
- 8:00 CC34 **716.17** Bursting and regular chronic cerebellar stimulation modulates perilesional cortical angiogenesis and neurogenesis. H. H. CHAN*; J. COOPERRIDER; J. GALE; A. MACHADO. *Cleveland Clin., Cleveland Clin.*
- 9:00 CC35 **716.18** ● Differential modulation of the lateral cerebellar nucleus during successful and unsuccessful reaching attempts. J. COOPERRIDER*; J. T. GALE; R. GOPALAKRISHNAN; C. WATHEN; H. CHAN; H. PARK; A. MACHADO. *Cleveland Clin.*
- 10:00 CC36 **716.19** ● Vagus nerve stimulation and healthy limb training modify stroke recovery. A. NGUYEN*; N. KHODAPARAST; S. HAYS; M. P. KILGARD*; R. L. RENNAKER II*. *Univ. of Texas At Dallas, Univ. of Texas At Dallas, Univ. of Texas At Dallas, Univ. of Texas At Dallas.*
- 11:00 DD1 **716.20** ● Translational potential of vagus nerve stimulation to enhance recovery of motor function after stroke. N. KHODAPARAST*; R. CASAVANT; S. A. HAYS; A. RUIZ; N. JONES; B. NGUYEN; M. THOMAS; C. LE; R. RENNAKER, II; M. P. KILGARD. *Univ. of Texas At Dallas, Microtransponder, Univ. of Texas at Dallas.*
- 8:00 DD2 **716.21** ● Vagus nerve stimulation paired with rehabilitative training improves recovery of forelimb function in clinically relevant models of stroke. S. A. HAYS*; N. KHODAPARAST; A. RUIZ; M. IYENGAR; P. DAS; E. NUTTING; I. KUSHNER; V. LAND; N. HOUSHMANDI; R. RENNAKER, II; M. KILGARD. *Univ. of Texas At Dallas, Univ. of Texas at Dallas.*
- 9:00 DD3 **716.22** ▲ Shiatsu and recovery of functional capacity in post-stroke patients. J. H. SATO*; S. M. TAGAMI; R. H. D. D. LABRONICI; F. M. ALFIERI; R. N. ISAYAMA. *Faculdade De Medicina De Jundiai (FMJ), UNASP-SP.*
- 10:00 DD4 **716.23** CREB facilitates recovery and reorganization of forelimb sensory map after a photothrombotic stroke in mice. L. CARACCILO*; M. MAROSI; Y. SANO; A. SILVA; C. PORTERA-CAILLIAU; T. CARMICHAEL. *David Geffen Sch. of Med. At UCLA, David Geffen Sch. of Med. At UCLA.*

POSTER

717. Stroke: Imaging and Diagnostics I

Theme C: Disorders of the Nervous System

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

- 8:00 DD5 **717.01** The tibial somatosensory evoked potential can prognosticate for the ambulation in hemiplegic stroke. S. JEE*. *Chungnam Natl. Univ. Hosp.*
- 9:00 DD6 **717.02** ● Phase synchrony of resting state electroencephalography in ischemic stroke: II. Distinct effects of lesion side on the relationship between hemispheric asymmetry in large-scale synchrony networks and functional recovery. Y. UNO*; T. KAWANO; N. HATTORI; M. HATAKENAKA; I. MIYAI; K. KITAJO. *RIKEN, Neurorehabilitation Res. Institute, Morinomiya Hosp.*
- 10:00 DD7 **717.03** Changes in diffusion mri following experimental stroke and rehabilitative training. R. WEBER*; X. NIE; E. S. HUI; J. H. JENSEN; M. F. FALANGOLA; J. A. HELPERN; D. L. ADKINS. *Med. Univ. of South Carolina, Med. Univ. of South Carolina, The Univ. of Hong Kong, Med. Univ. of South Carolina, Med. Univ. of South Carolina.*

- 11:00 DD8 **717.04** ● Phase synchrony of resting state electroencephalography in ischemic stroke: I. Distinct effects of band frequency on various aspects of functional outcome. T. KAWANO*; N. HATTORI; Y. UNO; K. KITAJI; M. HATAKENAKA; H. YAGURA; H. FUJIMOTO; T. YOSIOKA; M. NAGASAKO; H. OTOMUNE; I. MIYAI. *Morinomiya Hosp., Riken, Osaka Univ. Grad. Sch. of Med.*
- 8:00 DD9 **717.05** Changes in gangliosides expression detected by MALDI IMS in a combined rat model of Alzheimer's disease and stroke. S. CAUGHLIN*; J. D. HEPBURN; D. PARK; K. JURCIC; K. YEUNG; D. F. CECHETTO; S. N. WHITEHEAD. *The Univ. of Western Ontario, The Univ. of Western Ontario, The Univ. of Western Ontario.*
- 9:00 DD10 **717.06** ● In vivo analysis of brain-resident and blood-derived inflammation after experimental stroke. M. SCHROETER*; H. L. WALTER; M. WALBERER; M. A. RUEGER; H. BACKES; D. WIEDERMANN; M. HOEHN; B. NEURMAIER; R. GRAF; G. R. FINK. *Dept. of Neurology, Univ. Hosp. Cologne, Univ. Hosp. Cologne, Max-Planck-Institute for Neurolog. Res., Res. Ctr. Juelich.*
- 10:00 DD11 **717.07** Neural mechanisms of performance monitoring during a physical exertion task in Chronic Fatigue Syndrome. M. E. VAN DER SCHAAF*; I. TONI; K. ROELOFS; F. DE LANGE; D. GEURTS; J. VAN DER MEER; H. KNOOP. *Radboud Univ. Nijmegen Med. Centre, Donders Inst., Radboud Univ. Nijmegen Med. Centre, Expert Ctr. for Chronic Fatigue, Radboud Univ. Nijmegen, Behavioural Sci. Inst.*
- 11:00 DD12 **717.08** Heightened perception of effort after stroke: Evidence of increased activity in SMA and striatum. A. KUPPUSWAMY*; E. CLARK; I. TURNER; K. SANDHU; J. ROTHWELL; N. WARD. *Inst. of Neurology, UCL.*
- 8:00 DD13 **717.09** Restoration of cortical blood flow precedes spontaneous forelimb recovery after cortical infarcts in mice. D. WOODIE*; S. KAZMI; M. FU; A. TANG; A. K. DUNN; T. A. JONES. *The Univ. of Texas, The Univ. of Texas, Duke Univ., The Univ. of Texas.*
- 9:00 DD14 **717.10** Longitudinal recovery of naming in stroke patients: Preliminary findings. R. SEBASTIAN*; S. JARSO; J. PURCELL; C. DAVIS; Y. GOMEZ; J. CRINION; A. HILLIS. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Univ. Col. London.*
- 10:00 DD15 **717.11** Lesion topography and functional connectivity disruption influence different domains of post-stroke deficit. J. S. SIEGEL*; L. E. RAMSEY; A. Z. SNYDER; R. V. CHACKO; K. Q. WEINBERGER; G. L. SHULMAN; M. CORBETTA. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. in St. Louis, Washington Univ. Sch. of Med.*
- 11:00 DD16 **717.12** Impairments in cognitive function and resting network connectivity in chronic stroke. A. M. AURIAT*; J. K. FERRIS; L. A. BOYD. *Univ. of British Columbia, Univ. of British Columbia.*
- 8:00 DD17 **717.13** ● Putting transcranial magnetic stimulation, diffusion tensor imaging and functional MRI to the test: A study of interhemispheric imbalance in chronic stroke. D. A. CUNNINGHAM*; A. MACHADO; D. JANINI; N. VARNERIN; C. BONNETT; S. ROELLE; G. YUE; S. JONES; M. LOWE; E. BEALL; K. SAKAIE; E. PLOW. *Cleveland Clin., Cleveland Clin., Kessler Fdn., Cleveland Clin.*
- 9:00 DD18 **717.14** Network modeling of resting state fMRI of stroke patients yields effective measures that correlate with behavioral performance impairments. M. H. ADHIKARI*; C. D. HACKER; A. GRIFFA; P. HAGMANN; G. DECO; M. CORBETTA. *Univ. of Pompeu Fabra, Washington Univ. at St Louis, Ecole Polytechnique Fédérale de Lausanne, Univ. of Lausanne.*
- 10:00 DD19 **717.15** Plasticity in human motor system induced by somatosensory training in stroke patients. S. VAHDAT*; M. DARAINY; A. THIEL; D. OSTRY. *Univ. of Montreal, McGill Univ.*
- 11:00 DD20 **717.16** Disruption of interregional influence between Dorsal Attention Network and Visual Occipital Cortex following right hemisphere stroke. T. MEEHAN; S. L. BRESSLER*; S. V. ASTAFIEV; M. CORBETTA; G. L. SHULMAN. *Florida Atlantic Univ., Florida Atlantic Univ., Washington Univ. Sch. of Med.*
- 8:00 DD21 **717.17** Dynamic neurite change responsible for motor recovery. T. HAYASHI*; N. HIGO; H. ZHANG; T. OSE; T. YAMAMOTO; Y. MURATA; H. ONOE. *RIKEN Ctr. For Life Sci. Technologies, AIST, UCL, RIKEN Ctr. for Life Sci. Technologies, Tsukuba Intl. Univ.*
- 9:00 DD22 **717.18** Neural correlates of story-comprehension performance in chronic aphasic patients. S. LIU*; M. HEALEY; S. BISSONNETTE; H. CHOW; Y. XU; M. PUERTOLAS LOPEZ; A. BRAUN. *NIH.*
- 10:00 DD23 **717.19** Leptomeningeal collateral circulation in acute stroke: Its relevance to the effectiveness of revascularization therapy. M. SUÁREZ-PINILLA; E. MORALES-DEZA; D. LARROSA-CAMPO; L. BENAVENTE-FERNÁNDEZ; E. CARBONI*; S. CALLEJA-PUERTA. *Hosp. Universitario Central de Asturias, Univ. Cagliari.*
- 11:00 DD24 **717.20** DTI analysis of corticospinal tract using BrainSuite: A potential biomarker of upper extremity therapeutic response to neurorehabilitation in chronic stroke. B. KIM*; D. B. KAY; Y. YI; D. LEE; Y. CHAUDHRY; J. P. HALDAR; R. M. LEAHY; C. J. WINSTEIN. *USC, USC, USC, USC.*
- 8:00 DD25 **717.21** ● Predicting variability of distal muscle recruitment curves in stroke using diffusion tensor imaging (DTI). K. A. POTTER-BAKER*; N. M. VARNERIN; D. A. CUNNINGHAM; S. M. ROELLE; V. SANKARASUBRAMANIAN; A. MACHADO; A. B. CONFORTO; K. SAKAIE; E. B. PLOW. *Cleveland Clin. Fdn., Univ. of San Paulo.*

POSTER

718. Stroke: Imaging and Diagnostics II

Theme C: Disorders of the Nervous System

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

- 8:00 DD26 **718.01** Prediction of sensorimotor recovery in pure motor hemiparesis using fMRI. T. ZEFFIRO*; A. JAILLARD. *Neurometrika, CHU Grenoble.*
- 9:00 DD27 **718.02** ● Are delayed postural responses to perturbations associated with poorer balance capacity in people after stroke? D. DE KAM*; A. BRUIJNES; J. ROELOFS; A. C. H. GEURTS; V. WEERDESTYEN. *Radboud Univ. Med. Ctr.*

* Indicated a real or perceived conflict of interest, see page 153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 DD28 **718.03** • Characterizing white matter disconnection in stroke with constrained spherical deconvolution tractography. A. U. TURKEN*. *Dept of Veterans Affairs NCHCS.*
- 11:00 DD29 **718.04** Simultaneous TMS-EEG to assess transcallosal inhibition in chronic stroke. M. R. BORICH*; S. M. BRODIE; B. LAKHANI; L. A. BOYD. *Emory Univ., Univ. of British Columbia.*
- 8:00 DD30 **718.05** Functional and structural connectivity of the red nucleus after stroke. R. LINDENBERG; D. WERDER; B. TAUD; J. BRECHT; M. M. SIEG; M. MEINZER; A. FLOEL*. *Charite Univ. Med., Univ. of Queensland.*
- 9:00 DD31 **718.06** Altered motor planning network activity after stroke: Resting state methodology and analysis. S. PETERS*; M. J. MCKEOWN; J. GARLAND; B. LUU; L. A. BOYD. *Univ. of British Columbia.*
- 10:00 DD32 **718.07** Neurally dissociable information-processing components of reading deficits in subacute stroke. O. BOUKRINA*; E. J. ALEXANDER; A. M. BARRETT; W. W. GRAVES. *Rutgers, The State Univ. of New Jersey, Kessler Fdn., Rutgers-New Jersey Med. Sch.*
- 11:00 EE1 **718.08** Pilot testing of a PET insert for MRI: Preliminary results and clinical and research applications. J. A. BREFCZYNSKI-LEWIS*; C. BAUER; J. LEWIS; M. MANDICH; S. MAJEWSKI. *West Virginia Univ., West Virginia Univ.*
- 8:00 EE2 **718.09** Cortical activation and inter-hemispheric sensorimotor coherence in individuals with arm dystonia due to childhood stroke. S. N. KUKKE*; A. DE CAMPOS; D. DAMIANO; K. ALTER; M. HALLETT. *The Catholic Univ. of America, NIH.*
- 9:00 EE3 **718.10** • Multimodal assesment of the motor system for hand motor recovery prognosis in chronic stroke patients - Possibility of cortical mapping of hand synergies using navigated TMS. M. NAZAROVA*; M. PIRADOV; E. BLAGOVECHTCHENSKI; V. NIKULIN. *Natl. Res. Univ. - Higher Sch. of Ec, Res. Ctr. of Neurol., Natl. Res. Univ. - Higher Sch. of Econ., Charité - Univ. Med.*

POSTER

719. Olfactory Coding: Second-Order Regions (Olfactory Bulb and Antennal Lobe)

Theme D: Sensory and Motor Systems

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

- 8:00 EE4 **719.01** Differential serotonin action on two classes of glomerular inhibitory interneurons. J. BRILL*; R. COCKERHAM; A. PUCHE; M. WACHOWIAK; M. T. SHIPLEY. *Univ. of Maryland, Baltimore, Univ. of Utah.*
- 9:00 EE5 **719.02** Understanding the main olfactory bulb circuitry using intrinsic flavoprotein fluorescence imaging. C. UYTINGCO*; A. C. PUCHE; S. D. MUNGER. *Univ. of Maryland Sch. of Med.*
- 10:00 EE6 **719.03** Both intrinsic and circuit mechanisms regulate the afterhyperpolarization phase in the projection neurons of moth antennal lobe. H. LEI*; Y. YU; J. G. HILDEBRAND; A. Y. RANGAN. *Univ. Arizona, Chinese Acad. of Inspection and Quarantine, Univ. of Arizona, New York Univ.*
- 11:00 EE7 **719.04** High-frequency sniffing reformat odor representations by altering the balance of excitation and inhibition in olfactory bulb output neurons. M. WACHOWIAK*; M. DIAZ-QUESADA; M. N. ECONOMO; K. R. HANSEN. *Univ. of Utah, Univ. of Utah.*
- 8:00 EE8 **719.05** *In vivo* imaging of targeted cell populations in the mouse olfactory bulb. D. A. STORACE*; O. R. BRAUBACH; Y. CHOI; L. B. COHEN; U. SUNG. *Yale Univ., Korea Inst. of Sci. and Technol., Marine Biol. Lab.*
- 9:00 EE9 **719.06** Cellular and population analyses of signal filtering at olfactory bulb glomeruli. J. D. ZAK*; N. E. SCHOPPA. *Univ. of Colorado, AMC.*
- 10:00 EE10 **719.07** High-speed recording of odor-evoked calcium transient in the olfactory bulb neurons using an AOD-based two-photon microscope. R. HOMMA*; X. LV; S. ZENG; S. NAGAYAMA. *Univ. of Texas Med. Sch. at Houston, Huazhong Univ. of Sci. and Technol., Wuhan Natl. Lab. for Optoelectronics.*
- 11:00 EE11 **719.08** Molecular and functional characterization of Igr5 expressing cells in the olfactory bulb. A. H. MOBERLY; Y. YU; M. MA*. *Univ. Pennsylvania.*
- 8:00 EE12 **719.09** Detection of components in an odor mixture is tuned by experience and changes in the antennal lobe. E. MARACHLIAN*; F. LOCATELLI. *IFIByNE CONICET-University of Buenos Aires, Physics Dept. UBA.*
- 9:00 EE13 **719.10** Differential modulation of mouse main olfactory bulb external tufted and mitral cell excitability by group I and II mGluRs. H. DONG*; M. ENNIS. *Univ. Tennessee, HSC.*
- 10:00 EE14 **719.11** Alterations in the intrinsic and synaptic properties of olfactory bulb principal cells in Cntnap2 knockout mice. M. A. GERAMITA*; N. N. URBAN. *Univ. of Pittsburgh, Carnegie Mellon Univ.*
- 11:00 EE15 **719.12** Cholinergic modulation of glomerular circuits sculpts olfactory bulb output. S. LIU; Z. SHAO; M. ROTHERMEL; M. WACHOWIAK; A. C. PUCHE*; M. T. SHIPLEY. *Univ. of Maryland, Univ. of Utah.*
- 8:00 EE16 **719.13** A tale of two transmitters: Effects of dopamine and GABA on the olfactory bulb microcircuit. C. VAAGA*; J. T. YORGASON; J. T. WILLIAMS; G. L. WESTBROOK. *Oregon Hlth. and Sci. Univ.*
- 9:00 EE17 **719.14** Novel connectivity within the accessory olfactory bulb and between the main and accessory olfactory bulbs. V. VARGAS-BARROSO; F. PEÑA-ORTEGA; B. ORDÁZ; J. LARRIVA-SAHDA*. *Inst. de Neurobiología UNAM.*
- 10:00 EE18 **719.15** Imaging odor representation by olfactory bulb granule cells at subcellular resolution. M. WIENISCH*; V. N. MURTHY. *Harvard Univ.*
- 11:00 EE19 **719.16** Circuit mediating inhibition of olfactory bulb periglomerular cells. A. SANZ-DIEZ; D. DESAINTJAN*. *INCI, CNRS UPR 3212.*
- 8:00 EE20 **719.17** Olfactory-feeding crosstalk: Probing plasticity in the olfactory bulb of obese mice by Manganese-Enhanced MRI. Y. CHELMINSKI*; C. MARTIN; C. SEZILLE; A. GENOUX; C. SEBRIÉ; S. SCOTTO-LOMASSESE; H. GURDEN. *CNRS UMR8165 - IMNC, CNRS UMR8081 - IR4M, INSERM U839 - Inst. du fer à Moulin.*
- 9:00 EE21 **719.18** Birthdate-dependent segregation of mitral cell dendrites in mouse olfactory bulb. F. IMAMURA*; C. A. GREER. *Pennsylvania State Univ. Col. of Med., Yale Univ. Sch. of Med., Yale Univ. Sch. of Med.*

- 10:00 EE22 **719.19** Broad sensory activity rapidly alters the intrabulbar map. U. PARK*; D. CUMMINGS; M. NGUYEN; L. BELLUSCIO. *NIH/NINDS, NIH/NIDCR*.
- 11:00 EE23 **719.20** Feedforward inhibition regulates granule cell recruitment in the mammalian main olfactory bulb. S. D. BURTON*; N. N. URBAN. *Carnegie Mellon Univ., Ctr. for the Neural Basis of Cognition*.
- 8:00 EE24 **719.21** Differences of calcium handling properties between different functional compartments of uniglomerular projection neurons. D. FUSCA*; A. PIPPOW; B. WARREN; H. WRATIL; P. KLOPPENBURG. *Univ. of Cologne, Biocenter*.
- 9:00 EE25 **719.22** Are there quantitative changes in the circuitry of the olfactory bulb in methyl-4-phenyl-1, 2, 3, 6-tetrahydropyridine -treated monkeys? T. LIBERIA VAYÁ*; J. LANCIEGO; J. BLASCO-IBÁÑEZ; J. NÁCHER; E. VAREA; C. CRESPO. *UNIVERSITY OF VALENCIA, Ctr. for Applied Med. Res. (CIMA and CIBERNED) Univ. of Navarra*.
- 10:00 EE26 **719.23** Amplification of nicotinic receptor-mediated glomerular inhibition by signaling between periglomerular cells in the mouse olfactory bulb. P. PARSA*; R. D. D'SOUZA; S. VIJAYARAGHAVAN. *Univ. of Colorado, Denver, Washington University, Sch. of Med., Univ. of Colorado, Sch. of Med.*
- 11:00 EE27 **719.24** Activity-dependent plasticity in olfactory bulb dopaminergic neurons. B. GRIER*; C. CHEETHAM; L. BELLUSCIO. *NIH*.
- 8:00 EE28 **719.25** Unraveling the olfactory bulb circuit: comparing the roles of perinatal and adult-born granule cells. M. PALLOTTO*; K. L. BRIGGMAN. *NIH / NINDS*.
- 9:00 FF1 **719.26** Sexually-dimorphic neurophysiology in the main olfactory bulb of adult mice. M. D. KASS*; A. H. MOBERLY; J. P. MCGANN. *Rutgers Univ.*
- 10:00 FF2 **719.27** The spatio-temporal input-output function of the olfactory bulb is modulated by respiratory cycle activity. S. M. SHORT*; T. S. MCTAVISH; T. M. MORSE; G. M. SHEPHERD; J. V. VERHAGEN. *Yale Univ., John B. Pierce Lab.*
- 8:00 FF7 **720.05** Differential interactions between piriform cortex and olfactory bulb for orthonasal versus retronasal odors. S. GAUTAM*; W. SHEW. *Univ. of Arkansas*.
- 9:00 FF8 **720.06** Processing olfactory information of a single receptor type. E. M. ARNEODO*; K. PENIKIS; T. BOZZA; D. RINBERG. *New York Univ. Neurosci. Inst., Northwestern Univ., New York Univ. Neurosci. Inst.*
- 10:00 FF9 **720.07** Rapid and concentration tolerant odor identification via primacy coding. C. WILSON*; G. SERRANO; E. CHONG; A. RESULAJ; D. RINBERG. *NYU Neurosci. Inst.*
- 11:00 FF10 **720.08** Independent control of gamma and theta activity by distinct interneuron networks in the olfactory bulb. I. FUKUNAGA*; J. T. HERB; M. KOLLO; E. S. BOYDEN; A. T. SCHAEFER. *MRC, MIT*.
- 8:00 FF11 **720.09** The effects of primacy on the encoding of odor identity. A. KOULAKOV*; D. RINBERG. *Cold Spring Harbor Lab., NYU*.
- 9:00 FF12 **720.10** Extracting principles of random maps from olfactory systems. S. SRINIVASAN; C. F. STEVENS*. *Salk Institute; KIBM, UCSD, Salk Inst.*
- 10:00 FF13 **720.11** Spontaneous activity governs olfactory representations in spatially organized habenular microcircuits. S. K. JETTI*; N. VENDRELL-LLOPIS; E. YAKSI. *Neuroelectronics Res. Flanders*.
- 11:00 FF14 **720.12** A model of background invariant odor recognition. S. HANEY*; D. SAHA; B. RAMAN; M. BAZHENOV. *Univ. of California, Riverside, Washington Univ.*
- 8:00 FF15 **720.13** Odor transformations through the layers of insect olfactory system. T. KEE*; P. SANDA; N. GUPTA; M. STOPFER; M. BAZHENOV. *Univ. of California, Riverside, NIH-NICHD*.
- 9:00 FF16 **720.14** Serotonergic modulation of odor perception and olfactory bulb dynamics. M. LEWIS*; S. T. PEACE; G. LI; T. A. CLELAND; C. LINSTER. *Cornell Univ., Cornell Univ.*
- 10:00 FF17 **720.15** Locus Coeruleus stimulation reduces spontaneous activity and influences odor-evoked responses in the olfactory bulb of anesthetized rats. L. C. MANELLA*; C. LINSTER. *Cornell Univ.*
- 11:00 FF18 **720.16** Learning-dependent Egr-1 and c-Fos immediate-early gene expression in olfactory and valence circuits of the rat brain. S. LUO*; K. Y. KIM; L. TAN; K. V. GALL; M. EINHORN; T. A. CLELAND. *Cornell Univ.*
- 8:00 FF19 **720.17** Coupled-oscillator properties of gamma-band field oscillations in olfactory bulb slices. S. T. PEACE*; B. JOHNSON; A. MOLNAR; T. A. CLELAND. *Cornell Univ., Cornell Univ.*
- 9:00 FF20 **720.18** *In vivo* imaging of spatial patterns of neuronal activity in rat brain during predator odor exposure - A 99mTc-HMPAO-SPECT study. D. VINCENZ; K. WERNECKE; S. STORSBERG; H. SCHEICH*; W. D'HANIS; M. FENDT; J. GOLDSCHMIDT. *Leibniz Inst. for Neurobio., Ctr. for Behavioral Brain Sci., Otto-von-Guericke-University, Otto-von-Guericke-University*.
- 10:00 FF21 **720.19** Surprise alters primary sensory input to the brain. L. A. CZARNECKI*; D. J. TURKEL; A. H. MOBERLY; J. P. MCGANN. *Rutgers Univ., Rutgers Univ.*
- 11:00 FF22 **720.20** The role of BDNF-TRKB signaling in olfactory bulb-dependent olfactory memory. M. TONG*; T. P. KIM; E. L. GIBSON; R. SINGH; T. A. CLELAND. *Cornell Univ., Cornell Univ.*

POSTER

720. Olfactory Coding: Higher-Order Regions, Oscillations and Integrative Studies

Theme D: Sensory and Motor Systems

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

- 8:00 FF3 **720.01** Nasal airflow entrains glomerulus-specific theta oscillations for phase odor coding. R. IWATA*; T. IMAI. *RIKEN Ctr. For Developmental Biol., PRESTO, Japan Sci. and Technol. Agency (JST)*.
- 9:00 FF4 **720.02** Odor operators: Formation, interaction, and computational properties of distributed synaptic clusters in the olfactory bulb. M. MIGLIORE*; F. CAVARRETTA; M. L. HINES; E. TULUMELLO; G. M. SHEPHERD. *Natl. Res. Council, Yale Univ., Univ. of Milan*.
- 10:00 FF5 **720.03** A coupled-oscillator model of olfactory bulb gamma oscillations integrating both PING and STO mechanics. G. LI*; T. A. CLELAND. *Cornell Univ.*
- 11:00 FF6 **720.04** Cortical control of network structure and stimulus discrimination in olfaction. H. RIECKE*; W. ADAMS; J. N. GRAHAM; J. C. DENNIS. *Northwestern Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 FF23 **720.21** Modeling beta oscillations in the coupled cortico-bulbar network. B. L. OSINSKI*; L. M. KAY. *Univ. of Chicago, Univ. of Chicago, Univ. of Chicago.*

POSTER

721. Olfaction: Behavior Perception and Relationship to Neurophysiology

Theme D: Sensory and Motor Systems

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

- 8:00 FF24 **721.01** Dynamic cortical lateralization during olfactory discrimination learning. Y. COHEN*; D. PUTRINO; D. A. WILSON. *Nathan Kline Institute, New York Univ. Langone Sch. of Med., Weill Med. Col. of Cornell Univ., Burke Med. Res. Inst.*
- 9:00 FF25 **721.02** Odor and reward coding in the posterior piriform cortex. D. MILLMAN*; V. N. MURTHY. *Harvard Univ.*
- 10:00 FF26 **721.03** Mice lacking Fragile X mental retardation protein have decreased olfactory sensitivity and intact spontaneous olfactory discrimination abilities. A. SCHILIT NITENSON*; E. E. STACKPOLE; J. R. FALLON; K. G. BATH. *Brown Univ.*
- 11:00 FF27 **721.04** An olfactory cocktail party: Figure-ground segregation of odorants in rodents. D. ROKNI*; V. HEMMELDER; V. KAPOOR; V. N. MURTHY. *Harvard Univ., Harvard Univ.*
- 8:00 FF28 **721.05** Development of hedonics: Ontogeny of olfactory and limbic system circuits supporting maternal odor and predator odor responses in rats. S. AL AIN*; R. E. PERRY; K. MCSKY; R. SULLIVAN; D. WILSON. *Nathan Kline Inst., NYU Sch. of Med., NYU Langone Med. Ctr., NYU Sackler Inst. for Grad. Biomed. Sci., New York Univ.*
- 9:00 FF29 **721.06** ▲ From molecules to motion: Assessing the responses of house crickets to plant volatiles using behavioral and electrophysiological paradigms. K. A. HUYNH; M. C. NESLUND; T. C. BAKER; V. D. SHIELDS*. *Towson Univ., The Pennsylvania State Univ.*
- 10:00 FF30 **721.07** Arc catFISH visualization of odor engrams in the rat pup. A. GHEIDI*; A. SHAKHAWAT; Q. HOU; D. F. MARRONE; C. W. HARLEY; Q. YUAN. *Mem. Univ., Wilfrid Laurier Univ., Mem. Univ.*
- 11:00 FF31 **721.08** Temporally coherent ensemble neural activity in an olfactory system elicits predictable behavioral response in an odor recognition task. D. SAHA; C. LI; S. PETERSON; W. PADOVANO; N. KATTA; B. RAMAN*. *Washington Univ. In St. Louis.*
- 8:00 FF32 **721.09** The synchronized neural activity of olfactory neuron AWC with the head movement in *Caenorhabditis elegans*. M. MAKINO*; H. SHIDARA; K. HOTTA; K. OKA. *Keio Univ.*
- 9:00 GG1 **721.10** Retronasal but not orthonasal presentation of odors is sufficient for learning in an olfactory preference task. M. BLANKENSHIP*; J. MAIER; D. KATZ. *Brandeis Univ.*
- 10:00 GG2 **721.11** Figure-ground segregation of odorants in rodents: A simple model linking imaging and behavior. A. MATHIS*; D. ROKNI; V. HEMMELDER; V. KAPOOR; V. N. MURTHY. *Harvard Univ.*

11:00 GG3 **721.12** Arc catFISH visualization of pyramidal cell ensembles in the anterior piriform cortex following odour discrimination learning. A. M. SHAKHAWAT*; C. W. HARLEY; Q. YUAN. *Mem. Univ., Mem. Univ. of Newfoundland.*

POSTER

722. Mechanoreceptors and Cochlea

Theme D: Sensory and Motor Systems

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

- 8:00 GG4 **722.01** Transcriptome profiling with RNA-Seq uncovers expression of candidate *Xenopus* genes for Alzheimer's disease and hearing loss. D. RAMIREZ-GORDILLO*; E. E. SERRANO. *New Mexico State Univ.*
- 9:00 GG5 **722.02** Maintenance of stereocilia and apical junctional complexes by Cdc42 in cochlear hair cells. Y. NINOYU*; T. UEYAMA; H. SAKAGUCHI; T. NAKAMURA; A. GOTO; S. MORIOKA; B. FRITZSCH; Y. HISA; M. MATSUDA; A. AIBA; N. SAITO. *Lab. of Mol. Pharmacology, Biosignal Re. Dept. of Otolaryngology-Head and Neck Surgery, Kyoto Prefectural Univ. of Med., Lab. of Bioimaging and Cell Signaling, Grad. Sch. of Biostudies, Kyoto Univ., Dept. of Biology, Col. of Liberal Arts and Sciences, Univ. of Iowa, Lab. of Animal Resources, Ctr. for Dis. Biol. and Integrative Medicine, Fac. of Medicine, Univ. of Tokyo.*
- 10:00 GG6 **722.03** ● Simultaneous declines in NKCC1 and Na, K-ATPase, but not Kir4.1 and KCNQ1/KCNE1, are found in the cochlear lateral wall of CBA/CaJ mice with age-related hearing loss. B. DING; X. ZHU; R. D. FRISINA; D. FRISINA*, SR; J. P. WALTON. *Univ. of South Florida, Univ. of South Florida, Univ. of South Florida.*
- 11:00 GG7 **722.04** Targeted deletion of oncomodulin leads to changes in protein expression and efferent innervation. D. D. SIMMONS*; M. DAI; A. HORNAK. *UCLA.*
- 8:00 GG8 **722.05** Cisplatin treatment modulates the cochlear expression of LMO4 downstream targets. S. JAMESDANIEL*. *Wayne State Univ.*
- 9:00 GG9 **722.06** Survival of regenerated hair cells in the neonatal mouse cochlea. B. C. COX*; S. KARMARKAR. *Southern Illinois Univ. Sch. of Med.*
- 10:00 GG10 **722.07** Effect of stimulus filtering during intense noise exposure on caspase-3 expression and cell death in the auditory hair cells of C57BL/6J mice. J. RICHARDSON; J. YODER*; B. WILSON; M. ABERNATHY; R. KONIECZKA; A. KOCH; R. TAPP; D. GAUVIN; T. BAIRD. *MPI Res.*
- 11:00 GG11 **722.08** ● Aldosterone neuroprotection via mineralocorticoid receptors in the cochlea of aging CBA/CaJ mice. X. ZHU; B. DING; J. P. WALTON; R. D. FRISINA*. *Univ. of South Florida, Univ. of South Florida.*
- 8:00 GG12 **722.09** Measurements of cochlear microphonics from FM echolocating bats, Japanese house bats, *Pipistrellus abramus*. I. MATSUO*; H. ONODERA; H. RIKUIMAROUX. *Tohoku Gakuin Univ., Doshisha Univ., Doshisha Univ.*
- 9:00 GG13 **722.10** Unbiased stereological study of the spiral ganglion neurons in adult human cochlea. C. KAUR; T. ROY*; T. NAG; A. THAKAR; D. BHARDWAJ. *All India Inst. Med. Sci., All India Inst. of Med. Sci., All India Inst. of Med. Sci.*

POSTER

723. Sound Localization and Binaural Interactions

Theme D: Sensory and Motor Systems

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

- 8:00 GG14 **723.01** Directionality of gecko auditory nerve fibers in free field. J. CHRISTENSEN-DALSGAARD*; C. E. CARR. *Univ. Southern Denmark, Univ. of Maryland.*
- 9:00 GG15 **723.02** Heterogeneous organization of neuronal tunings for spatial cues in the primary avian auditory field: Comparison of the topographic midbrain with the non-topographic forebrain. M. V. BECKERT*; J. L. PENA. *Albert Einstein Col. of Med.*
- 10:00 GG16 **723.03** Commissural gain control improves discrimination of sound localization cues in the auditory midbrain. L. ORTON*; C. PAPASAVVAS; A. REES. *Newcastle Univ.*
- 11:00 GG17 **723.04** Sound localization processing nuclei of the gerbil contain functional $\alpha 7$ nAChRs. S. R. WEIMANN*; E. C. ESPOSITO; R. BURGER. *Lehigh Univ.*
- 8:00 GG18 **723.05** Evidence for a distance-dependent gradient in the strength of excitatory synapses along the dendrites of coincidence detector neurons in the medial superior olive. B. D. WINTERS; S. JIN; N. L. GOLDING*. *Univ. of Texas At Austin, Univ. of Texas At Austin.*
- 9:00 GG19 **723.06** Level invariant inter-aural level difference discrimination in rats. J. L. PARDO-VAZQUEZ*; A. RENART. *Champalimaud Ctr. For the Unknown.*
- 10:00 GG20 **723.07** Effects of interaural decorrelation on neural and behavioral sensitivity to interaural level differences. A. D. BROWN; D. J. TOLLIN*. *Univ. of Colorado Sch. of Med.*
- 11:00 GG21 **723.08** Fine spatial representation of interaural level differences in the auditory cortex: A two-photon imaging study. M. PANNIELLO; A. J. KING; J. C. DAHMEN; K. M. WALKER*. *Univ. of Oxford.*
- 8:00 GG22 **723.09** The mouse medial superior olive. R. M. BURGER; M. J. FISCHL; O. ALEXANDROVA; I. D. FORSYTHE; C. KOPP-SCHNEIPFLUG*. *Lehigh Univ., LMU Munich, Univ. of Leicester.*
- 9:00 GG23 **723.10** Effects of interaural delay on human cortical processing of changes in interaural correlation. L. KONG; R. NING; X. ZHANG; M. WANG*. *Dept. of physiology and pharmacology, Univ. of Calgary, Sch. of Psychology, Beijing Key Lab. of Applied Exptl. Psychology.*
- 10:00 GG24 **723.11** Task-related attention affects the cortical processing of auditory spatial cues. N. C. HIGGINS*; G. C. STECKER. *Vanderbilt Univ.*
- 11:00 GG25 **723.12** Characterization of interaural differences in electrical firing patterns of unsynchronized bilateral cochlear-implant processors. F. A. RODRIGUEZ CAMPOS*; M. J. GOUELL. *Univ. of Maryland.*
- 8:00 GG26 **723.13** Ephaptic effects alter spiking in a model of coincidence detector neurons in auditory brainstem. J. H. GOLDWYN*; J. RINZEL. *New York Univ., Courant Inst. of Mathematics.*
- 9:00 GG27 **723.14** A model of sound source localization based on frequency dependent ITD processing. P. YGER*; V. BENICHOX; R. BRETTE. *Inst. De La Vision.*

POSTER

724. Multisensory: Cross-Modal Processing in Humans

Theme D: Sensory and Motor Systems

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

- 8:00 GG28 **724.01** Visual, auditory and somatosensory long-latency evoked potentials in patients with diabetes mellitus 2. O. H. HERNANDEZ*; R. GARCIA-MARTINEZ; L. AGUIRRE-MANZO; F. YE-EHUAN; G. MALDONADO-VELAZQUEZ; C. G. KU-MENDEZ. *Hospital General De Especialidades Dr. Javier Buenfil Osorio, Universidad Autonoma De Campeche.*
- 9:00 GG29 **724.02** Visuo-tactile interactions are dependent on the predictive value of the visual stimulus. M. KANDULA*; D. HOFMAN; C. DIJKERMAN. *Utrecht Univ.*
- 10:00 GG30 **724.03** Dual site TMS as a tool to investigate fronto-parietal connectivity during the rubber hand illusion. A. KARABANOV*; A. RITTERBAND-ROSENBAUM; M. SCHRAM CHRISTENSEN; H. SIEBNER; J. NIELSEN. *Hvidovre Hosp., Univ. of Copenhagen, Aarhus Univ., Hvidovre Hosp.*
- 11:00 GG31 **724.04** Modulation of sensorimotor integration by rubber hand illusion assessed with transcranial magnetic stimulation. R. ISAYAMA*; G. JEGATHEESWARAN; M. VESIA; B. ELAHI; C. GUNRAJ; L. CARDINALI; A. FARNE; R. CHEN. *Toronto Western Res. Inst., Univ. of Toronto, Univ. of Toronto, Univ. of Western Ontario, Lyon Neurosci. Res. Ctr.*
- 8:00 GG32 **724.05** Random noise stimulation of the cortex: Does stochastic resonance enhance central mechanisms of perception? O. L. VAN DER GROEN*; N. WENDEROTH. *ETH Zürich, Neural Control of Movement Lab., ETH Zürich, Neural Control of Movement Lab.*
- 9:00 GG33 **724.06** The visual cortex is not exclusively visual, and plays a critical role in tactile Braille reading. fMRI, resting-state fMRI and TMS evidence from sighted Braille readers. L. BOLA; K. SIUDA; M. PAPLINSKA; E. SUMERA; K. JEDNOROG; A. MARCHEWKA; M. SLIWINSKA; M. F. SZWED*. *Jagiellonian Univ., equally contributing authors, Acad. of Special Educ., Inst. for the Blind and Partially Sighted Children, Nencki Inst. of Exptl. Biol., Nencki Inst. of Exptl. Biol., Univ. Col. London, Dept of Psychology, Jagiellonian Univ.*
- 10:00 GG34 **724.07** Neural correlates of auditory-tactile integration in meter perception: An EEG study. T. WU; J. HUANG*; S. HSIAO; X. WANG. *Tsinghua Univ., Johns Hopkins Univ., Johns Hopkins Univ.*
- 11:00 GG35 **724.08** Scaling the scene: Influence of vestibular and visual depth cues on translational self motion perception. A. TER HORST*; M. KOPPEN; P. MACNEILAGE; L. P. J. SELEN; W. P. MEDENDORP. *Radboud Univ. Nijmegen, Donders Ctr. For Cognition, Univ. Hosp. of Munich.*
- 8:00 GG36 **724.09** Audio-motor interactions in the resting state. M. URBIN*; K. ZINN; X. HONG; A. CARTER. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*
- 9:00 HH1 **724.10** Resting state functional connectivity networks involved in visual processing of body-part and scene stimuli. K. GOPINATH*; S. LACEY; R. STILLIA; K. SATHIAN. *Emory Univ., Emory Univ., Emory Univ., Emory Univ., Atlanta VAMC.*
- 10:00 HH2 **724.11** Feeling your touch: Spatial frames of reference and subtypes of mirror-touch synesthesia. J. MEDINA*; C. DEPASQUALE. *Univ. of Delaware, Univ. of Delaware.*

Wed. AM

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 HH3 **724.12** ▲ The role of therapy ball seating on classroom performance: Understanding the physiological mechanisms. M. E. BURGOYNE*; C. J. KETCHAM. *Elon Univ.*
- 8:00 HH4 **724.13** fNIRS and fMRI signals are concordant during a bipedal motor task. J. A. NOAH*; Y. ONO; Y. NOMOTO; S. SHIMADA; A. TACHIBANA; X. ZHANG; S. BRONNER; J. HIRSCH. *Yale Sch. of Med., Meiji Univ., Dokkyo Med. Univ. Sch. of Med., Northeastern Univ., Yale Sch. of Med.*
- 9:00 HH5 **724.14** The effect of naturalistic versus robotic speech on multisensory processing: Applications for individuals with autism spectrum disorder (ASD). F. SARTORATO*; L. PRZYBYLOWSKI; D. K. SARKO. *Edward Via Col. of Osteo. Med., Edward Via Col. of Osteo. Med.*
- 10:00 HH6 **724.15** Investigating implicit crossmodal decoding of body-voice emotion using multivariate pattern analysis. R. WATSON*; B. DE GELDER. *Dept. of Cognitive Neuroscience, Maastricht U.*
- POSTER**
- 725. Retinal Circuitry**
- Theme D: Sensory and Motor Systems**
- Wed. 8:00 AM – Walter E. Washington Convention Center, Halls A-C
- 8:00 HH7 **725.01** Development of dendrites in a direction-selective ganglion cell in the mouse retina. J. LIU*; J. R. SANES. *Harvard Univ., Harvard Med. Sch.*
- 9:00 HH8 **725.02** Roles of protocadherin-mediated self-avoidance and self/non-self discrimination in retinal circuit function. D. KOSTADINOV*; J. R. SANES. *Harvard Univ., Harvard Univ.*
- 10:00 HH9 **725.03** Sidekick 2 directs formation of a non-canonical OFF pathway required for function of an object motion selective circuit. A. KRISHNASWAMY*; M. YAMAGATA; X. DUAN; J. R. SANES. *Harvard Univ., Harvard Univ.*
- 11:00 HH10 **725.04** Cadherin 13 patterns synapses at mammalian cone photoreceptor terminals. S. SARIN*; M. YAMAGATA; J. R. SANES. *Harvard Univ.*
- 8:00 HH11 **725.05** Phosphorylation by PKC α in retinal rod bipolar cells. C. W. MORGANS; W. XIONG; M. TEKMEK; R. M. DUVOISIN*. *Oregon Hlth. & Sci. Univ.*
- 9:00 HH12 **725.06** Immunohistochemical localization of histamine receptor subtypes in the gerbil retina. H. IMADA; K. SAKAI; E. MIYACHI*. *Tokai Gakuin Univ., Fujita Hlth. Univ. Sch. Hlth. Sci., Fujita Hlth. Univ. Sch. Med.*
- 10:00 HH13 **725.07** A morphometric and transcriptional analysis of retinal ganglion cells in the prenatal macaque monkey. K. D. MURRAY*; D. A. VAN DER LIST; W. M. USREY. *Univ. California Davis, Univ. of California, Davis.*
- 11:00 HH14 **725.08** Multiple VIP-cre expressing amacrine cells in the mouse retina. N. C. BRECHA*; A. R. RODRIGUEZ; A. SOLOMON; L. PÉREZ DE SEVILLA MÜLLER; H. VUONG; K. SHEETS; B. WONG; S. BARNES. *David Geffen Sch. Med. At UCLA, Veterans Admin. Greater Los Angeles Hlth. Syst., Dalhousie Univ.*
- 8:00 HH15 **725.09** ▲ Bicarbonate-dependent, potassium-induced increase in proton flux at the endfoot of isolated Muller cells of the tiger salamander. D. SWYGART; M. OSBORN; B. SKINNER; E. NAYLOR; R. KAUFMAN; B. WILLIAMS; B. TCHERNOOKOVA; R. P. MALCHOW; M. A. KREITZER*. *Indiana Wesleyan Univ., Univ. of Illinois at Chicago.*
- 9:00 HH16 **725.10** Modulation of TRPM1 channel in ON bipolar cells by G-protein subunits. Y. XU; S. YANG; C. CHOI; L. BIRNBAUMER; N. VARDI*. *Jinan Univ., Natl. Institute of Environ. Hlth. Sci., Univ. Pennsylvania Sch. Med.*
- 10:00 HH17 **725.11** Subunit specific expression of glycine receptors in mouse retinal ganglion cells. C. ZHANG*; M. A. MCCALL. *Dept of ASNB, Univ. of Louisville, Univ. of Louisville.*
- 11:00 HH18 **725.12** Role of connexin channels in retinal synaptic transmission in a diurnal rodent. A. V. PALACIOS*; A. PALACIOS-MUNOZ; A. VIELMA; J. ARAYA; A. ASTUDILLO; G. VALDIVIA; J. HURTADO; O. SCHMACHTENBERG; A. D. MARTINEZ; M. ESCOBAR. *Univ. de Valparaíso, Univ. Técnica Federico Santa María.*
- 8:00 HH19 **725.13** A nitric oxide-dependent increase in cytosolic calcium enhances spontaneous and evoked GABAergic synaptic transmission in retinal amacrine cells. J. W. MADDOX*; E. GLEASON. *Louisiana State Univ.*
- 9:00 HH20 **725.14** Bilateral intrinsically photosensitive retinal ganglion cells contribute to the symmetric input of the suprachiasmatic nucleus. Y. CHANG*; C. LEE; S. CHEN. *Natl. Taiwan Univ.*
- 10:00 HH21 **725.15** Immunocytochemical analysis of intrinsically photosensitive retinal ganglion cells in zebrafish. Y. HUH*; J. LEE; M. JEONG; H. KIM; C. JEON. *Kyungpook Natl. Univ., KNU Creative BioResearch Group (BK21), Kyungpook Natl. Univ.*
- 11:00 HH22 **725.16** Comparative analysis of the endocannabinoid system distribution pattern in the retina of mice, tree shrews, and monkeys. J. M. BOUSKILA*; P. JAVADI; L. ELKRIEF; C. CASANOVA; J. BOUCHARD; M. PTITO. *Univ. of Montreal, Univ. of Montreal, McGill Univ.*
- 8:00 HH23 **725.17** Melanopsin, rod and cone pathways independently mediate migraine-related light aversion in mice. A. MATYNIA*; J. KESSLER; E. NGUYEN; S. PARIKH; A. RODRIGUEZ; N. BRECHA; M. B. GORIN. *UCLA, UCLA, UCLA.*
- 9:00 HH24 **725.18** Melanopsin expressing retinal ganglion cells connect to amacrine cells by intra-retinal axon collateral. P. YEH*; S. CHEN. *Natl. Taiwan Univ.*
- 10:00 HH25 **725.19** Activity-dependent development of W3 RGC dendritic structure and synaptic function. N. TIAN*; E. M. ELIAS; P. WANG. *Univ. of Utah.*
- 11:00 HH26 **725.20** The differential expression of calcium binding proteins in starburst amacrine cells of rabbit retina. J. LEE; M. JEONG; Y. GU; E. LEE; C. JEON*. *Kyungpook Nat'l Univ., KNU Creative BioResearch Group (BK21), Kyungpook Natl. Univ.*
- 8:00 HH27 **725.21** RGCs can be molecularly divided into three classes before connectivity has developed. K. MARTINEZ*; A. NISTORICA; N. SWEENEY; D. FELDHEIM. *UCSC.*

POSTER

726. Visual Motion

Theme D: Sensory and Motor Systems

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

- 8:00 HH28 **726.01** Revealing columnar-level neural correlates of perceptual switches in area hMT using fMRI at 7 Tesla. R. GOEBEL*; A. T. VU; V. G. KEMPER; M. CASTELO-BRANCO; K. UGURBIL; F. DE MARTINO; E. YACOB. *Fac. of Psychology and Neurosci., Univ. of Minnesota Med. Sch., Fac. of Med.*
- 9:00 HH29 **726.02** Propagating wave of activity in V1 induced by simultaneous counterchange of luminance at adjacent stimulus locations. S. REKAUZEK*; N. NORTMANN; G. ZURAWEL; I. AYZENSHTAT; H. SLOVIN; D. JANCKE. *Ruhr-Univ Bochum, Bar Ilan Univ.*
- 10:00 HH30 **726.03** Perception and smooth pursuit of vertical acceleration and deceleration. A. S. MUELLER*; E. G. GONZÁLEZ; C. MCNORGAN; M. J. STEINBACH; B. TIMNEY. *Univ. of Western Ontario, Toronto Western Hosp., Univ. of Toronto, Univ. at Buffalo, State Univ. of New York.*
- 11:00 HH31 **726.04** Using MVPA to probe the role of V1 in pattern motion processing. B. VAN KEMENADE*; K. SEYMOUR; T. CHRISTOPHEL; M. ROTHKIRCH; P. STERZER. *Philipps-University Marburg, Macquarie Univ., Bernstein Ctr. for Computat. Neurosci., Campus Charité Mitte, Charité-Universitätsmedizin Berlin.*
- 8:00 HH32 **726.05** Response properties of individual visual cortex neurons to different types of commonly used motion stimuli. W. DANG*; P. MAIRE; H. M. PETRY. *Univ. of Louisville.*
- 9:00 II1 **726.06** Neural correlates of complex motion signals in larval zebrafish. J. E. FITZGERALD*; R. PORTUGUES; F. ENGERT. *Harvard Univ., Harvard Univ., Max Planck Inst. of Neurobio.*
- 10:00 II2 **726.07** Neuronal basis for an appropriate behavioral response to unapparent wide-field motion in *Drosophila melanogaster*. Y. SUZUKI*; T. AONISHI; Y. SEKI; H. MIYAKAWA; T. MORIMOTO. *Tokyo Inst. of Technol., JSPS Res. Fellow, Tokyo Univ. of Pharm. and Life Sci.*
- 11:00 II3 **726.08** Adaptive changes of contrast sensitivity in context adaptation vs. point adaptation. A. PAWAR*; T. D. ALBRIGHT; S. GEPSHTEIN. *Salk Inst.*
- 8:00 II4 **726.09** Responses of MT/MST neurons elicited by dual-grating stimulus: Differences between areas MT and MST. K. MIURA*; N. INABA; Y. AOKI; K. KAWANO. *Grad. Schl Med, Kyoto Univ.*
- 9:00 II5 **726.10** Correlation in temporal switching of bistable perception between static and dynamic visual stimuli. W. CHOI*; S. AN; S. PAIK. *KAIST.*
- 10:00 II6 **726.11** Two mechanisms are required to explain Ocular-Following Responses (OFRs) in humans to white noise stimuli. B. M. SHELIGA*; C. QUAIA; E. J. FITZGIBBON; B. G. CUMMING. *Natl. Eye Inst/NIH.*
- 11:00 II7 **726.12** Repetition suppression in macaque superior temporal sulcus (STS) for dynamic visual stimuli depicting hand actions. P. KURAVI*; V. CAGGIANO; M. A. GIESE; R. VOGELS. *K.U.Leuven, MIT, Hertie Inst. for Clin. Brain Res.*
- 8:00 II8 **726.13** Dynamic and distributed encoding of transparently moving stimuli in cortical area MT. X. HUANG*; J. XIAO. *Univ. of Wisconsin - Madison, Univ. of Wisconsin - Madison.*
- 9:00 II9 **726.14** Single-cell response properties of direction-selective neurons in monkey V2. J. HU*; S. ZHU; Y. FANG; P. LI; M. CHEN; C. HAN; H. XU; H. D. LU. *SKLCLN, Beijing Normal Univ., Inst. of Neuroscience, CAS.*
- 10:00 II10 **726.15** Motion integration across local fields: An illusion analogous to the barber-pole effect. Y. M. HSU*; Y. PEI. *Chang Gung Mem. Hosp. At Linkou, Chang Gung Univ.*
- 11:00 II11 **726.16** Perceptual integration of local motion signals. E. I. NITZANY*; J. D. VICTOR. *Cornell Univ., Weill Cornell Med. Col.*
- 8:00 II12 **726.17** Detecting moving objects based on cue conflict between disparity and motion parallax: Behavior and physiology. H. R. KIM*; D. E. ANGELAKI; G. C. DEANGELIS. *Univ. of Rochester, Baylor Col. of Med.*
- 9:00 II13 **726.18** A cortex-dependent motion discrimination task in head-fixed mice. T. G. MARQUES*; R. F. DIAS; L. PETREANU. *Champalimaud Ctr. For the Unknown.*
- 10:00 II14 **726.19** Similarities and differences between human and non-human primate stereomotion processing networks. S. VAN STIJN*; R. DEICHMANN; W. SINGER; H. S. LEE. *Ernst Strüngmann Inst. (ESI) In Cooperation With Max Planck Society, Brain Imaging Ctr., Max Planck Inst. for Brain Res.*
- 11:00 II15 **726.20** Early color deprivation enhances motion sensitivity in mature primary visual cortex (V1). S. D. VAN HOOSER*; E. N. JOHNSON; H. M. PETRY. *Brandeis Univ., Duke Univ., Univ. of Louisville.*
- 8:00 II16 **726.21** Functional connectivity dynamic changes with visual neural activity in zebrafish optic tectum. M. M. MA*; L. ZUXIANG. *Inst. of Biophysics, Chinese Acad. of Sci.*
- 9:00 II17 **726.22** Transient responses in area MT correlate with speed-change detection performance. A. TRASCHÜTZ; A. K. KREITER; D. WEGENER*. *Univ. of Bremen, Univ. of Bonn, Univ. of Bremen.*
- 10:00 II18 **726.23** Behavioral genetic investigation of columnar circuits for motion vision in *Drosophila*. S. WU*; A. NERN; G. M. RUBIN; M. B. REISER. *HHMI/Janelia Farm Res. Campus.*
- 11:00 II19 **726.24** Inhibitory stabilization underlies surround suppression in visual motion processing. C. C. PACK*; L. D. LIU; K. D. MILLER. *McGill Univ., Columbia Univ.*
- 8:00 II20 **726.25** The emergence of cohorts of active neurons in random recurrent networks provides the mechanism for acquiring orientation and direction selectivity. D. TSIGANKOV*; M. KASCHUBE. *Frankfurt Inst. For Advanced Studies.*
- 9:00 II21 **726.26** Improved assessment of Optocollic Reflex parameters for measuring visual performance in birds and other animals. J. A. BARNES; T. KUTROWSKI; N. ALDOUMANI; T. MEYDAN; J. T. ERICHSEN*. *Cardiff Univ., Cardiff Univ.*
- 10:00 II22 **726.27** How praying mantids solve the motion correspondence problem. G. TARAWNEH; L. JONES; C. ROWE; C. RIND; J. C. READ*. *Newcastle Univ.*
- 11:00 II23 **726.28** ▲ Modeling adaptive temporal integration in direction selective cortical neurons. J. GILE*; W. BAIR. *Univ. of Washington, Univ. of Washington.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 II24 **726.29** Correlator motion detection for natural stimuli. H. HAFIZI*; S. R. SINHA; R. R. DE RUYTER VAN STEVENINCK. *Indiana Univ.*
- 9:00 II25 **726.30** Velocity selective mechanisms for fast and slow visual motion studied by psychophysics and fMRI. I. KURIKI*; Y. YAMADA; K. MATSUMIYA; S. SHIOIRI. *Tohoku Univ., Tohoku Univ.*

POSTER

727. Nociceptors: Anatomical and Physiological Studies

Theme D: Sensory and Motor Systems

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

- 8:00 II26 **727.01** Differential TTX-sensitivity along C fiber axons of mice and non-human primates. A. H. KLEIN*; T. V. HARTKE; R. DE COL; R. CARR; M. SCHMELTZ; J. MANKOWSKI; F. BOSMANS; M. RINGKAMP. *Johns Hopkins, Univ. of Heidelberg, Johns Hopkins, Johns Hopkins.*
- 9:00 II27 **727.02** ● Human sensory neurons: Sodium and potassium channel conductances underlying excitability. B. A. COPITS*; S. DAVIDSON; J. ZHANG; G. PAGE; A. GHETTI; R. W. GEREAU, IV. *Washington Univ. Sch. of Med., AnaBios.*
- 10:00 II28 **727.03** Classification and characterization of vascular afferents in the rat. B. Y. COOPER*; T. J. NUTTER; V. P. DUGAN; R. D. JOHNSON. *Univ. Florida, Univ. Florida, Univ. Florida.*
- 11:00 II29 **727.04** Nerve injury increases cAMP sensor Epac1 and Epac2 in the distinct subgroups of DRG neurons. M. MATSUDA*; S. YAMAKITA; Y. YAMAGUCHI; Y. IZUMI; M. SASAKI; F. AMAYA. *KPUM.*
- 8:00 II30 **727.05** Neuronal Fc-epsilon receptor I contribute to antigen-specific pruritus in a mouse model of allergic conjunctivitis. F. LIU; H. JIANG; X. SHEN; Z. CHEN; L. XU; N. CHEN; M. ZHOU; C. LI; T. WANG; B. YUAN; Y. XIE; C. MA*. *Peking Union Med. Col. & Chinese Acad. of Med. Sci., Yale Univ. Sch. of Med.*
- 9:00 JJ1 **727.06** Tyrosinase-dependent peripheral dopamine production mediates baseline pain sensation. K. ONO*; C. T. VIET; D. DANG; Y. YE; B. L. SCHMIDT. *New York Univ. Col. of Dent.*
- 10:00 JJ2 **727.07** Increased non-peptidergic intraepidermal fiber density and an expanded subset of chloroquine-responsive trigeminal neurons in a model of dry skin itch. M. V. VALTCHEVA*; V. K. SAMINENI; J. P. GOLDEN; R. W. GEREAU, IV; S. DAVIDSON. *Washington Univ. in St. Louis.*
- 11:00 JJ3 **727.08** ● Botulinum neurotoxin type A is selective for specific subpopulations of sensory neurons in rat DRG cultures. C. RHEAUME*; M. S. BROWN; K. R. AOKI; J. FRANCIS; R. S. BROIDE. *Allergan Inc.*
- 8:00 JJ4 **727.09** Temporal histological changes in rat hind paw skin following cast immobilization. Y. SEKINO*; J. NAKANO; Y. HAMAUE; S. CHUGANJI; J. SAKAMOTO; T. YOSHIMURA; T. ORIGUCHI; M. OKITA. *Nagasaki Univ. Grad. Sch. of Biomed., Nagasaki Univ. Grad. Sch. of Biomed. Sci.*
- 9:00 JJ5 **727.10** Electrophysiological characteristics of chloroquine-sensitive dorsal root ganglion neurons in rats. J. YAGI*; Y. KOBAYASHI; N. HIRAI; Y. OHKI. *Kyorin Univ. Sch. Med., Natl. Def Med. Col.*

- 10:00 JJ6 **727.11** Stress hormone regulation of neuron specificity of herpes simplex virus type 1 and type 2 infection. A. IVES*; A. S. BERTKE. *Integrated Life Sci. Building, Virginia Tech.*
- 11:00 JJ7 **727.12** GTP-dependent run-up of Piezo2-type mechanically activated currents in rat dorsal root ganglion neurons. Z. JIA; R. IKEDA*; J. LING; J. GU. *The Univ. of Cincinnati Col. of Med.*
- 8:00 JJ8 **727.13** Mechanisms underlying the transduction and encoding of tactile stimuli in Merkel discs of mammals. R. IKEDA; M. CHA; J. LING; Z. JIA; D. COYLE; J. GU*. *Univ. Cincinnati Col. of Med.*
- 9:00 JJ9 **727.14** Gene transfer mediated by sciatic nerve delivery of AAV5-GFP and AAV5-VGF vectors. M. S. RIEDL*; J. A. DYKSTRA; K. F. KITTO; W. LIN; S. SALTON; C. A. FAIRBANKS; L. VULCHANNOVA. *Univ. Minnesota, Univ. of Minnesota, Icahn Sch. of Med. at Mt Sinai, Univ. Minnesota.*
- 10:00 JJ10 **727.15** ▲ Limited incidence of tyrosine hydroxylase-expressing C-fiber low-threshold mechanoreceptors in the first two weeks of postnatal development of mouse. R. M. LAM*; S. HOCHMAN; M. A. SAWCHUK. *Emory Univ.*

POSTER

728. Thalamic and Cortical Processing

Theme D: Sensory and Motor Systems

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

- 8:00 JJ11 **728.01** Chronic pain and thalamic abnormalities following blast-TBI in awake rats. A. S. PARIHAR*; K. KELEDJIAN; V. GERZANICH; J. M. SIMARD; A. KELLER. *Univ. of Maryland, Baltimore, Univ. of Maryland.*
- 9:00 JJ12 **728.02** Increase of local field potential in the ventral posterior medial nucleus of the thalamus by activation of chemorhodopsin. J. N. STRAND*; X. ZOU; A. LI; A. L. HARRIS; M. M. KAJUMBA; Y. B. PENG; L. L. BELLINGER; P. KRAMER. *Univ. of Texas At Arlington, Texas A&M Univ. Baylor Col. of Dent.*
- 10:00 JJ13 **728.03** Increased local field potential activity in the anterior cingulate cortex (ACC) in response to inflammatory and mechanical stimulation in freely moving rats. A. HARRIS*; A. LI; M. M. KAJUMBA; X. YANG; J. CHIAO; Y. B. PENG*. *The Univ. of Texas At Arlington, Univ. of Texas at Arlington, yangxiaofei@mail.hust.edu.cn.*
- 11:00 JJ14 **728.04** Local field potentials of the central nucleus of the amygdala (CeA) induced by formalin injection. M. KAJUMBA*; A. LI; A. HARRIS; X. YANG; J. CHIAO; Y. B. PENG. *Univ. of Texas At Arlington, Huazhong Univ. of Sci. and Technol., Univ. of Texas at Arlington.*
- 8:00 JJ15 **728.05** 5-HT_{2C}R knockdown in the amygdala inhibits abnormal neuronal activity in neuropathic rats. G. JI*; T. A. GREEN; V. NEUGEBAUER. *Univ. Texas Med. Br., Univ. Texas Med. Br.*
- 9:00 JJ16 **728.06** The local field potential in the medial prefrontal cortex in response to peripheral nerve stimulation. A. LI*; A. HARRIS; M. KAJUMBA; X. YANG; J. CHIAO; Y. PENG. *Univ. of Texas at Arlington, Huazhong Univ. of Sci. and Technol.*

- 10:00 JJ17 **728.07** T-type calcium channel modulator Z944 normalizes cortical power, thalamocortical synchrony, and nociceptive behaviors in a rat model of neuropathic pain. B. W. LEBLANC*; T. LII; L. VERA-PORTOCARRERO; M. LEE; G. SHORT; C. SAAB. *Rhode Island Hosp., Medtronic, Inc., Zalicus, Inc., Brown Univ.*
- 11:00 JJ18 **728.08** Role of reticular thalamic neurons in formalin induced nociception. Y. HUH*; J. CHO. *Korea Inst. of Sci. and Technol., KIST.*
- 8:00 JJ19 **728.09** Cortical dissociation of neuropathic pain components: Role of the anterior cingulate cortex and of the posterior insula. M. BARROT*; F. BARTHAS; J. SELLMIEJER; S. HUGEL; I. YALCIN. *INCI - CNRS UPR3212.*
- 9:00 JJ20 **728.10** *In vivo* neural recording from ventral posterolateral thalamus and primary somatosensory cortex in the pain pathway during electrical stimulation on anterior cingulate cortex. T. KANG*; C. IM; Y. CHO; H. YOO; K. KIM; S. JUN. *Ewha Womans University, Seoul, Korea, Hallym Univ., Yonsei Univ.*
- 10:00 JJ21 **728.11** 5-HT2CR knockdown in the amygdala alleviates pain-related behaviors in neuropathic rats. V. NEUGEBAUER*; T. A. GREEN; G. JI. *Univ. Texas Med. Br., Univ. Texas Med. Br.*
- 11:00 JJ22 **728.12** Group II mGluR modulates synaptic transmission in the rat medial prefrontal cortex in a pain model. T. KIRITOSHI*; V. NEUGEBAUER. *Univ. Texas Med. Br.*
- 8:00 JJ23 **728.13** Cell-specific adaptations in the nucleus accumbens are critical for neuropathic pain. W. REN*; S. BERGER; M. V. CENTENO; Y. WU; X. NA; X. LIU; D. J. SURMEIER; M. MARTINA; A. V. APKARIAN. *Northwestern Univ., Sun Yat-Sen Univ.*
- 9:00 JJ24 **728.14** Neurons in the dysgranular region of rat sensorimotor cortex respond to thermoneutral stimuli and play a key role in second/slow pain processing. O. V. FAVOROV*; J. T. RAMSHUR; T. D. CHALLENGER; R. S. WATERS. *Univ. North Carolina, Univ. of Memphis, North Carolina State Univ., Univ. of Tennessee.*
- 10:00 JJ25 **728.15** Differences in fMRI activation of visual areas during a visuomotor task in individuals with or without migraine. A. CONFORTO*; M. F. P. PERES; A. L. GONÇALVES; J. P. P. PERES; V. GUENDLER; E. AMARO JR. *Hosp. Das Clínicas/São Paulo Univ. and Inst. Israelita De Ensino E P, Hosp. Israelita Albert Einstein, Hosp. Israelita Albert Einstein.*
- 10:00 JJ28 **729.03** ● Mechanisms of headache frequency reduction in high frequency migraineurs by nasal oxytocin. D. C. YEOMANS*; A. TZABAZIS. *Stanford Univ., Stanford Univ.*
- 11:00 JJ29 **729.04** Voluntary exercise and weight control attenuate nociceptive hypersensitivity in a rat model of rheumatoid arthritis. M. H. PITCHER*; I. Z. RAUF; M. C. BUSHNELL. *NIH.*
- 8:00 JJ30 **729.05** Endogenous agmatine modulates synaptic plasticity in spinal cord dorsal horn. J. J. WAATAJA*; K. F. KITTO; C. D. PETERSON; S. A. SCHNELL; C. A. FAIRBANKS; G. L. WILCOX. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*
- 9:00 JJ31 **729.06** Transcranial direct current stimulation specifically reduces the area of secondary hyperalgesia induced by the capsaicin-heat pain model. T. J. MEEKER*; M. L. KEASER; J. D. GREENSPAN. *Univ. of Maryland, Baltimore, Univ. of Maryland, Baltimore.*
- 10:00 JJ32 **729.07** The novel biologic IL4-10 synerkine is a potent inhibitor chronic pain. N. EIJKELKAMP*; A. KAVELAARS; C. STEEN-LOUWS; S. A. Y. HARTGRING; H. L. D. M. WILLEMEN; Q. MAO-YING; E. C. HACK; J. A. G. VAN ROON; C. J. HEIJNEN. *Univ. Med. Ctr. Utrecht, The Univ. of Texas M.D. Anderson Cancer Ctr., Univ. Med. Ctr. Utrecht.*
- 11:00 JJ33 **729.08** ● ▲ Study on change of threshold triggered by weak stimulation of skin. S. FUKASAWA*; S. IDE; H. EDA. *Grad. Sch. For GPI, TOYORESIN corporation, The Grad. Sch. for the Creation of New Photonics Industries.*
- 8:00 JJ34 **729.09** Participation in a group pain management programme modulates cortical response to cold pressor pain, measured using EEG. N. HYLANDS-WHITE*; S. D. MAYHEW; R. L. ASHFORD; J. H. RAPHAEL. *Birmingham City Univ., The Univ. of Birmingham, NHS Dudley group of hospitals.*
- 9:00 JJ35 **729.10** Electroacupuncture combined with milnacipran enhances anti-allodynia and anti-hyperalgesia in neuropathic rats. S. KOO*; C. LI; B. JI; J. LEE. *Pusan Natl. Univ.*
- 10:00 JJ36 **729.11** The effect of transcutaneous electrical nerve stimulation on monosodium iodoacetate-induced osteoarthritic pain in rats. S. HAHM*; J. YEA; T. KIM; E. KIM; E. SONG; Y. YOON; J. KIM. *Korea Univ., Korea Univ., Korea University, Grad. Sch., Korea Univ.*
- 11:00 KK1 **729.12** Functional imaging and spinal cord stimulation for chronic neuropathic pain: A systematic review. L. BENTLEY*; R. DUARTE; J. RAPHAEL; P. FURLONG; R. ASHFORD. *Birmingham City Univ., Russells Hall Hosp., Aston Univ.*
- 8:00 KK2 **729.13** Targeting KCNQ channels to prevent spinal cord injury-induced chronic pain. Q. YANG*; Z. WU; J. HADDEN; R. GRILL; E. WALTERS. *Univ. of Texas Hlth. Sci. Ctr., The Scripps Res. Inst.*
- 9:00 KK3 **729.14** ● Computational model of high-frequency spinal cord stimulation for chronic pain management. S. F. LEMPKA*; K. KILGORE; C. MCINTYRE; A. MACHADO. *Cleveland Clin., Louis Stokes Cleveland Veterans Affairs Med. Ctr., MetroHealth Med. Ctr., Case Western Reserve Univ., Cleveland Clin.*
- 10:00 KK4 **729.15** Autoimmunity contributes to nociceptive sensitization in a mouse model of complex regional pain syndrome. W. LI*; T. GUO; X. SHI; E. CZIRR; T. STAN; P. SAHBAIE; T. WYSS-CORAY; J. CLARK; W. S. KINGERY. *Stanford Univ., VAPAHCS.*

POSTER

729. Treatments for Persistent Pain

Theme D: Sensory and Motor Systems

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

- 8:00 JJ26 **729.01** Dorsal column stimulation decreases the evoked local field Potential to high-threshold afferent inputs in superficial dorsal horn in rats. F. YANG*; Q. XU; V. TIWARI; S. HE; S. RAJA; X. DONG; Y. GUAN. *Johns Hopkins Sch. of Med., Johns Hopkins Univ.*
- 9:00 JJ27 **729.02** DRG transplantation of mesenchymal stem cells in adult rat: Potential and challenge for targeted cell therapy for neuropathic pain. H. YU*; G. FISCHER; A. D. EBERT; Q. H. HOGAN. *Med. Col. of Wisconsin, Med. Col. of Wisconsin, Med. Col. of Wisconsin.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 KK5 **729.16** Experimental gene therapy with serine-histogranin and endomorphin-1 for the treatment of neuropathic pain. C. E. GORDON; S. JERGOVA*; S. GAJAVELLI; J. SAGEN. *Univ. of Miami, Miller Sch. of Med.*
- 8:00 KK6 **729.17** The role of exercise in neuropathic pain. T. SHEAHAN*; B. A. COPITS; J. P. GOLDEN; R. W. GEREAU, IV. *Washington Univ. In St. Louis.*
- 9:00 KK7 **729.18** Influence of transcranial direct current stimulation of the dorsolateral prefrontal cortex on repeated pain stimulation -a single-blind, sham-controlled crossover study-. H. MAEOKA*; M. HIYAMIZU; A. MATSUO; S. MORIOKA. *Kio Univ.*
- 10:00 KK8 **729.19** Repetitive treatment with diluted bee venom relieves mechanical allodynia and restores intraepidermal nerve fiber loss in oxaliplatin-induced neuropathic mice. D. ROH*; J. YEO; S. YOON; S. KWON. *Kyung Hee Univ., Korea Inst. of Sci. and Technol. (KIST).*
- 11:00 KK9 **729.20** Spinal administration of B vitamins potentiates analgesic effect and attenuates acute and chronic tolerance of morphine treatment in mice. X. T. DENG*; Y. HAN; P. MA; C. JIANG; Q. LIU; W. LIU; X. SONG. *Neurosci. Res. Institute, Peking Univ., Ctr. for Pain Medicine, Peking Univ., Jiangsu Key Lab. of Neurodegeneration, Dept. of Pharmacology, Nanjing Med. Univ.*
- POSTER**
- 730. Pain Models: Pharmacology**
- Theme D: Sensory and Motor Systems**
- Wed. 8:00 AM – Walter E. Washington Convention Center, Halls A-C
- 8:00 KK10 **730.01** Constitutive activity of μ -opioid receptors suppresses hyperalgesia in complete Freund's adjuvant-induced Latent Sensitization. W. M. WALWYN*; H. KIM; H. ENNES; W. CHEN; J. MCROBERTS; J. G. MARVIZON. *UCLA, Veteran's Affairs Greater Los Angeles Healthcare Syst., UCLA, UCLA.*
- 9:00 KK11 **730.02** Dynorphin and negative affect in neuropathic pain. C. P. COOK*. *Univ. of California, Irvine.*
- 10:00 KK12 **730.03** Antihyperalgesic effect of intra-amygdala injected CDP-choline in neuropathic pain models. M. S. GURUN*; H. YUCEL-OZBOLUK; D. BAGDAS; D. GOK-YURTSEVEN; O. EYIGOR. *Uludag Univ. Med. Sch., Uludag Univ. Med. Sch., Uludag Univ. Med. Sch.*
- 11:00 KK13 **730.04** Peripherally-restricted cannabinoid receptor agonist suppresses chronic pain symptoms of cisplatin-induced peripheral neuropathy without central side effects. Y. Mulpuri; H. H. SELTZMAN; I. SPIGELMAN*. *UCLA Sch. of Dent., Res. Triangle Inst., UCLA.*
- 8:00 KK14 **730.05** Localization of glur1, glur4, ka2, and nmdar1 subunits in peripherin positive nerve fibers of the rat cornea. B. K. CARR*; K. E. MILLER. *Oklahoma State Univ. Ctr. For Hlth. Sci.*
- 9:00 KK15 **730.06** RI-58, an angiotensin (5-8) analog, modulates antinociception and is two orders of magnitude more potent than morphine. K. G. BORELLI*; M. A. JULIANO; L. M. GUETHE; T. C. D. DOMBROSKI; J. C. ROSA; W. A. PRADO; A. R. MARTINZ. *Univ. Sao Paulo, Inst. of Neurosciences and Behavior – INeC, Federal Univ. of Triângulo Mineiro, Federal Univ. of São Paulo, Federal Univ. of Rio de Janeiro.*
- 10:00 KK16 **730.07** Repetitive topical paeoniflorin inhibits the increase in saphenous nerve activity after paclitaxel administration and prevents paclitaxel-induced peripheral neuropathic pain. T. ANDOH*; N. KOBAYASHI; R. KITAMURA; Y. KURAISHI. *Univ. Toyama.*
- 11:00 KK17 **730.08** Opioid sparing effects of monoacylglycerol lipase inhibition in a murine model of neuropathic pain. J. L. WILKERSON*; M. J. NIPHAKIS; B. F. CRAVATT; A. H. LICHTMAN. *Virginia Commonwealth Univ. MCV, The Scripps Res. Inst.*
- 8:00 KK18 **730.09** Cancer-Induced bone pain in rat : Cellular, behavioral, pharmacological and medical imaging characterization. Y. DARBAKY; C. CHIRAT; V. MAFFRE; A. DUVAL; S. GOBRON; E. MIOLT-NOIRAUT; I. MILADI; D. BARRIÈRE; E. MIDAVAIN; P. SARRET; L. DIOP*. *ANS Biotech, Neuronax, INSERM UMR 990, Univ. d'Auvergne, Univ. de Sherbrooke, ANS Biotech.*
- 9:00 KK19 **730.10** Sciatic injury in the pigs- Can this model serve as a chronic model for Neuropathic Pain in large animals? S. B. MEILIN*; E. WILLENZ; O. DORON; O. BRENNER; D. CASTEL. *MD Biosci., Lahav Res. Inst., The Weizmann Inst. of Sci., The Neufeld Cardiac Res. Inst. and Dept. of Physiol. and Pharmacology, Sackler Sch. of Medicine, Tel-Aviv Univ.*
- 10:00 KK20 **730.11** Acetyl-L-carnitine attenuates hypersensitivity in an alcohol/high-fat diet induced rat chronic pancreatitis model. S. L. MCILWRATH; L. ZHANG; K. N. WESTLUND*. *Univ. Kentucky.*
- 11:00 KK21 **730.12** Assessment of the effect of sweet solution-induces analgesia in neonatal rats on acute pain threshold and cognitive functions during adulthood. K. NUSEIR*; K. ALZOUBI; J. ALABWAINI. *Jordan Univ. of Sci. and Technol.*
- 8:00 KK22 **730.13** Endocannabinoid system modulators reverse hyperalgesia associated with chronic stress in mice. E. LOMAZZO; L. BINDILA; F. KOENIG; C. SCHWITTER; U. HOHEISEL; B. LUTZ*. *Univ. Med. Ctr. Mainz, CBTM Med. Fac. Mannheim.*
- 9:00 KK23 **730.14** Antihyperalgesic effects of bupropion, a dopamine and noradrenaline reuptake inhibitor, in a rat model of neuropathic pain. H. HOSHINO; H. OBATA*; S. SAITO. *Dept. of Anesthesiology, Gunma Univ. Grad Sch. Med., Gunma Univ. Grad Sch. Med.*
- 10:00 KK24 **730.15** Increased P2X7 Receptor Activity in Trigeminal Ganglia of a mouse genetic model of familial hemiplegic migraine type-1. A. NOWODWORSKA; E. FABBRETTI; A. VAN DEN MAAGDENBERG; A. NISTRI*. *SISSA, Univ. of Nova Gorica, Leiden Univ. Med. Ctr.*
- 11:00 KK25 **730.16** Latent Sensitization of neuropathic pain in rats and mice - involvement of μ -opioid receptors. J. A. MCROBERTS*; H. KIM; A. MINASYAN; W. CHEN; H. S. ENNES; W. WALWYN; J. G. MARVIZON. *UCLA, Veteran Affairs Greater Los Angeles Healthcare Syst., UCLA.*
- 8:00 KK26 **730.17** μ -Opioid receptor knock-out mice only partially recover from hyperalgesia in Latent Sensitization - contribution of α 2A adrenergic and δ -opioid receptors to pain remission. J. G. MARVIZON*; H. KIM; W. WALWYN; A. MINASYAN; H. S. ENNES; W. CHEN; J. A. MCROBERTS. *UCLA, Veteran Affairs Greater Los Angeles Healthcare Syst.*

- 9:00 KK27 **730.18** Effects of fluor-fentanyl, a novel mu-opioid receptor agonist, in different models of injury-induced pain. A. RODRIGUEZ-GAZTELUMENDI; V. SPAHN; H. MACHELSKA; M. WEBER; O. SCHARKOI; C. STEIN*. *Charité-Universitätsmedizin, Zuse-Institut Berlin, Freie Univ. Berlin - Charité.*
- 10:00 KK28 **730.19** ● Inhibition of cyclooxygenases and the endocannabinoid enzyme monoacylglycerol lipase synergistically reduces neuropathic pain in mice. M. CROWE*; E. LEISHMAN; R. GUJJAR; A. MAHADEVAN; M. BANKS; H. BRADSHAW; S. G. KINSEY. *West Virginia Univ., Indiana Univ., Organix, Inc, Virginia Commonwealth Univ., West Virginia Univ.*
- 11:00 KK29 **730.20** Epigenetic mechanisms in chronic pain. G. DESCALZI*; D. TERZI; V. MITSU; F. B. CARR; S. GASPARI; V. ZACHARIOU. *Icahn Sch. of Med. at Mount Sinai, Univ. of Crete.*
- 8:00 KK30 **730.21** Participation of serotonergic system in the antinociceptive effect of intrathecal epicatechin in diabetic rats. G. C. VIDAL-CANTÚ*; G. BASTIDAS-QUIÑONEZ; V. GRANADOS-SOTO. *CINVESTAV IPN.*
- 9:00 KK31 **730.22** The role of oxytocin and vasopressin-1a receptors in the antinociceptive effects of peripheral oxytocin. A. GONZALEZ-HERNANDEZ*; G. ROJAS-PILONI; G. MARTINEZ-LORENZANA; M. CONDÉS-LARA. *Inst. de Neurobiología, UNAM.*
- 10:00 KK32 **730.23** ● AMPA potentiators as novel pharmacotherapy for relieving sensory and affective symptoms of persistent neuropathic and inflammatory pain. C. SU*; A. LE; M. LEE; A. ZOU; J. WANG. *NYU Med. Ctr., New York Univ. Sch. of Med., Columbia Univ.*
- 11:00 LL1 **730.24** THC and CBD attenuate but do not prevent cisplatin neuropathy in mice. H. M. HARRIS*; K. J. SUFKA; W. GUL; M. A. ELISOHL. *Univ. of Mississippi, Univ. of Mississippi, Univ. of Mississippi.*
- 8:00 LL2 **730.25** ● Comparison of three different analgesics as inhibitors of spontaneous nociceptor activity in a rat model of neuropathic pain. M. JONES*; M. SUMALLA; E. GARCIA; R. SOLA; J. SERRA. *Neurosci. Technologies UK, Neurosci. Technologies.*
- 9:00 LL3 **730.26** CB1KO mice unmask CB2-mediated antinociceptive efficacy of the mixed CB1/CB2 agonist CP55,940 in a mouse model of paclitaxel-induced neuropathy. L. DENG*; K. MACKIE; A. G. HOHMANN. *Indiana Univ., Indiana Univ., Indiana Univ., Indiana Univ.*
- 10:00 LL6 **731.03** Localization of touch on a replanted or transplanted hand: Evidence for late improvements that may reflect central adaptations. N. A. BAUNE*; B. A. PHILIP; C. L. KAUFMAN; J. E. KUTZ; S. H. FREY. *Univ. of Missouri, Christine M. Kleinert Inst.*
- 11:00 LL7 **731.04** ● ▲ Methods for specific electrode impedance measurement during transcranial direct current stimulation. N. KHADKA*; M. BIKSON; C. SARANTOS; A. RAHMAN; D. TRUONG. *The City Col. of New York, Univ. of California, Santa Barbara.*
- 8:00 LL8 **731.05** The effect of robotic reinforced movement learning technology on the development of prone mobility in infants at low and high risk for cerebral palsy. H. T. KOLOBE*; A. H. FAGG; P. PIDCOE; D. MILLER. *Univ. of Oklahoma Hlth. Sci. Ctr., Univ. of Oklahoma, Virginia Commonwealth Univ.*
- 9:00 LL9 **731.06** Brain responses to acupuncture stimulation in the prosthetic hand in an amputee patient. Y. CHAE*; I. LEE; W. JUNG; C. WALLRAVEN. *Kyung Hee Univ., Kyung Hee Univ., Korea Univ.*
- 10:00 LL10 **731.07** ActiGait-assisted walking induces neural plasticity in sensorimotor cortical areas. C. MERKEL*; L. BÜNTJEN; J. HAUSMANN; H. HEINZE; J. HOPF; M. A. SCHOENFELD. *Otto-von-Guericke Univ., Leibniz Inst. for Neurobio.*
- 11:00 LL11 **731.08** Tactile information processing associated with the primate hand is altered by motor cortex lesion. A. GINDRAT*; E. M. ROUILLER; A. GHOSH. *Univ. of Fribourg, Univ. of Zürich and ETH Zürich.*
- 8:00 LL12 **731.09** The lateralization of somatosensory information in human callosal dysgenesis. M. C. MONTEIRO*; J. ANDRADE; T. MARINS; I. BRAMATI; J. MOLL; R. DE OLIVEIRA-SOUZA; R. LENT; F. TOVAR-MOLL. *D'Or Inst. for Res. and Educ. (IDOR), Federal Univ. of Rio de Janeiro, D'Or Inst. for Res. and Educ.*
- 9:00 LL13 **731.10** Closed-loop brain-machine-body interface for noninvasive rehabilitation of movement disorders. F. D. BROCCARD*; T. MULLEN; Y. CHI; D. PETERSON; J. R. IVERSEN; M. ARNOLD; K. KREUTZ-DELGADO; T. JUNG; S. MAKEIG; H. POIZNER; T. SEJNOWSKI; G. CAUWENBERGHS. *UCSD, Univ. of California San Diego, Swartz Ctr. for Computat. Neuroscience, UCSD, Cognionics, Inc., Isoleader USA Inc., Salk Inst. for Biol. Studies.*
- 10:00 LL14 **731.11** Decoy receptor 3 treatment improves locomotor function recovery of spinal cord injured rats with a Th2-dominant microenvironment. C. CHIU*; W. HUANG; S. LIN; H. CHENG; S. HSIEH. *Neural Regeneration Lab, Veterans Gen. Hosp., Dept. and Inst. of Pharmacology, Natl. Yang-Ming Univ., Neural Regeneration Lab. and Ctr. for Neural Regeneration, Dept. of Neurosurgery, Neurolog. Institute, Taipei Veterans Gen. Hosp., Dept. and Inst. of Microbiology and Immunology, and Inst. of Clinical, Natl. Yang-Ming Univ.*
- 11:00 LL15 **731.12** ● Functional electrical stimulation for restoration of smile. D. MCDONNALL*; J. JONES; D. WARD. *Ripple, UNIVERSITY OF UTAH.*
- 8:00 LL16 **731.13** ● Relationship of motor and proprioceptive recovery after stroke. J. A. SEMRAU*; T. M. HERTER; S. H. SCOTT; S. DUKELOW. *Univ. of Calgary, Univ. of South Carolina, Queen's Univ.*

POSTER

731. Neurorehabilitation

Theme D: Sensory and Motor Systems

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

- 8:00 LL4 **731.01** Facilitating neurorehabilitation after pediatric traumatic brain injury using non-invasive TMS. H. LU; C. ROBERTSON; S. TONG; P. CELNIK; G. PELLEDD*. *Johns Hopkins Sch. of Med., Kennedy Krieger Inst., Shanghai Jiao Tong Univ., Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med.*
- 9:00 LL5 **731.02** Peripheral nerve injury suppresses synaptic long-term potentiation in rat somatosensory cortex. Y. YANG*; G. PELLEDD. *Johns Hopkins Sch. of Med., Kennedy Krieger Inst.*

* Indicated a real or perceived conflict of interest, see page 153 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 LL17 **731.14** • Predicting longitudinal changes in proprioception after stroke. S. E. FINDLATER*; J. A. SEMRAU; J. M. KENZIE; J. A. DESAI; T. M. HERTER; S. H. SCOTT; S. P. DUKELOW. *Univ. of Calgary, Univ. of Calgary, Univ. of South Carolina, Queen's Univ.*

POSTER

732. Spinal Cord Injury: Repair, Training, and Rehabilitation II

Theme D: Sensory and Motor Systems

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

- 8:00 LL18 **732.01** Interlimb communication: Short-latency crossed spinal reflexes in the biceps femoris following ipsilateral knee joint rotations in seated humans. A. J. STEVENSON*; S. S. GEERTSEN; T. SINKJÆR; J. B. NIELSEN; N. MRACHACZ-KERSTING. *Ctr. for Sensory-Motor Interaction, Aalborg Univ., Univ. of Copenhagen, Univ. of Copenhagen, Danish Natl. Res. Fndn.*
- 9:00 LL19 **732.02** Activation of 5-HT_{2A} receptors reduces both spasticity and neuropathic pain after spinal cord injury via an up-regulation of KCC2 function. L. R. VINAY*; P. BOULENGUEZ; C. BROCARD; A. VIALLAT-LIEUTAUD; S. LIABEUF; R. BOS. *CNRS & Aix-Marseille Univ.*
- 10:00 LL20 **732.03** Cervicomedullary evoked potentials are reduced following cast immobilization: Preliminary evidence for motoneuron hypoexcitability being mechanistically linked to muscle weakness. K. OKI*; M. NAKAZAWA; B. C. CLARK. *Ohio Univ., Ohio Univ.*
- 11:00 LL21 **732.04** Optimizing epidural spinal cord stimulation to improve forelimb motor function in rats after a cervical spinal cord injury. M. ALAM*; G. GARCIA-ALIAS; H. ZHONG; R. R. ROY; V. R. EDGERTON. *UCLA, Univ. of California Los Angeles (UCLA).*
- 8:00 LL22 **732.05** Regulation of autonomic control of bladder voiding after a complete spinal cord injury. P. GAD*; R. R. ROY; D. LU; Y. GERASIMENKO; V. EDGERTON. *Univ. Of California Los Angeles, UCLA, UCLA.*
- 9:00 LL23 **732.06** Characterization of spinal interneurons responsible for stepping in spinally transected mice. E. A. DALE*; M. NG; H. ZHONG; R. R. ROY; N. TILLAKARATNE; V. R. EDGERTON; J. KIM. *UCLA, Univ. of Puget Sound.*
- 10:00 LL24 **732.07** Spinal cord epidural electrical stimulation activates more lumbar motoneurons in adult spinal rats when combined with load-bearing activity. N. J. TILLAKARATNE*; P. O. DURU; M. S. XIAO; J. A. KIM; H. ZHONG; V. R. EDGERTON; R. R. ROY. *UCLA, UCLA, Univ. of Puget Sound.*
- 11:00 LL25 **732.08** Improvement in intralimb and interlimb coordination facilitated by spinal cord epidural stimulation and pharmacological interventions after paralysis in adult rats. H. ZHONG*; P. GAD; R. R. ROY; Y. GERASIMENKO; V. R. EDGERTON. *UCLA, UCLA, Pavlov Inst. of Physiol., UCLA, UCLA.*
- 8:00 LL26 **732.09** • Painless, noninvasive cutaneous stimulation enables voluntary movement and greater engagement of muscle activation when walking in the exoskeleton in a chronically paralyzed subject. V. EDGERTON*; P. GAD; S. ZDUNOWSKI; P. HAAKANA; A. TURNER; T. JUUTINEN; D. LU; Y. GERASIMENKO. *UCLA, UCLA, Univ. of Jyväskylä, UCLA, Pavlov Inst. of Physiol.*

9:00 LL27 **732.10** Effects of acute spinalization on neurons of spinal postural network. P. V. ZELENIN; V. F. LYALKA; L. HSU; G. N. ORLOVSKI; T. DELIAGINA*. *Karolinska Inst.*

10:00 LL28 **732.11** Neuroprotection by therapy with human embryonic stem cells overexpressing FGF2 following ventral root avulsion. M. R. ARAUJO*; A. B. SPEJO; R. S. FERREIRA JR; B. BARRAVIERA; S. KYRYLENKO; A. L. R. OLIVEIRA. *Univ. of Campinas, UNESP.*

11:00 MM1 **732.12** Phasic modulation of cutaneous reflexes during split-belt locomotion in intact and chronic spinalized adult cats. M. HURTEAU*; Y. THIBAUDIER; C. DAMBREVILLE; V. KUCZYNSKI; A. TELONIO; A. FRIGON. *Univ. De Sherbrooke.*

8:00 MM2 **732.13** The control of left-right coordination at slow locomotor speeds in chronic spinalized cats. C. DAMBREVILLE*; M. HURTEAU; Y. THIBAUDIER; V. KUCZYNSKI; A. TELONIO; A. FRIGON. *Univ. De Sherbrooke.*

9:00 MM3 **732.14** Spatiotemporal coordination during transverse split-belt locomotion in cats with bilateral serial hemisections of the spinal cord. Y. THIBAUDIER*; M. HURTEAU; C. DAMBREVILLE; A. CHRAIBI; A. TELONIO; A. FRIGON. *Univ. de Sherbrooke.*

10:00 MM4 **732.15** Optogenetic assessment of synaptic reconnection after spinal cord injury. N. JAYAPRAKASH*; Z. WANG; M. BLACKMORE. *Marquette Univ.*

11:00 MM5 **732.16** The role of corticospinal neurons in training induced grasping recovery after bilateral pyramidotomy. A. C. MOSBERGER*; A. GHOSH; J. C. MIEHLBRADT; A. WAHL; H. KASPER; M. WIECKHORST; A. JESKE; M. GULLO; M. E. SCHWAB. *Brain Res. Institute, Univ. of Zurich, D-HEST ETH Zurich, Inst. of Neuroinformatics.*

8:00 MM6 **732.17** Biomechanical observation of gait in rats with injury spinal cord. R. M. GOMEZ*; M. Y. SANCHEZ; J. J. NIÑO; K. A. GHOTME; D. VARGAS; M. F. QUIROZ; A. R. DOMINGUEZ. *Univ. De La Sabana, Inst. Politecnico Gran Colombiano, Univ. De La Sabana.*

9:00 MM7 **732.18** Effect of the swallowing reflex by stimulation of the red nucleus in rats. Y. SATOH*; K. TSUJI; T. TSUJIMURA; M. INOUE. *The Nippon Dent. Univ., Dysphagia Rehabil., Niigata Univ.*

10:00 MM8 **732.19** Spinal cord transection causes widespread decorrelation of channel and receptor mRNA below the injury site in a mouse model of spinal cord injury. M. D. ABBINANTI*; V. B. GARCIA; R. M. HARRIS-WARRICK; D. J. SCHULZ. *Cornell Univ., Univ. of Missouri-Columbia.*

11:00 MM9 **732.20** A behavioral test of hand function in New World monkeys. A. L. LILAK; J. GERONIMO; J. P. GARNER; K. IRVINE; C. J. DARIAN-SMITH*. *Stanford Univ. Sch. of Med., UCSF.*

8:00 MM10 **732.21** Effectiveness of inhibition of the repulsive guidance molecule, RGMA on the functional recovery following spinal cord injury in macaques. H. NAKAGAWA*; T. NINOMIYA; T. YAMASHITA; M. TAKADA. *Primate Res. Institute, Kyoto Univ., JST-CREST, Osaka Univ.*

9:00 MM11 **732.22** • Acute and chronic effect of serotonergic neuromodulatory circuitry activation on locomotor recovery following dual spinal lesion paradigm in mice. R. JEFFREY-GAUTHIER*; B. LEFEBVRE; H. LEBLOND. *Univ. Du Québec À Trois-Rivières.*

- 10:00 MM12 **732.23** Simulating the effects of spasticity and synergies after stroke with a biological neural model of the spinal circuitry. A. H. STIENEN*; A. C. SCHOUTEN; J. C. MCPHERSON; J. P. A. DEWALD. *Univ. of Twente, Northwestern Univ., Delft Univ. of Technol.*
- 11:00 MM13 **732.24** Spinal injury transforms how GABAergic system regulate nociceptive systems within the spinal cord: Role of KCC2. Y. HUANG*; K. H. LEE; J. W. GRAU. *Texas A&M Univ.*
- 8:00 MM14 **732.25** Peripheral inflammation disrupts locomotor recovery after spinal contusion injury. J. W. GRAU*; M. M. STRAIN; Y. HUANG; J. D. TURTLE; K. H. LEE; A. J. KOZICZ; B. S. PESEK; S. M. GARRAWAY. *Texas A&M Univ., Texas A&M Univ., Texas A&M Univ., Emory Univ. Sch. of Med.*
- 9:00 MM15 **732.26** Brain-derived neurotrophic factor reduces inflammation-induced allodynia in spinally transected rats. K. H. LEE*; K. M. BAUMBAUER; Y. HUANG; J. W. GRAU. *Texas A&M Univ., Univ. of Pittsburgh Sch. of Med.*
- 10:00 MM16 **732.27** Adaptive plasticity at the neuromuscular junction (NMJ). J. TURTLE*; L. M. MURPHY; M. M. STRAIN; K. C. HOY; D. S. K. MAGNUSON; J. W. GRAU. *Texas A&M Univ., MetroHealth Med. Center/Case Western Reserve Med. Sch., Univ. of Louisville Sch. of Med.*
- 11:00 MM17 **732.28** Multi-joint kinematic synergies stabilize hindlimb length and paw vertical coordinate during walking in the chronic spinal cat. A. N. KLISHKO*; M. A. LEMAY; M. L. LATASH; B. I. PRILUTSKY. *Georgia Inst. of Technol., Temple Univ., Penn State Univ.*
- 8:00 MM18 **732.29** Neuroprosthetic rehabilitation restores supraspinal control of movement after a severe acute and chronic contusion of the spinal cord. G. PIDPRUZHNYKOVA*; L. FRIEDLI; J. BEAUPARLANT; C. MARTINEZ-GONZALEZ; L. BAUD; S. DUIS; G. ULRICH; G. COURTINE. *Swiss Federal Inst. of Technol. (EPFL).*

POSTER

733. Cerebellum: Human Studies

Theme D: Sensory and Motor Systems

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

- 8:00 MM19 **733.01** Reconstruction and unfolding of the human cerebellar cortex from high-resolution post-mortem MRI. M. I. SERENO*; J. DIEDRICHSSEN; M. TACHROUNT; G. SILVA; C. I. DE ZEEUW. *Univ. Calif San Diego, Univ. Col. London, Univ. Col. London, Univ. Col. London, Royal Netherlands Acad. of Arts and Sci. (KNAW), Erasmus Med. Ctr.*
- 9:00 MM20 **733.02** Cerebellar lobule asymmetries correlate to corpus callosum size in left handers. R. E. ROSCH*; P. E. COWELL; J. M. GURD. *Magdalen College, Univ. of Oxford, King's Col. London, Univ. of Sheffield, Univ. of Oxford.*
- 10:00 MM21 **733.03** *In vivo* cerebellar lobule-specific corticonuclear connectivity in humans at 7 tesla. C. J. STEELE*; A. ANWANDER; P. BAZIN; R. TRAMPEL; A. SCHAEFER; R. TURNER; N. RAMNANI; A. VILLRINGER. *Max Planck Inst. For Human Cognitive and Brain Sci., Max Planck Inst. For Human Cognitive and Brain Sci., Max Planck Inst. For Human Cognitive and Brain Sci., Royal Holloway Univ. of London.*

- 11:00 MM22 **733.04** Cerebellar BOLD response to linguistic stimuli is modulated by predictability. E. LESAGE*; P. C. HANSEN; C. MIALL. *Univ. of Birmingham.*
- 8:00 MM23 **733.05** ● Intermittent theta-burst stimulation of the lateral cerebellum increases functional connectivity of the default network. M. A. HALKO*; F. FARZAN; M. C. ELDAIEF; J. D. SCHMAHMANN; A. PASCUAL-LEONE. *Beth Israel Deaconess Med. Ctr., Ctr. for Addiction and Mental Hlth., Brigham and Women's Hosp., Massachusetts Gen. Hosp.*
- 9:00 MM24 **733.06** Understanding the physiological role of the cerebellum and primary motor cortex during skill learning. D. SPAMPINATO*; A. J. BASTIAN; P. CELNIK. *Johns Hopkins University Sch. of Med., Kennedy Krieger Inst., Johns Hopkins University Sch. of Med.*
- 10:00 MM25 **733.07** Enhancing consolidation of a new temporal motor skill by cerebellar noninvasive stimulation. F. C. HUMMEL*; M. WESSEL; M. ZIMMERMAN; J. E. TIMMERMAN; C. GERLOFF; K. HEISE. *Univ. Med. Ctr. Hamburg-Eppendorf, Neurol., BINS Lab, Neurology, UKE.*
- 11:00 MM26 **733.08** A cerebellum-dependent velocity-duration trade-off ensures the precision of fast finger movements. A. SHARMA*; J. MESSNER; P. THIER. *Hertie Inst. For Clin. Brain Res.*
- 8:00 MM27 **733.09** A new biomarker of human cerebellar motor learning by prism adaptation of hand-reaching movement. T. HONDA*; Y. HASHIMOTO; H. MIZUSAWA; S. NAGAO; K. ISHIKAWA. *RIKEN Brain Sci. Inst. - Wako, Tokyo Med. and Dent. Univ.*
- 9:00 MM28 **733.10** Patients with focal cerebellar lesions show reduced auditory cortex activation while reading. T. MOBERGET*; E. H. GULLESEN; S. ANDERSSON; B. DUE-TØNNESSEN; T. LUNDAR; A. HELDAL; R. B. IVRY; T. ENDESTAD. *Univ. of Oslo, Univ. of Oslo, Oslo Univ. Hosp. - Rikshospitalet, Oslo Univ. Hosp. - Rikshospitalet, Univ. of California Berkeley, Univ. of Oslo.*
- 10:00 MM29 **733.11** Neural basis of anomalous motor learning in children with autism. M. K. MARKO*; D. CROCKETT; T. HULST; O. DONCHIN; R. SHADMEHR; S. MOSTOFSKY. *Johns Hopkins Univ., Kennedy Krieger Inst., Erasmus Med. Ctr., Ben Gurion Univ. of the Negev.*
- 11:00 MM30 **733.12** Efficient simulation and visualization of millions of cerebellar neurons. J. ZITO*; H. MEMELLI; R. OUKAOUR; I. C. SOLOMON; L. D. WITTIE. *Stony Brook Univ., Stony Brook Univ.*

POSTER

734. Afferent Control of Posture and Gait

Theme D: Sensory and Motor Systems

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

- 8:00 MM31 **734.01** Cortical activity associated with the removal and reintroduction of vision in quiet stance. A. C. KENNEDY*; H. A. OMANA MORENO; W. E. MCILROY. *Univ. of Waterloo.*
- 9:00 MM32 **734.02** Vestibular contributions to lateral stabilization are bilaterally dependent during split belt walking. P. A. FORBES*; M. VLUTTERS; C. J. DAKIN; J. BLOUIN; A. C. SCHOUTEN. *Delft Univ. of Technol., Univ. of Twente, Univ. Col. London, Univ. of British Columbia.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 MM33 **734.03** ● Feature extraction from distinct behavioral patterns in infants learning to sit. S. SAAVEDRA; M. WININGER*; C. DA COSTA; P. MELLODGE; T. OSHIO. *Univ. of Hartford, Univ. of Hartford, Univ. of Hartford.*
- 11:00 MM34 **734.04** Visual afferent inputs and their role to the distribution of common neural inputs to postural muscles. A. M. DEGANI; C. T. LEONARD; T. BOONSTRA; A. SANTOS*. *The Univ. of Montana, Univ. of Montana, Univ. of New South Wales.*
- 8:00 MM35 **734.05** Force sensing and muscle synergies: Integration of active substrate adherence in control of posture and walking in insects. S. N. ZILL*; S. CHAUDHRY. *J.C. Edwards Sch. Med.*
- 9:00 MM36 **734.06** Effects of stretch-reflex removal by self-reinnervation of one-joint vastii and two-joint rectus femoris on hindlimb muscle activity and mechanics during walking in the cat. R. MEHTA*; E. KAJTAZ; R. J. GREGOR; B. I. PRILUTSKY. *Georgia Inst. of Technol., USC.*
- 10:00 NN1 **734.07** Effects of tibialis anterior vibration (TAV) on anterior-posterior center of pressure (A/P COP) while exposed to various backward translations. D. R. TEMPLE*; B. LEE; C. S. LAYNE. *Univ. of Houston.*
- 11:00 NN2 **734.08** Intramuscular injection of insulin-containing nanoparticles reverses electrophysiological and structural changes of proprioceptors in short-term diabetic rats. V. K. HAFTEL*; R. BUTLER; J. LAKE; K. NUMA. *Morehouse Col., Morehouse Col.*
- 8:00 NN3 **734.09** Effects of tibialis anterior vibration (TAV) on anterior-posterior center of pressure (A/P COP) while exposed to various forward translations. C. S. LAYNE*; D. R. TEMPLE; B. C. LEE. *Univ. Houston, Univ. Houston.*
- 9:00 NN4 **734.10** Neural mechanisms of corrective steps. L. HSU; P. V. ZELENIN*; G. N. ORLOVSKI; T. G. DELIAGINA. *Karolinska Inst.*
- 10:00 NN5 **734.11** Postural responses accompanying achilles tendon vibration stimulation during various phases of sit-to-stand movement. N. KUROKAWA*; K. FUJIWARA; N. KIYOTA. *Gumma Paz Col., Kanazawa Univ., Osaka Hlth. Sci. Univ.*
- 11:00 NN6 **734.12** Age and gymnastics skill level effects in proprioceptive re-integration after vibration while standing. A. BUSQUETS FACIABEN*; B. FERRER-URIS; S. ARANDA-GARCIA; M. MARINA; R. ANGULO-BARROSO. *INEFC, Barcelona, EUSES, Univ. of Girona, Kinesiology, California State Univ.,*
- 8:00 NN7 **734.13** The effects of reduced sensation and altered proprioception on rate of loading. R. AMADOR*; A. THRASHER. *Univ. of Houston.*
- 9:00 NN8 **734.14** Phase-relationship between periodic visual perturbation and postural sway. M. SHINYA*; M. SUSAWA; D. NOZAKI; K. NAKAZAWA. *Univ. of Tokyo, The Univ. of Tokyo.*
- 10:00 NN9 **734.15** Tactile ground information for navigation. M. PLAISIER*; N. T. PLUIJTER; L. P. W. DE WIT; S. M. BRUIJN. *VU Univ. Amsterdam.*
- 11:00 NN10 **734.16** Axis of visual field rotation modifies postural response behavior. E. A. KESHNER*; R. ALMAJID; A. ALBISHI; S. SNELL. *Temple Univ.*

POSTER

735. Motor Cortex

Theme D: Sensory and Motor Systems

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

- 8:00 NN11 **735.01** Neural correlates of motor planning in a delayed response task. Z. WEI*; N. LI; K. SVOBODA; S. DRUCKMANN. *Janelia Farm Res. Campus, HHMI, the Johns Hopkins Med. Inst.*
- 9:00 NN12 **735.02** Choice-related activity in a cortical motor circuit analyzed with large-scale population imaging. T. CHEN*; N. LI; H. DANA; K. SVOBODA. *HHMI Janelia Farm Res. Campus.*
- 10:00 NN13 **735.03** Cell-type specific choice-related activity in a cortical motor circuit drives directional movements. N. LI*; T. CHEN; Z. GUO; C. R. GERFEN; K. SVOBODA. *Janelia Farm Res. Campus, HHMI, Natl. Inst. of Mental Hlth.*
- 11:00 NN14 **735.04** Putative signatures of global motor inhibition during response preparation. I. GREENHOUSE*; A. SIAS; L. LABRUNA; R. B. IVRY. *Univ. of California, Berkeley.*
- 8:00 NN15 **735.05** Effector dependent levels of inhibition in response preparation. L. LABRUNA*; C. CAZARES; I. GREENHOUSE; J. DUQUE; R. B. IVRY. *UC Berkeley, Inst. of neuroscience.*
- 9:00 NN16 **735.06** The dynamic of corticospinal excitability during the preparation of imagined movements. F. LEBON*; C. RUFFINO; I. GREENHOUSE; L. LABRUNA; R. B. IVRY; C. PAPAXANTHIS. *INSERM U1093, UC Berkeley.*
- 10:00 NN17 **735.07** Inhibitory control of information transmission from motor cortex to voluntary movement. P. KELLS; S. H. GAUTAM; W. L. SHEW*. *Univ. of Arkansas.*
- 11:00 NN18 **735.08** Intracortical microstimulation reveals movement specific domains in awake squirrel monkeys. R. M. FRIEDMAN*; I. STEPNIIEWSKA; A. W. ROE; J. H. KAAS. *Vanderbilt Univ.*
- 8:00 NN19 **735.09** Interactions between parallel parietal-frontal networks involved in complex motor behaviors. I. STEPNIIEWSKA*; D. J. MILLER; R. M. FRIEDMAN; J. H. KAAS. *Vanderbilt Univ.*
- 9:00 NN20 **735.10** Corticomotoneuronal cells are functionally specialized. D. M. GRIFFIN*; D. S. HOFFMAN; P. L. STRICK. *Univ. of Pittsburgh, Univ. of Pittsburgh, Veterans Affairs Med. Ctr., Univ. of Pittsburgh.*
- 10:00 NN21 **735.11** Task-dependency of trunk muscle motor cortical excitability. K. KHALID; S. CHIOU; P. H. STRUTTON*. *Imperial Col. London.*
- 11:00 NN22 **735.12** Neural basis for behavior-specific executive control in primates. Z. WILLIAMS*; B. GRANNAN; R. HU. *Harvard Med. Sch. (MGH), Harvard Med. Sch.*
- 8:00 NN23 **735.13** Properties of the primate cortico-reticular projection. K. M. FISHER; B. ZAIMI; S. A. EDGLEY; S. N. BAKER*. *Newcastle Univ., Cambridge Univ.*
- 9:00 NN24 **735.14** Neural correlations in primate sensorimotor cortex during prehension. A. T. RAJAN*; G. TABOT; S. BENSMAIA; N. HATSPOULOS. *Univ. of Chicago, Univ. of Chicago.*
- 10:00 NN25 **735.15** Macaque motor feedback responses rapidly reflect haptically-rendered environmental constraints. D. J. O'SHEA*; E. M. TRAUTMANN; K. V. SHENOY. *Stanford Univ., Stanford Univ., Stanford Univ.*

- 11:00 NN26 **735.16** Complex movements induced by prolonged transcranial optogenetic stimulation of the mouse motor cortex. R. HIRA*; M. MATSUZAKI. *Natl. Inst. For Basic Biol., Grad. Univ. of Advanced Studies (Sokendai)*.
- 8:00 NN27 **735.17** Rat sensorimotor cortex neurons encode for hindlimb kinematics during obstacle navigation. M. E. POWERS*; D. JOAD; K. A. MOXON. *Drexel Univ., Drexel Univ., Drexel Univ. Col. of Med.*
- 9:00 NN28 **735.18** Increased beta frequency-band drive from subthalamic nucleus to motor cortex in motor adaptation. H. TAN*; B. ZAVALA; A. POGOSYAN; P. BROWN. *Univ. of Oxford, NIH*.
- 10:00 NN29 **735.19** Topographic organization of cortical outputs from the hand representation of the primary motor cortex (M1) in a New World monkey (*Cebus apella*). A. HAMADJIDA*; M. DEA; S. QUESSY; N. DANCAUSE; N. DANCAUSE. *Dept. of Neuroscience, Univ. of Montreal, Groupe de recherche sur le systeme nerveux central*.
- 11:00 NN30 **735.20** Monosynaptic excitatory input from motor cortex (M1) to corticospinal neurons in secondary somatosensory cortex (S2). B. A. SUTER*; G. M. G. SHEPHERD. *Dept Physiology, Feinberg Sch. Med., Northwestern Univ.*
- 8:00 NN31 **735.21** Changes in intracortical inhibition and facilitation in the motor cortex ipsilateral to unilateral hand movement with mirror visual feedback. G. JEGATHEESWARAN*; M. VESIA; R. ISAYAMA; R. CHEN. *Toronto Western Res. Institute, UHN, Univ. of Toronto*.

POSTER

736. Autonomic Control of Renal, Urinary, and Reproductive Functions

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

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

- 8:00 NN32 **736.01** Spinal gabaa mechanism in pudendal inhibition of micturition reflexes in cats. Z. XIAO; J. REESE; Z. SCHWEN; B. SHEN; J. WANG; J. ROPPOLO; W. DE GROAT; C. TAI*. *The Second Hospital, Shandong Univ., Univ. Pittsburgh, Univ. Pittsburgh*.
- 9:00 NN33 **736.02** Analysis of brain activation by nociceptive and non-nociceptive bladder stimulation in cats using fMRI. J. R. ROPPOLO*; C. TAI; J. WANG; T. JIN; P. WANG; S. KIM; W. DE GROAT. *Univ. Pittsburgh Sch. Med.*
- 10:00 NN34 **736.03** Dopaminergic neurons reside in the rat spinal cord and modulate micturition function after complete spinal cord injury. S. HOU*; D. M. CARSON; D. WU; M. C. KLAU; J. D. HOULE; V. J. TOM. *Drexel Univ. Col. of Med.*
- 11:00 NN35 **736.04** • Stimulation parameter optimization of neuromodulation on bladder control in a rat cystitis model. X. SU*; A. NICKLES; D. E. NELSON. *Medtronic*.
- 8:00 NN36 **736.05** Brain activation by bladder sympathetic afferent pathways detected by fMRI in cats. J. WANG*; T. JIN; P. WANG; S. KIM; J. ROPPOLO; W. DE GROAT; C. TAI. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh*.
- 9:00 OO1 **736.06** Identification of bladder afferent types with multielectrode arrays in sacral dorsal root ganglia. J. T. BENTLEY*; S. E. ROSS; T. M. BRUNS. *Univ. of Michigan*.
- 10:00 OO2 **736.07** • Effects of solifenacin versus mirabegron on bladder urothelium. A. S. WOLF-JOHNSTON*; S. S. SHINDE; I. V. ZABBAROVA; A. J. KANAI; G. L. APODACA; J. I. GILLESPIE; C. KORSTANJE; L. A. BIRDER. *Univ. Pittsburgh, Univ. Pittsburgh, Newcastle Univ., Astellas Pharm Europe BV*.
- 11:00 OO3 **736.08** • Plasticity in ion channel expression (BKCa, SKCa) in micturition reflex pathways during postnatal rat development. M. A. VIZZARD*; B. GIRARD; S. MALLEY. *Univ. Vermont Col. Med.*
- 8:00 OO4 **736.09** • Superior efficacy of combination pharmacotherapy for treatment of neurogenic detrusor overactivity following spinal cord injury. M. O. FRASER*; J. C. LLOYD; N. LE; J. S. WIENER; P. C. DOLBER. *Duke Univ. Med. Ctr., Inst. for Med. Res., Durham Veterans Affairs Med. Ctr.*
- 9:00 OO5 **736.10** Quantitative expression profiling of voltage-gated ion channels and neurotransmitter receptors during postnatal maturation of neurons innervating the mouse lower urinary tract. K. LETT*; C. W. KYI; V. GARCIA; M. L. GARCIA; D. J. SCHULZ. *Univ. of Missouri-Columbia*.
- 10:00 OO6 **736.11** Modulation of lower urinary tract function under conditions of enhanced respiratory drive in adult female rats. T. Y. SHEN*; E. R. BRENNAN; I. C. SOLOMON; W. F. COLLINS, III. *Stony Brook Univ., Stony Brook Univ., Stony Brook Univ., Stony Brook Univ.*
- 11:00 OO7 **736.12** Effects of carbachol and atropine into the fourth brain ventricle (4thV) on intravesical pressure and cardiovascular parameters in female Wistar rats. E. M. CAFARCHIO*; L. A. SILVA; C. A. OGIHARA; R. L. ALMEIDA; M. A. SATO. *Faculdade De Medicina Do ABC, Faculdade De Medicina Do ABC*.
- 8:00 OO8 **736.13** p75 Receptor inhibition decreases spinal cord injury-induced bladder damage. I. V. ZABBAROVA*; S. O. YOON; W. C. DE GROAT; L. A. BIRDER; A. J. KANAI. *Univ. of Pittsburgh, Ohio State Univ., Univ. of Pittsburgh*.
- 9:00 OO9 **736.14** • Intravesical transient receptor potential vanilloid family member 4 (TRPV4) blockade reduces voiding frequency in mice with chronic urothelial overexpression of NGF (NGF-OE). B. M. GIRARD*; A. PETERSON; M. A. VIZZARD. *Univ. Vermont col Med., Univ. Vermont Col. Med.*
- 10:00 OO10 **736.15** Factors related to urinary void size in unanesthetized, freely-moving female rats. J. S. CARP*; B. K. LAPALLO; X. Y. CHEN; J. R. WOLPAW. *Wadsworth Ctr, NYS Dept Hlth. & SUNY*.
- 11:00 OO11 **736.16** The contribution(s) of transforming growth factor-beta to bladder afferent nerve hyperexcitability with cyclophosphamide-induced cystitis. E. J. GONZALEZ*; T. J. HEPPNER; M. T. NELSON; M. A. VIZZARD. *Univ. of Vermont, Univ. of Vermont*.
- 8:00 OO12 **736.17** Expression of TRPM4 in the urinary bladder - Effects of spinal cord injury. F. A. KULLMANN*; J. M. BECKEL; A. S. WOLF-JOHNSTON; C. GAUTHIER; Y. IKEDA; I. V. ZABBAROVA; A. J. KANAI; L. A. BIRDER. *Univ. of Pittsburgh*.
- 9:00 OO13 **736.18** • Timing and progression of cyclophosphamide-induced urinary voiding dysfunction in the rat. M. KLINGER*; R. L. SIMPSON; G. M. HERRERA. *Catamount Res. and Development, Inc.*
- 10:00 OO14 **736.19** Modeling the dynamics of bladder control networks after spinal cord injury. V. GUNTU*; C. SINKS; K. LETT; D. SCHULZ; S. NAIR. *Univ. of Missouri, Univ. of Missouri Columbia*.

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 OO15 **736.20** Oxytocin evokes independent effects on intravesical pressure and renal hemodynamic control in sham or ovariectomized female Wistar rats. M. A. SATO*; E. M. CAFARCHIO; L. C. AURESCO; C. A. OGIHARA; R. L. ALMEIDA; G. GIANNOCO. *FMABC*.
- 8:00 OO16 **736.21** • Nitro-oleic acid (OA-NO₂), an electrophilic fatty acid derivative and TRP channel agonists activate different afferent neuromodulatory mechanisms in guinea pig urinary bladder. K. KIM*; N. SHARAF; G. FACCHINE; T. RUSSO; P. MOONERT; B. A. FREEMAN; S. R. WOODCOCK; W. C. DE GROAT; S. L. DAUGHERTY. *Univ. of Pittsburgh, Sch. of Med.*
- 9:00 OO17 **736.22** Viral probes injected into the mouse tail are expressed in dorsal root ganglia and the bladder urothelium; a possible mechanism for the development of interstitial cystitis. Y. IKEDA*; I. V. ZABBAROVA; W. C. DE GROAT; L. A. BIRDER; A. J. KANAI. *Univ. of Pittsburgh, Univ. of Pittsburgh*.
- 10:00 OO18 **736.23** Role of p75 in the bladder after spinal cord injury. J. RYU; L. BIRDER; W. DE GROAT; A. KANAI; S. YOON*. *Ohio State Univ. Med. Sch., Univ. of Pittsburgh*.
- 11:00 OO19 **736.24** Characterizing and modeling sensory activity of the pudendal nerve in response to flow and pressure. Z. C. DANZIGER*; W. M. GRILL. *Duke Univ.*
- 8:00 OO20 **736.25** Non-voiding external urethral sphincter contractions after spinal transection in unanesthetized, freely-moving female rats. B. K. LAPALLO*; X. Y. CHEN; J. R. WOLPAW; J. S. CARP. *Wadsworth Center, NYS Dept of Hlth., Univ. at Albany*.
- 9:00 OO21 **736.26** Effects of nicotinic receptor agonists on afferent nerve activity in an *in vitro* bladder-pelvic nerve preparation. Y. YU; B. SHEN*; W. C. DE GROAT. *Univ. of Pittsburgh, Sch. of Med., Univ. of Pittsburgh*.
- 10:00 OO22 **736.27** Long-term serotonergic administration may promote voiding function in rats with contusion spinal cord injury. H. H. CHANG*; S. RANA; L. HAVTON. *UC Irvine, UC Irvine, Reeve-Irvine Res. Ctr.*
- 11:00 OO23 **736.28** A role for pannexin channel mediated ATP release from the luminal surface of the bladder epithelium in bladder sensory pathways. J. M. BECKEL*; S. L. DAUGHERTY; W. C. DE GROAT. *Univ. of Pittsburgh, Univ. of Pittsburgh*.
- 10:00 OO26 **737.03** ▲ Dopamine receptor antagonists reverse the effects of appetite suppressants on locomotion, food intake, weight-loss and rebalance spiking inhibition in the rat nucleus accumbens shell. K. BALASUBRAMANIAN*; C. I. PEREZ; J. SOLORIO; A. LUNA; D. ELIAS VIÑAS; M. MARIO GIL; I. O. PEREZ; S. A. SIMON; R. GUTIERREZ. *DEPARTMENT OF PHARMACOLOGY, CINVESTAV-IPN, Dept. of Bioelectronics, CINVESTAV-IPN, Duke Univ. Med. Ctr.*
- 11:00 OO27 **737.04** Postingestive mechanisms in instrumental reinforcement learning. A. B. FERNANDES*; R. M. COSTA; A. J. OLIVEIRA-MAIA. *Champalimad Ctr. For the Unknown, Ctr. Hospitalar de Lisboa Ocidental*.
- 8:00 OO28 **737.05** Leptin receptor-expressing parabrachial neurons modulate the glucoprivic response according to energy balance. J. N. FLAK*; C. M. PATTERSON; P. GOFORTH; A. GARFIELD; A. SUTTON; M. GERMANI; J. C. JONES; C. RHODES; D. P. OLSON; L. HEISLER; M. G. MYERS, Jr. *Univ. of Michigan, Univ. of Cambridge, Univ. of Michigan, Univ. of Chicago, Univ. of Aberdeen*.
- 9:00 OO29 **737.06** Fluoxetine treatment during neonatal age modulates energy balance in male rats. A. I. DA SILVA; G. R. F. BRAZ; A. A. PEDROZA; C. M. FREITAS; R. MANHAES-DE-CASTRO; C. LAGRANHA*. *UFPE, CAV-UFPE, CAV-UFPE*.
- 10:00 OO30 **737.07** The role of ERalpha signaling in the effects of maternal obesity on adult offspring energy homeostasis. E. A. KRUMM*; A. YASREBI; K. J. MAMOUNIS; J. A. YANG; T. A. ROEPKE. *Rutgers Univ.*
- 11:00 OO31 **737.08** Recurrent hypoglycemia alters glycogen and lipid metabolism in the ventromedial hypothalamus (VMH). J. MUN*; J. S. RHODES; J. L. BEVERLY. *Univ. of Illinois*.
- 8:00 OO32 **737.09** Characterization of gastric distension-induced single-unit vagal afferent responses in the musk shrew, a small animal model capable of emesis. C. C. HORN*; D. ROSENBERG; A. LIM; C. GOUILLOUX. *Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh Cancer Inst., Univ. of Pittsburgh, Univ. of Pittsburgh, AgroSup Dijon*.
- 9:00 PP1 **737.10** Pharmacogenetic attenuation of CCK-induced reduction of food intake and vagal afferent activation. R. C. RITTER*; N. HUSTON; J. E. M. LINDBERG; J. H. PETERS. *Washington State Univ.*
- 10:00 PP2 **737.11** Sympathetic-sensory feedback loops between white and brown fat. V. RYU*; T. J. BARTNESS. *Georgia State Univ.*
- 11:00 PP3 **737.12** Cholinergic neurotransmission controls the biosynthesis of orexigenic endocannabinoids in the small intestine. N. V. DIPATRIZIO*; M. IGARASHI; V. NARAYANASWAMI; D. PIOMELLI. *Univ. of California, Irvine, Italian Inst. of Technol.*
- 8:00 PP4 **737.13** Fructose increases liver 11 beta-hydroxysteroid dehydrogenase mRNA within 24h. A. E. SCHLAPPAL*; C. ZHAO; T. W. CASTONGUAY. *Univ. of Maryland, Univ. of Maryland*.
- 9:00 PP5 **737.14** Automated measurement of cold-inducible glucose uptake in human brown adipose tissue. J. V. PARDO; J. T. LEE; R. C. LARSON; A. A. LARSON*. *Univ. of Minnesota, VAMC, Univ. of Minnesota*.

POSTER

737. Integration of Peripheral Signals: Systems

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

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

- 8:00 OO24 **737.01** A role for vitamin D in diet-induced obesity and dopamine-related behaviors. J. R. TRINKO*; B. B. LAND; W. E. SOLECKI; R. J. WICKHAM; L. A. TELLEZ; I. E. DE ARAUJO; N. A. ADDY; R. J. DILEONE. *Yale Univ., John B. Pierce Lab.*
- 9:00 OO25 **737.02** Neural mechanisms mediating anti-obesity effects of predator stress. E. A. GENNÉ-BACON*; R. J. DILEONE. *Yale Univ.*

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10:00 PP6 **737.15** Regulation of GHSR signaling pathway in the arcuate nucleus and NPY neurons by fasting, diet-induced obesity and 17beta-estradiol in mice. A. YASREBI; A. HSIEH; K. J. MAMOUNIS; E. A. KRUMM; J. A. YANG; T. A. ROEPKE*. *Rutgers Univ., Rutgers, The State Univ. of New Jersey.*

POSTER

738. Energy Metabolism

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

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

- 8:00 PP7 **738.01** RNS60, a physically modified saline containing charge-stabilized oxygen-based nanobubbles, alters *Xenopus* oocytes membrane properties through the effects on mitochondria ATP synthesis. S. CHOI*; E. YU; D. KIM; M. SUGIMORI; R. LLINAS. *Marine Biol. Lab., Soonchunhyang University, Col. of Med.*
- 9:00 PP8 **738.02** Physically modified artificial sea water rescues synaptic transmission block following presynaptic human tau injection. E. YU*; S. CHOI; K. WALTON; H. MORENO; M. SUGIMORI; R. LLINAS. *Marine Biol. Lab., SUNY Downstate Med. Ctr.*
- 10:00 PP9 **738.03** Lipid bilayer permeability of oxygen nanobubble saline. M. V. IVANNIKOV*; M. SUGIMORI; R. LLINAS. *NYU Sch. of Med.*
- 11:00 PP10 **738.04** ● Modulatory effects of oxygen nanobubbles on synaptic transmission at mouse nmj. K. D. WALTON*; M. IVANNIKOV; M. SUGIMORI; R. R. LLINAS. *NYU Sch. Med.*
- 8:00 PP11 **738.05** RNS60 improves outcomes in a mouse model of Acute Ischemic Stroke. H. W. MORENO*; J. LI; J. ZHUANG; D. ROJAS; F. C. BARONE. *SUNY Downstate, SUNY Downstate Med. Ctr.*
- 9:00 PP12 **738.06** ● Distinct biophysical structure rather than oxygen content protects sh-sy5y cells after acute mitochondrial inhibition. F. CARDOZO-PELAEZ*; L. M. SANTANA; I. AREIZA. *Univ. Montana, The Univ. of Montana.*
- 10:00 PP13 **738.07** Oxygen distribution in cortical microvasculature reveals a novel mechanism for maintaining a safe tissue oxygenation. S. SAKADZIC*; E. T. MANDEVILLE; L. GAGNON; J. J. MUSACCHIA; M. A. YASEEN; M. A. YUCEL; J. LEFEBVRE; F. LESAGE; A. M. DALE; K. EIKERMANN-HAERTER; C. AYATA; V. J. SRINIVASAN; E. H. LO; A. DEVOR; D. A. BOAS. *Massachusetts Gen. Hosp., École Polytechnique de Montréal, UCSD, Univ. of California Davis.*
- 11:00 PP14 **738.08** Flow of bioenergy can be a key for neuronal survival. A hypothesis. S. KYRYLENKO*; A. L. R. OLIVEIRA; O. KYRYLENKO. *Univ. of Campinas UNICAMP, Univ. of Eastern Finland.*
- 8:00 PP15 **738.09** Glycolytic metabolism of hypothalamic astrocytes differs from cortical astrocytes. S. GELLER*; L. PELLERIN. *Unil/Physiology.*
- 9:00 PP16 **738.10** Ventromedial hypothalamic melanocortin receptor activation: Differences in energy expenditure of activity in lean vs. obesity-prone rats. C. K. GAVINI*; S. L. BRITTON; L. G. KOCH; C. M. NOVAK. *Kent State Univ., Kent State Univ., Univ. of Michigan.*

10:00 PP17 **738.11** Expression of hypothalamic HSP70 induced by high intensity exercise: Role of lacticemia and the α -adrenergic pathway. R. R. PORTO*; Í. K. RAKOWSKI; L. L. DE LIMA; A. BITTENCOURT; H. T. SCHROEDER; L. D. ZAVARIZE NETO; C. M. SCHOLER; D. M. ZANCAN; P. I. HOMEM DE BITTENCOURT JR. *Univ. Federal Do Rio Grande Do Sul - UFRGS.*

11:00 PP18 **738.12** Hypothalamic estrogen receptor- α in glucose counterregulatory response to hypoglycemia. Y. XIA*; F. ZOU; P. XU; A. O. HINTON, JR.; K. SAITO; Y. XU. *Baylor Col. of Med.*

8:00 PP19 **738.13** Sex- specific response in hindbrain caudal dorsal vagal complex astrocyte glycogen metabolic enzyme protein expression during basal and hypoglycemic conditions. P. TAMRAKAR*; P. K. SHRESTHA; K. P. BRISKI. *Univ. Louisiana Monroe.*

9:00 PP20 **738.14** Oxidative energy metabolism during different hippocampal network activity states. J. SCHNEIDER*; N. BERNDT; I. PAPAGEORGIOU; H. HOLZHÜTTER; O. KANN. *Inst. of Physiol. and Pathophysiology, Inst. of Biochemistry, Charité–Universitätsmedizin Berlin.*

10:00 PP21 **738.15** The non-signalling energy use of the brain. E. ENGL*; R. JOLIVET; D. ATTWELL. *UCL.*

11:00 PP22 **738.16** Metabolic syndrome reduces TBI outcome by disrupting mitochondrial functions and BDNF signalling. R. AGRAWAL*; Y. ZHUANG; Z. YING; F. GOMEZ-PINILLA. *Univ. of California Los Angeles (UCLA), UCLA brain injury research center.*

8:00 PP23 **738.17** Metabolic syndrome induces a specific cognitive failure and alteration in hippocampus activity. P. CISTERNAS*; C. LAMBERT; C. VIO; N. C. INESTROSA. *CARE-UC, Pontificia Univ. Católica De Chile, Ctr. for Healthy Aging Brain, Sch. of Psychiatry, Fac. of Medicine, Univ. of New South Wales.*

9:00 PP24 **738.18** Cortical spreading depression in transgenic mice with familial hemiplegic migraine type 1. L. KHENNOUF*; B. GESSLEIN; B. L. LIND; A. M. J. M. VAN DEN MAAGDENBERG; M. LAURITZEN. *Copenhagen Univ., Leiden Univ. Med. Ctr.*

10:00 QQ1 **738.19** Cortical cerebral metabolism measured in rodents with 2-photon-lifetime microscopy of endogenous nicotinamide adenine dinucleotide (NADH). M. A. YASEEN*; S. SAKADZIC; B. FU; W. WU; D. BOAS. *Massachusetts Gen. Hosp., Massachusetts Gen. Hosp.*

11:00 QQ2 **738.20** Creatine supplementation enhances corticomotor excitability and cognitive performance during oxygen deprivation. C. E. TURNER*; W. D. BYBLOW; N. GANT. *The Univ. of Auckland.*

8:00 QQ3 **738.21** Post-exercise brain lactate uptake in humans: An *in vivo* ultrahigh field MR Spectroscopy study. A. DENNIS*; A. THOMAS; N. B. RAWLINGS; J. NEAR; T. NICHOLS; S. CLARE; H. JOHANSEN-BERG; C. STAGG. *FMRIB, NIH, McGill Univ., Warwick Univ.*

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POSTER

739. Blood Brain Barrier: Cell Biology, Physiology, and Disease

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

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

- 8:00 QQ4 **739.01** Ceruloplasmin is expressed by brain pericytes. T. MOOS*; A. BURKHART. *Aalborg Univ.*
- 9:00 QQ5 **739.02** Triptan-Induced modulation of claudin-5 Expression: An *in vitro* study. C. L. WILLIS*; H. J. BEAULAC; S. A. BRULE; A. I. MCGREGOR. *Univ. of New England, Univ. of New England.*
- 10:00 QQ6 **739.03** The investigation of the drug transporter regulated milnacipran in the hippocampal neuronal *in vitro* system of HT22 cells. A. TAGUCHI*; K. OSADA; T. HAGA; A. MUTO; Y. OGAWA; T. WATANABE; S. ASARI; M. NAKANO; Y. SASUGA; N. YAMAGUCHI. *St. Marianna Univ.*
- 11:00 QQ7 **739.04** Transcranial focused ultrasound modulates brain perfusion and neural activity in rats. Y. CHEN*; P. CHU; Y. CHEN; H. LAI; S. SHAU; H. QIU; H. LIU; Y. PEI. *Chang Gung Univ., Chang Gung Univ., Natl. Yang Ming Univ., Chang Gung Mem. Hosp., Natl. Yang-Ming Univ.*
- 8:00 QQ8 **739.05** Restoration of hippocampal vascular density following brain irradiation: A role for endothelial progenitor cells. W. E. SONNTAG*; N. M. ASHPOLE; J. P. WARRINGTON; M. C. MITSCHLEN; H. YAN; D. SOSNOWSKA; T. GAUTAM; J. FARLEY; A. CSISZAR; Z. UNGVARI. *Univ. of Oklahoma HSC, Univ. of Mississippi Med. Ctr.*
- 9:00 QQ9 **739.06** Function of NKCC1 cotransporter in choroid plexus epithelial cells. J. M. CRUM*; F. J. ALVAREZ-LEEFMANS. *Wright State Univ., Wright State Univ.*
- 10:00 QQ10 **739.07** A novel model for brain iron uptake: Introducing the concept of regulation. K. A. DUCK*; P. PONNURU; E. B. NEELY; M. E. KLINGER; I. A. SIMPSON; J. R. CONNOR. *Penn State Hershey Med. Ctr., Drexel Univ. Col. of Med., Penn State Hershey Med. Ctr.*
- 11:00 QQ11 **739.08** Role of connexins and cytoplasmic calcium concentration in controlling blood-brain barrier permeability. L. G. LEYBAERT*; M. DE BOCK. *Dept. Basic Med. Sciences, Fac. Med. & Hlth. Sciences, Ghent Univ.*
- 8:00 QQ12 **739.09** Low-density lipoprotein receptor-related protein-1 regulates pericyte-mediated cerebrovascular functions. Y. YAMAZAKI*; V. FASOLINO; C. LIU; G. BU; T. KANEKIYO. *Mayo Clin.*
- 9:00 QQ13 **739.10** Ferumoxytol phagocytosis and localization in acute neuroinflammation. H. MCCONNELL*; G. PISHKO; R. WOLTJER; L. MULDOON; E. NEUWELT. *Oregon Hlth. & Sci. Univ.*
- 10:00 QQ14 **739.11** Examining the roles of diffusion, convection, and perivascular transport in the whole brain distribution of intrathecally applied antibody-based therapeutics. M. E. PIZZO*; D. J. WOLAK; R. G. THORNE. *Univ. of Wisconsin-Madison.*
- 11:00 QQ15 **739.12** Recurrent *Streptococcus pyogenes* infections induce Th17 cell infiltration into the CNS via an olfactory route and promote blood-brain barrier damage and IgG deposition. M. PLATT*; T. DILEEPAN; D. KNOWLAND; E. D. SMITH; M. HSU; P. CLEARY; D. AGALLIU. *UC Irvine, Univ. of Minnesota.*

- 8:00 QQ16 **739.13** Inhibition of prolactin with bromocriptine increases blood-brain barrier permeability *in vivo*. H. ROSAS-HERNANDEZ*; M. RAMIREZ; S. F. ALI; C. GONZALEZ. *Facultad De Ciencias Quimicas, Univ. Autonoma De San Luis Potosi, Natl. Ctr. for Toxicological Research/FDA.*
- 9:00 QQ17 **739.14** ▲ Prenatal stress modifies tight junction protein expression in the rat brain. F. ACOSTA-BLANCO*; J. VELAZQUEZ-MOCTEZUMA; B. GOMEZ. *Universidad Autonoma Metropolitana-Iztapalapa.*
- 10:00 QQ18 **739.15** Aerobic training (T) improves blood brain barrier (BBB) integrity in autonomic areas of the spontaneously hypertensive rat (SHR). L. BUTTLER*; M. T. JORDÃO; A. CERONI; L. C. MICHELINI. *Intitute of Biomed. Sci. (USP).*

POSTER

740. Functional Neuroimaging: Networks, Regions, and Resting State

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

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

- 8:00 QQ19 **740.01** Functional connectivity of resting-state networks in young healthy adults. S. TANAKA*; E. KIRINO. *Sophia Univ., Juntendo Univ. Shizuoka Hosp.*
- 9:00 QQ20 **740.02** Anti-hubs and hubs of anticorrelation in high resolution resting state functional connectivity network architecture. V. KRISHNAMURTHY*; R. CABANBAN; K. GOPINATH. *Emory Univ., Emory Univ.*
- 10:00 QQ21 **740.03** Cortical structural correlates of resting-state fMRI power spectra. L. RONAN*; P. C. FLETCHER. *Univ. of Cambridge.*
- 11:00 QQ22 **740.04** Water diffusion reveals brain networks that modulate multiregional morphological plasticity after repetitive transcranial magnetic. M. ABE*; T. MIMA. *Dept. of Neurology, Sch. of Med. Fukush, Human Brain Res. Center, Kyoto Univ. Grad. Sch. of Med.*
- 8:00 QQ23 **740.05** Regional brain metabolism correlated with large-scale functional network: Simultaneously acquired resting state FDG PET/fMRI study. H. CHOI; J. HAHM; Y. HUH; Y. KIM*; H. KANG; H. LEE; E. E. KIM; J. CHUNG; D. LEE. *Seoul Natl. Univ. Hosp., Seoul Natl. Univ. Boramae Med. Ctr.*
- 9:00 QQ24 **740.06** Obsessive-compulsive disorder results in increased dACC modulation of frontal-striatal-thalamic circuitry during working memory: Network signatures of inefficiency. E. HONG*; A. BURGESS; G. HANNA; P. ARNOLD; V. DIWADKAR; D. ROSENBERG. *Wayne State Univ., Univ. of Michigan, Univ. of Toronto.*
- 10:00 QQ25 **740.07** Total sleep deprivation alters resting state amygdala connectivity. Z. FANG*; N. MA; S. ZHU; S. HU; J. A. DETRE; D. F. DINGES; H. RAO. *Sun Yat-sen Univ., Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 11:00 QQ26 **740.08** Resting CBF changes in the anterior cingulate cortex predict blood pressure reduction after lifestyle modification in mild to moderate hypertension. H. RAO*; R. BHAVSAR; A. BOWLER; Z. FANG; N. MA; J. A. DETRE; D. L. COHEN. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

- 8:00 QQ27 **740.09** Reduced neural activity in patients with ornithine transcarbamylase deficiency during a Stroop task. I. M. PACHECO-COLÓN*; A. L. GROPMAN; C. SPROUSE; G. HELMAN; J. W. VANMETER. *Georgetown Univ. Med. Ctr., Children's Natl. Med. Ctr., George Washington Univ. of the Hlth. Sci., NIH.*
- 9:00 QQ28 **740.10** Choline levels in human parietal cortex predict performance in a visuospatial attention task. M. LINDNER; S. IQBAL; P. G. MULLINS; A. CHRISTAKOU*. *Univ. of Reading, Bangor Univ.*

POSTER

741. Human Long-Term Memory: Encoding

Theme F: Cognition and Behavior

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

- 8:00 QQ29 **741.01** Age-related differences in event-related functional connectivity during associative encoding. E. D. HORNE*; M. DE CHASTELAINE; D. R. KING; M. D. RUGG. *Univ. of Texas At Dallas, Univ. of Texas At Dallas.*
- 9:00 QQ30 **741.02** The relationships between age, negative subsequent memory effects and task-negative effects during associative memory encoding. M. A. DE CHASTELAINE*; J. T. MATTSON; T. H. WANG; B. DONLEY; M. D. RUGG. *Univ. of Texas At Dallas, Univ. of Texas Southwestern Med. Ctr.*
- 10:00 QQ31 **741.03** The neural representation of space-time in remembered experience. V. SREEKUMAR*; T. SMITH; D. NIELSON; S. DENNIS; P. SEDERBERG. *Ohio State Univ., Univ. of Newcastle.*
- 11:00 QQ32 **741.04** The activity in the default-mode network region can predict subsequent forgetting. K. TARK*; H. LEE; Y. BAK; D. YI. *Yonsei Univ., New York Univ.*
- 8:00 QQ33 **741.05** Posterior distributions over hidden variables: Schemas in the brain. S. C. CHAN*; Y. NIV; K. A. NORMAN. *Princeton Univ.*
- 9:00 QQ34 **741.06** High discrimination demands reduce interference during later learning. S. E. FAVILA*; A. J. H. CHANALES; B. A. KUHL. *New York Univ.*
- 10:00 QQ35 **741.07** Interactions between default and salience networks at rest predict the affective enhancement of memory. J. M. ANDREANO*; A. TOUROUTOGLOU; M. ADEBAYO; M. STEPANOVIC; C. CASO; B. C. DICKERSON; L. FELDMAN BARRETT. *Massachusetts Gen. Hosp., Athinoula A. Martinos Ctr. for Biomed. Imaging, Northeastern Univ.*
- 11:00 QQ36 **741.08** ▲ Electrophysiological evidence of age-related inter-hemispheric changes during episodic encoding processes. D. TROMP*; A. DUFOUR; T. PEBAYLE; O. DESPRES. *CNRS.*
- 8:00 RR1 **741.09** Projecting myself onto pictures: Effects of self-related processes on successful encoding activations. K. NORIMOTO*; Y. SHIGEMUNE; T. TSUKIURA. *Kyoto Univ.*
- 9:00 RR2 **741.10** Modulation of functional connectivity between left inferior frontal gyrus and posterior cortical regions as a function of successful vs. unsuccessful source encoding. J. X. WONG*; D. R. KING; E. D. HORNE; M. D. RUGG. *Univ. of Texas At Dallas.*
- 10:00 RR3 **741.11** Neural correlates during memory encoding associated with resistance to retroactive interference. J. D. KOEN*; M. D. RUGG. *Univ. of Texas at Dallas.*
- 11:00 RR4 **741.12** Prior knowledge effects on post-encoding brain connectivity. Z. LIU*; C. GRADY; M. MOSCOVITCH. *Applied Psychology and Human Development, Universi, Rotman Res. Institute, Baycrest Center, Univ. of Toronto, Univ. of Toronto, Univ. of Toronto.*
- 8:00 RR5 **741.13** Human intracranial EEG reveals distinct a time course of cortical activation during proactive versus retroactive attention-enhanced memorization. J. H. WITTIG*, JR.; R. ELLENBOGEN; S. INATI; K. ZAGHLOUL. *NINDS, NINDS.*
- 9:00 RR6 **741.14** Reinstatement of distributed spatiotemporal patterns of oscillatory power during associative memory recall. R. B. YAFFE; M. S. D. KERR; S. DAMERA; S. V. SARMA; S. K. INATI; K. A. ZAGHLOUL*. *Johns Hopkins Univ., Natl. Inst. of Neurolog. Disorders and Stroke, Natl. Inst. of Neurolog. Disorders and Stroke, NIH.*
- 10:00 RR7 **741.15** Multisensory context portends object memory. A. THELEN*; P. J. MATUSZ; M. M. MURRAY. *Vanderbilt Brain Inst., Ctr. Hospitalier Universitaire Vaudois.*
- 11:00 RR8 **741.16** Developing support vector machine classification of associative memory for real-time fMRI. H. DESHPANDE*; A. EKLUND; J. LISINSKI; C. MUELLER; B. KING-CASAS; S. LACONTE. *Virginia Tech. Carilion Res. Inst., Virginia Tech.*
- 8:00 RR9 **741.17** Imagine the future! How does episodic simulation enhance prospective memory? I. MOMENNEJAD*; J. D. COHEN; K. A. NORMAN. *Princeton Univ.*
- 9:00 RR10 **741.18** Using functional magnetic resonance imaging (fMRI) to investigate the neural bases of cognitive contributions to emotional enhancement of memory (EEM). G. E. BARNACLE*; D. TALMI; T. SOMMER. *Univ. of Manchester, Univ. Med. Ctr. Hamburg-Eppendorf.*
- 10:00 RR11 **741.19** An ERP investigation of the formation of unitized memory representations of arbitrary word pairs. H. D. LUCAS*; R. HUBBARD; K. ABUSAGER; K. D. FEDERMEIER. *Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign.*
- 11:00 RR12 **741.20** Reacting to novelty: Effects on learning, and the role of expectations. M. MEETER*; J. SCHOMAKER; M. RANGEL GOMEZ. *VU Univ. Amsterdam.*
- 8:00 RR13 **741.21** Multivariate pattern analysis on subjective processing of temporal memory in hippocampus. S. YI*; N. SHIN; S. HAN; S. LEE. *Yonsei Univ., Yonsei Univ. Col. of Med.*
- 9:00 RR14 **741.22** Dissociable neural correlates of unitization and relational association at encoding. H. TU*; V. L. BRAYMAN; R. A. DIANA. *Virginia Tech.*
- 10:00 RR15 **741.23** Resting state connectivity related with retrieval practice. E. MARIN-GARCIA*; A. T. MATTFELD; J. D. E. GABRIELI. *Basque Ctr. on Cognition, Brain and Language, Ikerbasque, MIT.*
- 11:00 RR16 **741.24** Neural evidence for a context-change account of list-method directed forgetting. K. NORMAN*; J. R. MANNING; J. A. WILLIAMS; L. R. PILOTO; J. C. HULBERT; B. ABUSHANAB; L. SAHAKYAN. *Princeton Univ., Univ. of North Carolina, Greensboro.*
- 8:00 RR17 **741.25** Visual exploration states during memory encoding in macaque hippocampus. R. MONTEFUSCO-SIEGMUND*; T. K. LEONARD; K. L. HOFFMAN. *York Univ., Ctr. for Vision Res., York Univ., York Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

742. Human Emotion: Individual Differences and Disorders

Theme F: Cognition and Behavior

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

- 8:00 RR18 **742.01** ● Decrease in depressive symptoms after ketamine is associated with change in amygdala response to implicit positive emotion. J. E. SZCZEPANIK*; M. FUREY; N. ALLISON; C. ZARATE. *NIMH, Univ. of Maryland.*
- 9:00 RR19 **742.02** Activation in the midcingulate cortex supports normative developmental changes in separation anxiety. K. LONG*; J. A. SILVERS; K. N. OCHSNER. *Columbia Univ.*
- 10:00 RR20 **742.03** Functional interactions between perceptual and affective body representations in the brain: Implications for eating disorder vulnerability in women. C. E. PRESTON*; H. EHRSSON. *Karolinska Institutet.*
- 11:00 RR21 **742.04** Oxidative stress markers in ventromedial prefrontal cortex suicidal people. E. BALTAZAR-GAYTAN*; P. AGUILAR ALONSO; F. DOLORES GARCIA; G. GAYTAN ROMERO; F. DE LA CRUZ - LOPEZ; G. FLORES. *Benemerita Univ. Autonoma de Puebla, Posgrado en Ciencias Químicas, Área de Bioquímica y Biología Molecular, Facultad de Ciencias Químicas, Univ. Autónoma de Puebla, Área de Bioquímica y Biología Molecular, Facultad de Ciencias Químicas, Univ. Autónoma de Puebla. 14 Sur y Av. San Claudio, CP: 72570, Hosp. Regional 18 de Octubre ISSSTE, Inst. de Psicología y Educación, Univ. Veracruzana, Lab. Fisiología de la Conducta. Escuela Nacional de Ciencias Biológicas.*
- 8:00 RR22 **742.05** Acoustic startle eye blink response in veterans with and without anger and aggression related problems. L. HEESINK*; R. KLEBER; L. VAN BEDAF; M. HÄFNER; E. GEUZE. *UMC Utrecht, Res. Ctr. Military Mental Hlth. Care, Ministry of Def., Utrecht Univ.*
- 9:00 RR23 **742.06** Clustering coefficient during resting state predicts trait anxiety in healthy adults. X. YOU; E. GORDON; M. NORR; M. STOLLSTORFF; C. J. VAIDYA*. *Georgetown Univ.*
- 10:00 RR24 **742.07** Context dependent fear conditioning for de-novo stimuli in spider-fearful individuals. A. ZLOMUZICA*; C. MOSIG; D. ADOLPH; J. MARGRAF. *Ruhr Univ. Bochum, Mental Hlth. Res. and Treatment Ctr.*
- 11:00 RR25 **742.08** The genetics and neurobiology of romantic relationship satisfaction- on the positive side of serotonin transporter gene. S. LUO*; D. YU; S. HAN. *Peking University, Dept. of Psychology, PKU-IDG/McGovern Inst. for Brain Res., Peking Univ.*
- 8:00 RR26 **742.09** ● ▲ Sex differences of the pleasantness level of pictures upon cerebral activity using fMRI. A. OMURA*; M. TANAKA; U. YAMAMOTO; T. HIROYASU. *Doshisha Univ.*
- 9:00 RR27 **742.10** Characterizing the associations and dissociations between the anatomical structure of the mirror neuron system and social functioning in Williams Syndrome. R. NG*; M. ERHART; T. T. BROWN; A. M. JARVINEN-PASLEY; E. HALGREN; J. R. KORENBERG; U. BELLUGI. *Univ. of Minnesota, Twin Cities, Salk Inst. for Biol. Studies, Univ. of California San Diego, Univ. of California, San Diego Sch. of Med., Univ. of California, San Diego Sch. of Med., Univ. of Utah.*
- 10:00 RR28 **742.11** Tolcapone modulates neural circuits underlying emotion processing in patients with schizophrenia and healthy volunteers. J. A. APUD*; N. D. FOGLEMAN; L. STERNBERG; J. H. CALLICOTT; S. DAS; B. KOLACHANA; K. F. BERMAN; V. S. MATTAY; D. R. WEINBERGER. *NIH, Natl. Inst. of Mental Hlth., The Lieber Inst. for Brain Develop.*
- 11:00 RR29 **742.12** Variation in the Williams syndrome GTF2I gene and anxiety proneness interactively moderate emotionally aversive event-related prefrontal cortical response. M. JABBI*; Q. CHEN; N. TURNER; M. WHITE; S. KIPPENHAN; P. KOHN; B. KOLACHANA; D. DICKINSON; V. MATTAY; D. R. WEINBERGER; K. F. BERMAN. *Natl. Inst. of Mental Health, NIH, The Lieber Inst. for Brain Development, Johns Hopkins Med. Campus, The Lieber Inst. on Brain Develop.*
- 8:00 RR30 **742.13** Sex differences in alpha-frequency EEG responses to preference for facial attractiveness. J. KANG*; S. KIM; Y. CHO; S. KIM. *Korea Univ., Korea Univ., Ulsan Natl. Inst. of Sci. and Technol.*
- 9:00 RR31 **742.14** Sympathetic reactivity and trauma-related symptoms differentially predict hypervigilant neural responses to novelty. S. YOON*; E. MILLON; M. R. WEIERICH. *The Grad. Center, The City Univ. of New York, Hunter College, The City Univ. of New York.*
- 10:00 RR32 **742.15** Euphoric experience is related to variability in left medial orbitofrontal cortex volume. J. M. CARLSON*. *Northern Michigan University.*
- 11:00 RR33 **742.16** The neural mechanisms of anticipation and implementation of cognitive reappraisal in avoidant personality disorder patients. B. T. DENNY*; J. FAN; X. LIU; K. N. OCHSNER; S. GUERRERI; S. MAYSON; L. RIMSKY; A. MCMASTER; A. S. NEW; M. GOODMAN; L. J. SIEVER; H. W. KOENIGSBERG. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Queens College, City Univ. of New York, Inst. of Psychology, Chinese Acad. of Sci., Columbia Univ., James J Peters VA Med. Ctr.*
- 8:00 RR34 **742.17** ▲ Music and emotion in adults with Williams syndrome: Expressivity toward affective musical pieces through nonverbal channels of behaviors. B. TANG*; P. LAI; J. REILLY; U. BELLUGI. *The Salk Inst. For Biol. Studies, San Diego State Univ., Univ. of California San Diego.*
- 9:00 RR35 **742.18** Relationship between subacute post-concussion symptoms and posttraumatic stress symptoms of survivors with minor physical injury. B. DUNCAN*; H. XIE; E. F. M. OLDS; K. R. BRICKMAN; M. B. TAMBURRINO; K. BRENNER; S. WATSON; B. P. KAMINSKI; M. MATTIN; E. FERGUSON; X. WANG. *Univ. of Toledo, Univ. of Toledo, Univ. of Toledo, ProMedica Hlth. Syst.*
- 10:00 RR36 **742.19** Mild traumatic brain injury affects cortical activation and substrates of negative emotion processing. H. XIE*; X. WANG; A. COTTON; M. B. TAMBURRINO; K. R. BRICKMAN; K. BRENNER; N. SELLERS; U. BHAVSAR; E. FERGUSON; S. HO; I. LIBERZON. *Univ. of Toledo, Univ. of Toledo, Univ. of Toledo, ProMedica Hlth. Syst., Univ. of Michigan.*
- 11:00 RR37 **742.20** Default and salience network intrinsic connectivity in behaviorally inhibited children at risk for anxiety. B. C. THOMAS*; S. MORALES; K. E. PEREZ-EDGAR. *Pennsylvania State Univ.*
- 8:00 RR38 **742.21** EEG asymmetry moderates the relation between behavioral inhibition and social anxiety. S. MORALES*; B. C. TABER-THOMAS; N. THAI; K. E. PÉREZ-EDGAR. *Penn State Univ., Pennsylvania State Univ.*

- 9:00 RR39 **742.22** Neural processing of social stimuli is associated with affective decision making on the Iowa Gambling Task. N. THAI*; B. C. TABER-THOMAS; K. E. PÉREZ-EDGAR. *The Pennsylvania State Univ.*
- 10:00 RR40 **742.23** ▲ Magnitude of visually evoked responses differ across level of altruism. J. J. FOWLER*; K. EVERHART; C. PHIEL; P. KAPLAN; D. S. ALBECK. *Univ. of Colorado Denver, Univ. of Colorado Denver, Univ. of Colorado Denver.*
- 11:00 RR41 **742.24** Serotonin transporter genotype modulates the effects of dopamine transporter genotype on learning from positive and negative feedback. H. KHDOUR*; J. Y. NATSHEH; I. T. MUGHRABI; H. DARWISH; M. M. HERZALLAH; M. A. GLUCK. *Al-Quds Univ., Al-Quds Univ., Rutgers Univ., NSLIJ Hlth. Syst., Fac. of Medicine, Al-Quds Univ.*
- 8:00 RR42 **742.25** Complex effects of serotonin transporter and BDNF polymorphisms on emotion responsiveness. T. L. GILMAN*; M. S. LATSKO; L. M. MATT; J. J. FLYNN; O. DE LA CRUZ CABRERA; D. DOUGLAS; A. M. JASNOW; K. G. COIFMAN. *Kent State Univ., Case Western Reserve Univ.*
- 9:00 RR43 **742.26** Gender differences in EEG gamma band activity correlated with behavioral responses to different emotional contents. J. YEON*; S. KIM. *UNIST.*
- 10:00 RR44 **742.27** ▲ A State of Art on music in aphasia treatment. L. JIMENEZ-DABDOUB*; C. M. MORÁN-MARTÍNEZ; M. RODRÍGUEZ-ORTIZ. *Facultad De Psicología.*

POSTER

743. Human Decision-Making: Risk, Effort, and Loss

Theme F: Cognition and Behavior

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

- 8:00 RR45 **743.01** Pre-existing brain states predict risky choices. Y. HUANG*; C. SOON; O. A. MULLETTE-GILLMAN; P. HSIEH. *Duke-NUS Grad. Med. Sch., Natl. Univ. of Singapore.*
- 9:00 RR46 **743.02** ▲ Systematic cognitive biases during probabilistic inference. J. LIU*; C. Z. GUO; M. A. SALHOLZ-HILLEL; A. SOLTANI. *Dartmouth Col., Dartmouth Col.*
- 10:00 RR47 **743.03** Risk preferences and choice strategies: Interrelationships across gains and losses domains. O. A. MULLETTE-GILLMAN*; Y. KURNIANINGSIH. *Natl. Univ. of Singapore, Duke-NUS Grad. Med. Sch., Natl. Univ. of Singapore, Natl. Univ. of Singapore, Natl. Univ. of Singapore.*
- 11:00 RR48 **743.04** ● Synaptic substrates of cognitive biases during probabilistic inference. P. KHORSAND*; C. SUN; A. SOLTANI. *Jefferies Intl. Limited, Dartmouth Col., Dartmouth Col.*
- 8:00 RR49 **743.05** Humans tradeoff information seeking and randomness in explore-exploit decisions. R. C. WILSON*; J. D. COHEN. *Princeton Univ., Princeton Univ.*
- 9:00 RR50 **743.06** Risk, ambiguity and decision horizon in human exploration - A 'wheel of fortune' task. A. GEANA*; R. C. WILSON; J. D. COHEN. *Princeton Univ.*
- 10:00 SS1 **743.07** Neural anticipatory activity to expected value is correlated with loss aversion. I. T. KURNIAWAN*; J. TANDI; M. W. L. CHEE. *Ctr. for Cognitive Neurosci.*

- 11:00 SS2 **743.08** Behavioral and neural signatures of choice computation for human effort-based decision making. S. BESTMANN*; S. W. KENNERLEY; M. C. KLEIN-FLÜGGE. *Inst. Neurol., UCL.*
- 8:00 SS3 **743.09** ▲ Decision making in three games with different amounts of risk and ambiguity. B. ALBRECHT*; U. KRAUS; P. MUSSEL; J. HEWIG. *Univ. of Würzburg.*
- 9:00 SS4 **743.10** ▲ The effect of described and experienced information on risky choice in a reaching task. N. J. WISPINSKI*; C. R. MADAN; C. S. CHAPMAN. *Univ. of British Columbia, Univ. of Alberta, Univ. of Alberta.*
- 10:00 SS5 **743.11** A novel fMRI delay discounting procedure to increase flexibility and minimize scanning duration. M. N. KOFFARNUS*; A. EKLUND; S. M. LACONTE; W. K. BICKEL. *Virginia Tech. Carilion Res. Inst.*

POSTER

744. Attention: Individual Differences

Theme F: Cognition and Behavior

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

- 8:00 SS6 **744.01** Can our thoughts change the amplitude of a TMS-evoked response? A preliminary study on the effect of visual and cognitive attention on TMS output. S. BELL*; M. S. GEORGE; C. A. HANLON. *Med. Univ. of South Carolina.*
- 9:00 SS7 **744.02** Morphology and patterns of the posterior intermediate parietal sulcus in the parietal lobe of the human brain. V. ZLATKINA*; M. PETRIDES. *MNI, McGill Univ.*
- 10:00 SS8 **744.03** Resting-state anticorrelations between medial and lateral prefrontal cortex: Association with working memory, aging, and individual differences. J. B. KELLER*; T. HEDDEN; T. W. THOMPSON; S. A. ANTERAPER; J. D. E. GABRIELI; S. WHITFIELD-GABRIELI. *MIT, Massachusetts Gen. Hospital, Harvard Medical Sch., Inst. for Med. Engin. and Sci., Dept. of Brain and Cognitive Sci. and McGovern Inst. for Brain Research, MIT.*
- 11:00 SS9 **744.04** Individual differences in relative-heading performance. H. BURTE*; M. HEGARTY; B. O. TURNER; M. B. MILLER. *Univ. of California, Santa Barbara, Univ. of California, Santa Barbara.*
- 8:00 SS10 **744.05** Neural correlates of verbal creativity: Magnetic resonance morphometric analysis. S. A. KOZLOVSKIY; M. M. PYASIK; A. V. VARTANOV; V. L. USHAKOV*. *Lomonosov Moscow State Univ., NRC Kurchatov Inst.*
- 9:00 SS11 **744.06** ● Phase locking of motor and parietal cortices is associated with the individual differences in early visuomotor adaptation. M. ANWAR*; Y. NAKAGAWA; K. KITAJO. *Natl. Univ. of Sci. and Technol. (NUST), Rhythm-based Brain Information Processing Unit, BSI-Toyota Collaboration Ctr. (BTCC), RIKEN Brain Sci. Inst.*
- 10:00 SS12 **744.07** ▲ Sex specific relationships between inner speech and schizotypal personality traits. B. ZIMMERMAN*; C. E. LOWE; J. CANNON; P. T. ORR. *Univ. of Scranton.*
- 11:00 SS13 **744.08** Covariance between right orbitofrontal and paralimbic cortical thickness is associated with antisocial traits in typically developing youth. G. L. WALLACE*; N. LEE; A. RAZNAHAN; L. CLASEN; A. MARTIN; J. GIEDD. *George Washington Univ., NIMH.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 SS14 **744.09** Increased peak gamma frequency induced by visual stimuli in those with high levels of autistic traits. A. DICKINSON*; M. JONES; M. BRUYNS-HAYLETT; E. MILNE. *Univ. of Sheffield*.
- 9:00 SS15 **744.10** Deriving core psychiatric behavioral constructs and their neural correlates. E. T. MARCELLE; E. J. HO; D. J. LURIE; D. O'CONNOR; Z. SHEHZAD; R. CRADDOCK; R. H. TOBE; F. X. CASTELLANOS; B. L. LEVENTHAL; S. J. COLCOMBE; M. P. MILHAM*. *Child Mind Inst., Yale Univ., Nathan S. Kline Inst. for Psychiatric Res., NYU Ctr. Neurodevelopmental Disorders*.
- 10:00 SS16 **744.11** Trait mindfulness is associated with resting state functional connectivity of the default mode network. C. M. STILLMAN*; X. YOU; E. RASMUSSEN; C. J. VAIDYA; R. S. TURNER; J. H. HOWARD, Jr.; D. V. HOWARD. *Georgetown Univ., Georgetown Univ., Georgetown Univ. Med. Ctr., The Catholic Univ. of America*.
- 11:00 SS17 **744.12** CREB1 genotype effects on individual differences in the adaptation of reward-motivated decisions and related activation of mesocorticolimbic regions in humans. C. WOLF; H. MOHR; E. DIEKHOF; M. KEIL; E. BINDER; O. GRUBER*. *Georg-August-University Göttingen, Natl. Inst. on Aging, TU Dresden, Georg-August-University Göttingen, Univ. Hamburg, Max-Planck-Institut für Psychiatrie, EMORY Univ., Dept. of Psychiatry, UMG*.
- 8:00 SS18 **744.13** Hippocampal connectivity to posterior cingulate cortex reliably predicts memory across sessions and age groups. A. TOUROUTOGLOU*; J. ANDREANO; M. ADEBAYO; M. STEPANOVIC; C. CASO; L. FELDMAN BARRETT; B. DICKERSON. *Athinoula A. Martinos Center, Massachusetts Gen. Hosp., Harvard Med. Sch., Frontotemporal Disorders Unit, Dept. of Neurology, Massachusetts Gen. Hosp. and Harvard Med. Sch., Northeastern Univ.*
- 9:00 SS19 **744.14** Individual difference in individualism/collectivism modulates functional connectivity between medial prefrontal cortex and posterior cingulate cortex during resting state. Y. BAK*; K. TARK; H. KIM; D. YI. *Yonsei Univ.*
- 10:00 SS20 **744.15** Personality traits are carved in the resting-state brain networks. T. DONISHI*; M. TERADA; Y. KANEOKI. *Wakayama Med. Univ., Wakayama-Minami Radiology Clin.*
- 11:00 SS21 **744.16** ▲ The relationship between social media use, circadian rhythms, and mood regulation in young adults. S. WITKOWSKI*; K. KALLINA; C. KARR; S. SHERMAN; D. SCHNYER. *Univ. of Texas, Univ. of Texas, Northwestern Univ.*
- 8:00 SS22 **744.17** ● Estimating sleep, mood and time of day effects in a large database of human cognitive performance. D. A. STERNBERG*; K. KATOVICH; J. L. HARDY; M. SCANLON. *Lumos Labs*.
- 9:00 SS23 **744.18** Relationships of D1- and D2-type striatal dopamine receptor availability and motor response inhibition. C. L. ROBERTSON*; K. ISHIBASHI; A. K. BROWN; D. G. GHAREMANI; E. CONGDON; F. SAAB; T. CANNON; M. A. MANDELKERN; R. M. BILDER; E. D. LONDON. *UCLA, Veterans Admin. Greater Los Angeles Healthcare Syst., UCLA, Yale, UCI, UCLA, UCLA*.
- 10:00 SS24 **744.19** Moment to moment BOLD signal variability in resting state networks correlates with cognitive performance in a traumatic brain injury sample. A. RIGON*; M. C. DUFF; M. W. VOSS. *Univ. of Iowa*.
- 11:00 SS25 **744.20** Distinct patterns of cortical regionalization linked to individual differences in phonological and inhibitory functions in children. L. B. CURLEY*; E. NEWMAN; T. BROWN; K. S. MADSEN; M. R. GONZALEZ; A. M. DALE; T. L. JERNIGAN. *UCSD, UCSD, UCSD, Copenhagen Univ. Hosp., UCSD*.

POSTER

745. Executive Function: Models of Disorders II

Theme F: Cognition and Behavior

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

- 8:00 SS26 **745.01** Determining the role of Toxoplasma derived dopamine in animal behavior. R. MCFARLAND*; M. V. PLETNIKOV. *Johns Hopkins Univ., Johns Hopkins Univ.*
- 9:00 SS27 **745.02** The immediate and delayed effects of acute stress on social behavior in rats. K. SAXENA*; P. CHAKRABORTY; S. CHATTARJI. *Natl. Ctr. for Biol. Sci.*
- 10:00 SS28 **745.03** Ketamine corrects reversal learning deficits induced by chronic cold stress -possible involvement of STAT3. M. GIROTTI*; M. S. PATTON; D. A. MORILAK. *Univ. Texas Hlth. Sci. Ctr.*
- 11:00 SS29 **745.04** Prefrontal cortical plasticity and behavioral effects of chronic stress. J. D. JETT*; D. A. MORILAK. *Univ. Texas Hlth. Sci. Ctr, SA*.
- 8:00 SS30 **745.05** As time goes by: The gradual impact of chronic stress on rodent hippocampal structure and function. M. RAHMAN*; C. KERSKENS; C. K. CALLAGHAN; S. CHATTARJI; S. M. O'MARA. *Natl. Ctr. for Biol. Sci., Trinity Col. Inst. of Neuroscience, Trinity Col. Dublin*.
- 9:00 SS31 **745.06** Ketamine provides anti-depressant efficacy in treatment-resistant rats following inflammation. J. B. PRICE; S. J. TYE*. *Mayo Clin., Mayo Clin.*
- 10:00 SS32 **745.07** 'Sequester' stress: A novel animal model for depression-like behavior. B. L. KOPP*; B. MYERS; M. SOLOMON; J. P. HERMAN. *Univ. of Cincinnati, Reading Campus, Univ. of Cincinnati, Univ. of Cincinnati*.
- 11:00 SS33 **745.08** Prospective timing behavior in spontaneously hypertensive rats. V. ORDUÑA*; E. TRUJANO. *Universidad Nacional Autonoma De Mexico*.
- 8:00 SS34 **745.09** Executive functional changes in a putative neurodevelopmental model of schizophrenia made by neonatal lesions of the prefrontal cortical subplate. S. J. DESAI; F. JUNG; Q. YAO; B. L. ALLMAN; R. RAJAKUMAR*. *Univ. Western Ontario*.
- 9:00 SS35 **745.10** Transcriptional changes in the prefrontal cortex linking different forms of gestational adversity to specific deficits of executive function. N. M. GRISSOM*; C. HERDT; J. DESILETS; J. LIDSKY-EVERSON; T. M. REYES. *Univ. of Pennsylvania*.
- 10:00 SS36 **745.11** ● The effects of fetal alcohol exposure on attentional set shifting and susceptibility to distraction. J. A. MCGAUGHY*; D. J. CREER; J. A. MCBURNIE; P. ROBINSON-DRUMMER; M. E. STANTON. *Univ. New Hampshire, Univ. of Delaware*.
- 11:00 SS37 **745.12** Fronto-subcortical circuits and avoidance behaviour: Differential contributions of the orbitofrontal and ventrolateral PFC. H. F. CLARKE*; N. HORST; A. C. ROBERTS. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Cambridge*.

- 8:00 SS38 **745.13** ● Neural correlates of quinpirole-induced checking behavior on the observing response task for rats. L. D'ANGELO*; B. JUPP; D. M. EAGLE; T. W. ROBBINS. *Univ. of Cambridge, Behavioural & Clin. Neurosciences Inst., Florey Inst. for Neurosci. and Mental Health, The Univ. of Melbourne.*
- 9:00 SS39 **745.14** Age-related alteration of decision making in the BACHD rat model for Huntington's disease. N. EL MASSIOUI; S. YAGUE; N. ADJEROUD; G. MANFRE; S. BOSSI; O. RIESS; P. ALLAIN; N. SAMSON; L. YU-TAEGER; H. NGUYEN; V. DOYERE*. *CNRS-UMR 8195 CNPS, Univ. of Tuebingen, Univ. d'Angers.*
- 10:00 SS40 **745.15** Characterizing behavioral flexibility impairment in mouse models of cognitive deficits induced by N-ethyl-N-nitrosourea mutagenesis and p-chlorophenylalanine. T. ENDO*; S. BENNER; W. LING; N. ENDO; E. KIMURA; T. FURUSE; S. WAKANA; H. BITO; C. TOHYAMA; M. KAKAYAMA. *The Univ. of Tokyo, The Univ. of Tokyo, Japan Mouse Clinic, RIKEN Bioresource Ctr., Nagasaki Univ.*
- 11:00 SS41 **745.16** Anxious phenotype plus environmental stress are related with brain DNA damage. D. DIMER LEFFA*; G. Z. RÉUS; F. PETRONILHO; H. M. ABELAIRA; A. S. CARLESSI; J. L. FERNANDEZ; A. P. DAMIANI; V. M. ANDRADE; J. QUEVEDO. *The Univ. of Texas Hlth. Sci. Ctr. At H, Univ. of Southern Santa Catarina - UNESCO, Pontifical Catholic Univ. of Rio de Janeiro, The Univ. of Texas Hlth. Sci. Ctr. At H.*
- 8:00 SS42 **745.17** Functional characterization of a novel catecholamine modulator to treat cognitive dysfunction. W. XU; L. KEIBEL; D. BERNSTEIN; S. SIMMS; R. SANCHEZ; A. LIN; A. C. K. FONTANA; O. V. MORTENSEN; R. ESPAÑA; B. D. WATERHOUSE; J. S. SHUMSKY; S. KORTAGERE*. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*
- 9:00 SS43 **745.18** ● Study of Social Defeat Stress effects on nociceptive behavior in mice. M. F. PAGLIUSI*; JR; I. J. M. BONET; C. R. SARTORI; C. A. PARADA; M. C. P. ATHIÉ; A. S. VIEIRA. *UNICAMP, UNICAMP.*
- 11:00 SS47 **746.04** Cortical localization of fear memory. I. BERTOCCHI; D. ARCOS-DIAZ; P. BOTTA; M. TREVIÑO; G. DOGBEVIA; A. LÜTHI; R. SPRENGEL; P. H. SEEBURG; M. T. HASAN*. *Max Planck Inst. for Med. Res., Friedrich Miescher Inst. for Biomed. Res., Univ. de Guadalajara, Charite-Universitätsmedizin Berlin.*
- 8:00 SS48 **746.05** Infralimbic cortex activity is critical for the consolidation of emotional learning. D. C. CHOI*; K. J. RESSLER. *Emory Univ., Emory Univ.*
- 9:00 SS49 **746.06** Noradrenergic blockade stabilizes medial prefrontal single-unit activity after footshock stress and reduces fear expression in rats. T. F. GIUSTINO*; P. J. FITZGERALD; S. MAREN. *Texas A&M Inst. for Neurosci., Texas A&M Univ.*
- 10:00 SS50 **746.07** Renewal of extinguished fear induces Fos in ventral hippocampal neurons projecting to the medial prefrontal cortex. Q. WANG*; S. MAREN. *Texas A&M Univ., Texas A&M Univ., Texas A&M Univ.*
- 11:00 SS51 **746.08** Does β -adrenergic blockade in the medial prefrontal cortex or basolateral amygdala rescue the immediate extinction deficit? J. SEEMANN*; G. M. ACCA; P. J. FITZGERALD; S. MAREN. *Texas A&M Univ., Texas A&M Univ.*
- 8:00 SS52 **746.09** Enhancement of traces of extinction memory to prevent fear return via up-regulation of infralimbic protein kinase M ζ . Y. XUE*; H. HAN; Z. ZHU; J. DENG; J. YANG; L. LU. *Peking Univ., Tianjin medical Univ., Natl. Inst. on Drug Dependence, Peking Univ., Ctr. of Tianjin Mental Hlth. Ctr., Inst. of Mental Health, Peking Univ.*
- 9:00 SS53 **746.10** The role of perineuronal nets and Nogo signaling in auditory cortex-mediated fear learning. S. B. BANERJEE*; V. A. GUTZEIT; R. C. LIU; K. J. RESSLER. *Emory Univ., Emory Univ.*
- 10:00 SS54 **746.11** Cortical perineuronal nets, parvalbumin neurons, and fear inhibition in adolescent rats. K. D. BAKER*; A. R. GRAY; R. RICHARDSON. *Univ. New South Wales.*
- 11:00 SS55 **746.12** Sex differences in the effects of adolescent ethanol exposure on fear behavior in adulthood and corresponding structural changes in the medial prefrontal cortex. T. GRUENE*; C. REY; R. SHANSKY. *Northeastern Univ.*
- 8:00 SS56 **746.13** Impaired fear expression but not extinction after controlled cortical impact in mice. D. SIERRA-MERCADO*; L. M. MCALLISTER; C. C. LEE; M. R. MILAD; E. N. ESKANDAR; M. J. WHALEN. *Univ. Puerto Rico Sch. of Med., Massachusetts Gen. Hosp., Massachusetts Gen. Hosp.*
- 9:00 SS57 **746.14** d-Cycloserine facilitates fear extinction in adolescent rats by increasing medial prefrontal cortex activation. R. RICHARDSON*; G. P. MCNALLY; K. D. BAKER. *Univ. New South Wales.*
- 10:00 SS58 **746.15** A+/B- fear discrimination and conditioned inhibition of freezing require NMDA receptor in posterior insular cortex. A. R. FOILB*; J. G. FLYER-ADAMS; S. F. MAIER; J. P. CHRISTIANSON. *Boston Col., Univ. of Colorado.*
- 11:00 SS59 **746.16** Regulation of discriminative fear conditioning by distinct prefrontal cortex subregions. P. T. PIANTADOSI*; S. B. FLORESCO. *Univ. of British Columbia.*

POSTER

746. Fear and Aversive Memories: Cortex

Theme F: Cognition and Behavior

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

- 8:00 SS44 **746.01** Coherent activity in retrosplenial cortex, hippocampus, and anterior cingulate cortex during retrieval of recent and remote memory. K. A. CORCORAN; L. M. KAY; J. M. RADULOVIC*. *Northwestern Univ., Univ. of Chicago.*
- 9:00 SS45 **746.02** Prefrontal circuits of contextual fear discrimination and generalization. R. R. ROZESKE*; S. KHODER; F. CHAUDUN; N. KARALIS; H. WURTZ; C. HERRY. *INSERM U862, Ludwig-Maximilian Univ.*
- 10:00 SS46 **746.03** Synchronized prefrontal-amygdala 4Hz oscillations mediate fear behavior. N. KARALIS*; J. COURTIN; C. DEJEAN; F. CHAUDUN; R. R. ROZESKE; H. WURTZ; C. HERRY. *Ludwig-Maximilian Univ. Munich, INSERM U862, Neurocentre Magendie.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 8:00 SS60 **746.17** Pharmacogenetic excitation of medial prefrontal neurons mimics positive prediction error to enable fear learning. J. YAU*; G. MCNALLY. *Univ. of New South Wales, Univ. of New South Wales.*
- 9:00 SS61 **746.18** Differences in distribution of zinc in frontal and hippocampal regions in B6 and 129 mice. P. A. KAKALEC*; C. GROEBER; R. TAPPERO; J. FLINN. *George Mason Univ., George Mason Univ., Brookhaven Natl. Lab.*
- 10:00 SS62 **746.19** ▲ Perirhinal cortex involvement in delay fear conditioning to a discontinuous light stimulus. J. R. MOOTZ; C. A. CALUB; A. G. BECKNER; S. J. RUIZ; S. C. FURTA*. *California State Univ.*
- 11:00 SS63 **746.20** Changes in dendritic spine morphology and density in medial prefrontal cortex neurons associated to long term memory after different training intensity conditions. M. E. TORRES GARCÍA*; A. C. MEDINA; G. L. QUIRARTE; G. FLORES; R. A. PRADO-ALCALÁ. *Inst. de Neurobiología, UNAM, Inst. de Fisiología, Univ. Autónoma de Puebla.*
- 8:00 SS64 **746.21** Muscarinic acetylcholine receptor subtype-specific antagonism in retrosplenial cortex impairs contextual fear acquisition and retrieval. K. LEADERBRAND*; K. CORCORAN; J. WESS; S. TONEGAWA; J. RADULOVIC. *Northwestern Univ., Northwestern Univ., Natl. Inst. of Diabetes and Digestive and Kidney Dis., MIT, Picower Inst. for Learning and Memory.*
- 9:00 SS65 **746.22** Pathway-specific corticoamygdala mediation of fear extinction. O. BUKALO*; C. R. PINARD; M. L. REGER; H. C. BERGSTROM; G. COLACICCO; E. F. BUSCH; A. HOLMES. *NIH/NIAAA.*
- 10:00 SS66 **746.23** mPFC-BLA microcircuit involvement in fear conditioning. M. ARRUDA-CARVALHO*; R. L. CLEM. *Icahn Sch. of Med. At Mount Sinai and the Fr.*
- 11:00 SS67 **746.24** Trace fear conditioning and extinction differentially modulate intrinsic excitability of mPFC neurons that project to the amygdala. C. SONG*; V. L. EHLERS; J. C. AIKTEN; T. BULA; J. R. MOYER, Jr. *Univ. of Wisconsin-Milwaukee, Univ. of Wisconsin-Milwaukee.*
- 8:00 SS68 **746.25** Layer- and region-specific differences in the neurophysiological properties of medial prefrontal cortical neurons. J. R. MOYER, JR.*; V. L. EHLERS; C. SONG. *Univ. of Wisconsin-Milwaukee, Univ. of Wisconsin-Milwaukee.*
- 9:00 TT1 **746.26** A predictive model of PTSD: pre-existing functional differences in perirhinal and agranular insular cortex. K. BUNTING*; G. PEREZ; R. NALLOOR; A. VAZDARJANOVA. *Georgia Regents Univ., Charlie Norwood VAMC.*
- 10:00 TT4 **747.03** Experience-dependent plasticity in parvalbumin interneurons disinhibits the amygdala fear circuit after emotional learning. E. K. LUCAS*; R. L. CLEM. *MSSM.*
- 11:00 TT5 **747.04** Development of neuronal single cell models for network simulations. C. FRANKLIN*; V. GUNTU; S. NAIR. *Univ. of Missouri.*
- 8:00 TT6 **747.05** Central amygdala model integrates intra-amygdalar inputs during fear conditioning. P. S. SAMARTH*; D. PARE; S. NAIR. *Univ. of Missouri Columbia, Rutgers Univ.*
- 9:00 TT7 **747.06** Comparison of single cell models for neuronal network simulations. A. ALTURKI*; A. NAIR; V. GUNTU; S. NAIR. *Univ. of Missouri - Columbia, Ross Univ.*
- 10:00 TT8 **747.07** Competition among model lateral amygdala principal cells during Pavlovian fear conditioning. F. FENG*; S. PRANIT; D. PARE; S. NAIR. *Univ. of Missouri-Columbia, Rutgers Univ.*
- 11:00 TT9 **747.08** Central amygdala neurons gate expression of conditioned flight behavior. J. P. FADOK*; S. KRABBE; P. TOVOTE; P. BOTTA; C. XU; K. BYLUND; C. MUELLER; A. LUTHI. *Friedrich Miescher Inst.*
- 8:00 TT10 **747.09** Large-scale plasticity following neonatal amygdala lesions in the rhesus macaque. D. GRAYSON*; M. BUONOCORE; J. BENNETT; D. AMARAL. *UC Davis MIND Inst., UC Davis MIND Inst.*
- 9:00 TT11 **747.10** Immunohistochemical characterization of somatostatin expressing neurons in the primate amygdala. R. KOVNER*; P. H. ROSEBOOM; D. A. FRENCH; J. A. OLER; A. S. FOX; J. L. FUDGE; N. H. KALIN. *Univ. of Wisconsin, Univ. of Rochester Med. Sch.*
- 10:00 TT12 **747.11** Dynamics of the recruitment of Lateral Amygdala neurons following successive fear learning to different conditional stimuli. R. NIU*; M. ABATIS; R. STOOP. *Dept. of Psychiatry, CHUV.*
- 11:00 TT13 **747.12** Characterizing connectivity and signal propagation in the lateral amygdala through local networks. M. ABATIS*; R. PERIN; H. MARKRAM; R. STOOP. *Dept. of Psychiatry, CHUV, EPFL.*
- 8:00 TT14 **747.13** Altered functional architecture of amygdala-centered networks in adolescent post-traumatic stress disorder. M. AGHAJANI*; I. M. VEER; M. A. W. RINNE-ALBERS; M. VAN HOOFF; N. J. VAN DER WEE; R. R. J. M. VERMEIREN. *Leiden Univ. Med. Ctr., Charité Universitätsmedizin, Leiden Univ. Med. Ctr.*
- 9:00 TT15 **747.14** ErbB4 modulates fear expression and anxiety through the central amygdala. S. AHRENS*; H. LI; M. PENZO; B. LI. *Cold Spring Harbor Lab.*
- 10:00 TT16 **747.15** Glucocorticoid receptor activation in the amygdala and corticosterone release are related to stress levels during contextual fear conditioning. R. PONCE-LINA; N. SERAFIN; M. CARRANZA; J. N. PARGA-MARTÍNEZ; R. A. PRADO-ALCALÁ; M. LUNA; G. L. QUIRARTE*. *Inst. de Neurobiología, UNAM, Inst. de Neurobiología, UNAM.*
- 11:00 TT17 **747.16** CRF produced in the central nucleus of the amygdala facilitates cue-dependent fear learning. C. A. AKERS*; J. SCHULKIN; M. S. CLARK; L. S. ZWEIFEL. *Univ. of Washington, Univ. of Washington, Univ. of Washington, Univ. of Washington.*

POSTER

747. Fear and Aversive Memories: Amygdala

Theme F: Cognition and Behavior

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

- 8:00 TT2 **747.01** Prenatal stress increases fear conditioning and unconditioned anxiety in adult rats. N. B. KEELE*; M. A. MEYER; P. D. FOSS; M. L. MCREYNOLDS. *Psychology & Neuroscience, Baylor Univ.*
- 9:00 TT3 **747.02** Fear conditioning circuitry in rats continues to emerge throughout periweaning period. A. D. DEAL; K. E. ERICKSON; M. A. BURMAN*. *Univ. of New England, Univ. of New England.*

- 8:00 TT18 **747.17** Amygdala CRF and glutamatergic systems after fear conditioning and extinction: Relationship to the magnitude of the unconditioned stimulus. M. J. LISIESKI*; H. S. YONO; A. DUDA; M. L. TOMASZYCKI; S. A. PERRINE. *Wayne State Univ. Sch. of Med., Wayne State Univ., Wayne State Univ.*
- 9:00 TT19 **747.18** ▲ CRF receptor localization in the basolateral nucleus of the amygdala. K. CALAKOS; E. P. BAUER*. *Barnard Col.*
- 10:00 TT20 **747.19** Amygdala shrinkage and enduring cognitive impairment following systemic inflammatory disorder. M. BOEHME; S. SCHMIDT; R. CLAUS; J. REICHENBACH; C. GASER; O. W. WITTE*. *Friedrich Schiller Univ. Jena, Friedrich Schiller Univ. Jena, Friedrich Schiller Univ. Jena, Friedrich Schiller Univ. Jena.*
- 11:00 TT21 **747.20** EphrinA4 mimetic peptide targeted to EphA binding site impairs the formation of long-term fear memory in lateral amygdala. M. DINES*; R. LAMPRECHT. *Univ. of Haifa.*
- 8:00 TT22 **747.21** Identification of neuronal networks encoding aversive and appetitive learning in the basolateral amygdala. S. CORREIA*; K. A. GOSENS. *MIT McGovern Inst., MIT-McGovern Inst. for Brain Res.*
- 9:00 TT23 **747.22** Generation of synchronized inhibition in BLA pyramidal cells by activation of mAChRs. L. LIU*; A. J. MCDONALD; D. D. MOTT. *Univ. South Carolina Sch. of Med.*
- 10:00 TT24 **747.23** ▲ The role of the amygdala in timing and sensory-specific learning following reward devaluation in the peak procedure. K. S. ELAYOUBY*; H. M. NASSER; A. R. DELAMATER. *CUNY Brooklyn Col., CUNY Brooklyn Col.*
- 11:00 TT25 **747.24** Comparison of inputs to active neurons in basolateral amygdala following different behavioral treatments. L. DEBLANDER*; H. FONTAINE; A. WEIBLE; H. WU; I. WICKERSHAM; C. KENTROS. *Univ. of Oregon, MIT, Norwegian Univ. of Sci. and Technol.*
- 8:00 TT26 **747.25** Facilitation and suppression of instrumental responding require connections between the lateral and central amygdala. V. CAMPESE*; R. GONZAGA; J. E. LEDOUX. *New York Univ., Nathan Kline Inst. for Psychiatric Res.*
- 9:00 TT27 **747.26** The role of amygdalar serotonergic neural system in fear memory. T. IZUMI*; Y. OHMURA; T. YOSHIDA; M. YOSHIOKA. *Hokkaido University, Col. of Med.*
- 10:00 TT28 **747.27** Amygdala lesions impair lever press avoidance acquisition of inbred Wistar-Kyoto rats, but not outbred Sprague Dawley rats. K. M. MOENCH*; D. P. MILLER; M. T. ALLEN; K. C. H. PANG; R. J. SERVATIUS. *Carthage Col., New Jersey Med. School, Rutgers, The State Univ. of New Jersey, Univ. of Northern Colorado, NJHCS, New Jersey Inst. of Technol. and Grad. Sch. of Biomed. Sciences, Rutgers, The State Univ. of New Jersey.*

POSTER

748. Fear and Aversive Memories: Other Regions and Circuits

Theme F: Cognition and Behavior

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

- 8:00 TT29 **748.01** The role of the basal forebrain cholinergic neurons in cued extinction memory. W. B. SCHREIBER*; S. KELLER; D. KNOX. *Univ. of Delaware.*
- 9:00 TT30 **748.02** The effects of pharmacogenetic excitation or silencing of vPAG on Pavlovian fear conditioning. C. ARICO*; G. P. MCNALLY. *Univ. of New South Wales, Univ. of New South Wales.*
- 10:00 TT31 **748.03** The roles of the lateral habenula and basolateral amygdala in punishment. P. JEAN-RICHARD DIT BRESSEL*; G. P. MCNALLY. *UNSW, UNSW.*
- 11:00 TT32 **748.04** Impairment of the basal ganglia dopamine system predicts an altered brain ageing in prenatally stressed rats. J. MARROCCO*; J. MAIRESSE; E. GATTA; H. BOUWALERH; M. CANNELLA; M. MOTOLESE; G. BATTAGLIA; A. PITTALUGA; P. CALABRESI; F. NICOLETTI; S. MACCARI. *IRCCS Ctr. Neurolesi bonino Pulejo, Univ. of Lille 1/CNRS, LIA (International Associated Laboratory: Univ. of Lille1/CNRS, France; IRCCS Neuromed and Sapienza Univ. of Rome, Italy), IRCCS Neuromed, Univ. of Genoa, IRCCS Fondazione Santa Lucia, Sapienza Univ. of Rome.*
- 8:00 TT33 **748.05** Habenulo-raphé circuit controls adaptive avoidance behavior. R. AMO*; F. FREDES; M. KINOSHITA; R. AOKI; H. AIZAWA; M. AGETSUMA; T. AOKI; T. SHIRAKI; H. KAKINUMA; M. MATSUDA; M. YAMAZAKI; M. TAKAHOKO; S. HIGASHIJIMA; N. MIYASAKA; T. KOIDE; Y. YABUKI; Y. YOSHIHARA; H. OKAMOTO. *RIKEN Brain Sci. Inst., Waseda Univ., Utsunomiya Univ., Okazaki Inst. for Integrative Bioscience, NIPS.*
- 9:00 TT34 **748.06** The A2 noradrenergic circuit: A primary source of unconditioned fear. C. M. TOURINO*; S. HAYTON; R. MALENKA; L. DE LECEA. *Stanford Univ.*
- 10:00 TT35 **748.07** ▲ 5-HT2C receptors in the bed nucleus of the stria terminalis (BNST) are implicated in the enhanced fear learning induced by SSRIs. E. PELRINE*; S. D. PASIK; E. P. BAUER. *Barnard Col.*
- 11:00 TT36 **748.08** Reversible inactivation of the bed nucleus of the stria terminalis blocks reinstatement but not renewal of extinguished fear. T. D. GOODE*; J. J. KIM; S. MAREN. *Texas A&M Univ., Texas A&M Univ.*
- 8:00 TT37 **748.09** Allopregnanolone in the bed nucleus of the stria terminalis modulates sexually dimorphic contextual fear in rats. G. M. ACCA*; S. MAREN; N. NAGAYA. *Texas A&M Univ. Inst. for Neurosci., Texas A&M Univ.*
- 9:00 TT38 **748.10** Corticotropin releasing factor type-1 receptor antagonism in the bed nucleus of the stria terminalis impairs contextual fear conditioning. A. ASOK*; J. SCHULKIN; J. B. ROSEN. *Univ. of Delaware, Georgetown Univ.*
- 10:00 TT39 **748.11** Regulation of repressed hypothalamic CRH expression by augmented maternal care. A. SINGH*; J. MOLET; J. COPE; T. Z. BARAM. *Univ. of California-Irvine, Univ. of California-Irvine, Univ. of California-Irvine.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 TT40 **748.12** Intraatrial 6-OHDA lesion in adult offspring of gestationally stressed dams. C. J. BAIER; M. E. PALLARES; E. ADROVER; M. R. KATUNAR; R. RAISMAN-VOZARI; M. C. ANTONELLI*. *Inst. de Investigaciones Bioquímicas, Inst. de Biología Celular y Neurociencia, División corrosión - INTEMA - Facultad de Ingeniería, Sorbonne Univ. UPMC UMR75 INSERM U1127, CNRS UMR 7225, Inst. de Cerveau et de la Moelle Epinière.*
- 8:00 TT41 **748.13** • Prenatal stress induces persistent postnatal changes in both dorsal and ventral forebrain inhibitory cell populations. S. RADHAKRISHNA; S. LUSSIER; H. E. STEVENS*. *Yale Sch. of Med., Yale Sch. of Med., Yale Univ. Sch. Med.*
- POSTER**
- 749. Memory Consolidation and Reconsolidation: Behavior**
- Theme F: Cognition and Behavior**
- Wed. 8:00 AM – *Walter E. Washington Convention Center, Halls A-C*
- 8:00 TT42 **749.01** Auditory imprinting in chickens: Role of PKR and thyroid hormones. G. BATISTA*; M. COSTA-MATTIOLI; J. PENA. *Albert Einstein Col. of Med., Baylor Col. of Med.*
- 9:00 TT43 **749.02** Refining the social transmission of food preference paradigm to investigate long-lasting associative olfactory memory in rats. B. BESSIÈRES; A. GIACINTI; N. MACREZ; O. NICOLE; B. BONTEMPI*. *Inst. of Neurodegenerative Diseases, CNRS UMR 5293, Inst. of Neurodegenerative Diseases, Univ. of Bordeaux.*
- 10:00 TT44 **749.03** Effects of acute swim stress on neutral visual object versus social olfactory recognition memory in Long-Evans rats. P. SEYMOUR*; M. HAYWOOD; R. HAMMER; T. TISKUS. *Carthage Col., Carthage Col.*
- 11:00 TT45 **749.04** Visual recognition in mice: Perceiving the relationship between 2d pictures of objects with their 3d physical form. S. J. COHEN*; R. W. STACKMAN, Jr. *Florida Atlantic Univ., Florida Atlantic Univ.*
- 8:00 TT46 **749.05** A tale of two memory systems: Differential involvement in two pattern separation tasks. T. TUNUR; L. CASTELAN; W. R. HAWLEY; P. E. GOLD; D. L. KOROL*. *Syracuse Univ., Franklin & Marshall Col.*
- 9:00 TT47 **749.06** Differential contributions of de novo and maintenance DNA methyltransferases to object memory processing in the rat hippocampus and perirhinal cortex: A double dissociation due to neurogenic processes? K. A. MITCHNICK*; S. CREIGHTON; M. O'HARA; B. E. KALISCH; B. D. WINTERS. *Univ. of Guelph, Univ. of Guelph, Univ. of Guelph.*
- 10:00 TT48 **749.07** Postnatal Arc/Arg3.1 ablation causes profound impairments in long-term memory consolidation. S. CASTRO-GOMEZ; X. GAO; S. GRAF; D. KUHL; O. OHANA*. *ZMNH- Univ. Med. Ctr. Hamburg-Eppendorf.*
- 11:00 TT49 **749.08** Revisiting the "behavioral tagging" hypothesis. C. M. FREIRE COBO*; C. LAO-PEREGRIN; J. U. FREY; S. FREY. *GRU.*
- 8:00 TT50 **749.09** Astrocytic mutant DISC1 and adolescent cannabis exposure synergistically interact to produce cognitive impairment in adulthood. B. ABAZIAN*; S. ABAZIAN; A. SHEVELKIN; O. MYCHKO; C. YANG; A. KAMIYA; M. PLETNIKOV. *Johns Hopkins Hosp.*
- 9:00 TT51 **749.10** CA1 specific deletion of Cav2.1 P/Q-type calcium channel impairs spatial and contexture memories. J. CHO*; D. JUNG; H. SHIN. *KIST, Univ. of Sci. and Technol., Inst. for Basic Sci.*
- 10:00 TT52 **749.11** Systematic profiling of cannabinoid effects on memory consolidation in rats. P. RATANO*; M. DURANTE; E. YADAO; V. TREZZA; P. CAMPOLONGO*. *Sapienza Univ. of Rome, Univ. "Roma Tre".*
- 11:00 TT53 **749.12** Overtrained contextual fear memories are resistant to hippocampal or perirhinal cortex damage, but not combined hippocampal and perirhinal cortex damage. E. H. SHEPHERD*; H. LEHMANN. *Trent Univ.*
- 8:00 TT54 **749.13** New learning accelerates memory system consolidation. J. HAUBRICH*; L. CASSINI; A. P. CRESTANI; F. SANTANA; L. DE OLIVEIRA ALVARES; J. A. QUILLFELDT. *Federal Univ. of Rio Grande Do Sul.*
- 9:00 TT55 **749.14** Deficits in M-current regulation lead to impaired consolidation of recognition memory in mice. A. KOSENKO*; S. MOFTAKHAR; D. L. GREENE; N. HOSHI. *Univ. of California, Irvine.*
- 10:00 TT56 **749.15** Memory retrieval-extinction procedure increases spontaneous recovery of nicotine seeking, but not spontaneous recovery of cocaine seeking. R. F. STRUIK; J. DEDONCKER; Y. MOURIK; J. PETERS; T. J. DE VRIES*. *NCA VU & Vumc.*
- 11:00 TT57 **749.16** Reactivation in the presence of distractor stimulus disrupt memory reconsolidation in rats. A. P. CRESTANI*; J. HAUBRICH; F. Z. BOOS; R. O. SIERRA; F. SANTANA; J. M. DURAN; Q. K. ZANONA; F. D. DUTRA; L. DE OLIVEIRA ALVARES; J. A. QUILLFELDT. *Univ. Federal Do Rio Grande Do Sul.*
- 8:00 TT58 **749.17** A novel UCS-retrieval extinction procedure prevents relapse to drug seeking. Y. LUO*; M. JIAN; Y. HAN; Y. XUE; J. LIU; Y. SHAHAM; L. LU. *Natl. Inst. On Drug Dependence, Peking Univ., Natl. Inst. on Drug Abuse, Natl. Inst. of Hlth.*
- 9:00 TT59 **749.18** Out-of-context activation memory: Temporal gradient of memory enhancement. B. B. LEE*; A. A. FENTON. *SUNY Downstate Med. Ctr., New York Univ.*
- 10:00 TT60 **749.19** Novel events facilitate persistence of contextual memory through consolidation and reconsolidation. S. WANG*. *Univ. of Edinburgh.*
- 11:00 TT61 **749.20** Is selective hippocampal cholinergic deafferentation sufficient to produce temporally graded retrograde amnesia? J. R. KÖPPEN; S. S. STUEBING; M. SIEG; A. A. BLACKWELL; P. BLANKENSHIP; E. D. GRISLEY; J. L. CHEATWOOD; D. G. WALLACE*. *Northern Illinois Univ., Southern Illinois Univ. Sch. of Med.*
- 8:00 TT62 **749.21** Reconsolidation of memories underlying instrumental responding. M. T. EXTON-MCGUINNESS; R. C. PATTON; L. B. SACCO; J. L. LEE*. *Univ. Birmingham.*
- 9:00 TT63 **749.22** Insulin-like growth factor-II affects on memory consolidation and persistence with restricted time window. S. PARK*; Y. LEE; Y. LEE; Q. GAO; Y. LEE; E. KIM; H. LEE; J. RYU. *Col. of Pharmacy, Kyung Hee Univ.*
- 10:00 TT64 **749.23** HDAC inhibition form a precise contextual memory and keep its accuracy over time. L. O. ALVARES*; F. D. DUTRA; L. PEDRAZA; A. P. CRESTANI; R. O. SIERRA; J. A. QUILLFELDT. *Federal Univ. Rio Grande do Sul, UFRGS.*

- 11:00 TT65 **749.24** Systemic Gastrin-Releasing Peptide attenuates reconsolidation of contextual fear memory in rats. A. MURKAR*; C. CAYER; P. KENT; J. JAMES; Z. MERALI. *Univ. of Ottawa, Univ. of Ottawa.*
- 8:00 TT66 **749.25** Xenon gas impairs reconsolidation of fear memories in a rat model of PTSD. M. J. KAUFMAN; S. E. LUKAS*; T. E. GILLIS; J. MANOUKIAN; E. G. MELONI. *McLean Hosp.*
- 9:00 TT67 **749.26** Protein kinase M zeta and the maintenance of hippocampal-dependent long-term memory. D. C. GIDYK*; S. H. DEIBEL; R. J. SUTHERLAND. *Univ. of Lethbridge, Univ. of Lethbridge.*
- 10:00 TT68 **749.27** Specific details of auditory memory and cortical plasticity are regulated by hdac3. K. BECHAY*; K. BIESZCZAD; M. WOOD. *Univ. of California- Irvine, Univ. of California- Irvine.*
- 11:00 TT69 **749.28** Adolescent immune system stimulation with the immunogen lipopolysaccharide (LPS) alters the acute-phase response and lithium chloride (LiCl)- induced conditioned place avoidance acquisition following a homotypic challenge in adulthood in the female rat. C. J. CLOUTIER*; M. KAVALIERS; K. OSSENKOPP. *Univ. of Western Ontario.*

POSTER

750. Animal Models: Recognition Memory and Novelty Detection

Theme F: Cognition and Behavior

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

- 8:00 TT70 **750.01** Functional evidence for a distal CA1-proximal subiculum- lateral entorhinal cortex network in recognition memory. N. H. NAKAMURA*; M. M. SAUVAGE. *Ruhr Univ. Bochum.*
- 9:00 TT71 **750.02** Representation of objects in the CA1 region of the hippocampus. T. GEILLER*; D. JUNG; J. CHOI; S. ROYER. *KIST, Korea Univ., KIST.*
- 10:00 TT72 **750.03** Effects of hippocampal administration of AMPA receptor antagonist NBQX on the retrieval of spontaneous object recognition memory. E. TAKANO*; K. YAMADA; Y. ICHITANI. *Univ. of Tsukuba.*
- 11:00 TT73 **750.04** Unique spike avalanches emerge during exploration of novel objects in rats. T. L. RIBEIRO*; S. RIBEIRO; M. COPELLI. *NIH, Federal Univ. of Pernambuco, Federal Univ. of Rio Grande do Norte.*
- 8:00 TT74 **750.05** Object-specific activity recorded from the hippocampus of male C57BL/6J mice and a novel behavioral paradigm to assess discrimination of moving 3D objects. H. N. ASGEIRSDOTTIR*; R. W. STACKMAN. *Florida Atlantic Univ.*
- 9:00 TT75 **750.06** Investigating recognition memory using immediate-early gene imaging in the rat brain. K. E. AMEEN-ALI*; M. J. EACOTT; J. A. AINGE; B. ROBERTSON; A. EASTON. *Durham Univ., Univ. of St Andrews.*
- 10:00 TT76 **750.07** Age dependent effect of toluene chronic exposure on recognition memory. N. POCHKHIDZE*; M. ZHVANIA; N. JAPARIDZE; M. DASHNIANI; M. BURJANADZE. *Ilia State Univ., Ilia State University, I.Beritashvili centre of Exptl. Biomedicine.*

- 11:00 TT77 **750.08** Maternal immune activation produces deficits in a displaced object recognition task. J. G. MILLAR; D. K. BILKEY*. *Univ. of Otago.*
- 8:00 TT78 **750.09** Hippocampal lesions do not affect measures of recollection and familiarity in rhesus monkeys. B. M. BASILE*; R. R. HAMPTON. *NIMH/NIH, Emory Univ.*
- 9:00 TT79 **750.10** Hippocampal lesions boost performance in the rat sequential reaction time task: Evidence that enhanced instrumental experience is not critical. S. BUSSE; R. K. SCHWARTING*. *Philipps-University of Marburg, Philipps-University of Marburg.*
- 10:00 TT80 **750.11** ▲ Noradrenergic and dopaminergic hippocampal activity encodes environmental novelty information. D. AVILA-AGUIRRE; F. BERMUDEZ-RATTONI*; P. MORENO-CASTILLA. *UNAM.*
- 11:00 TT81 **750.12** Involvement of hippocampal and prefrontal circuits in unpredictable situations and in novelty detection. A. GRUART*; I. FERNÁNDEZ-LAMO; R. SÁNCHEZ-CAMPUSANO; J. DELGADO-GARCÍA. *Pablo de Olavide Univ., Univ. Pablo de Olavide.*
- 8:00 TT82 **750.13** A shortened version of the object-in-place visual recognition paradigm detects spatial and object recognition memory in juvenile C75BL/6J mice. M. FLORES-MONTOYA; J. ALVAREZ; C. SOBIN*. *Univ. of Texas At El Paso, Univ. of Texas at El Paso, Univ. of Texas At El Paso.*
- 9:00 TT83 **750.14** ▲ Neonatal ethanol exposure on postnatal days 7-9 disrupts object-in-place learning and trace fear conditioning in juvenile rats. L. E. BRENNAN*; M. E. STANTON. *Univ. of Delaware.*
- 10:00 TT84 **750.15** ▲ Differential ontogeny of object-in-context and object-place-context memory in the rat. A. I. RAMSARAN*; M. E. STANTON. *Univ. of Delaware.*
- 11:00 TT85 **750.16** Neonatal alcohol exposure impairs incidental spatial learning in the juvenile rat: Effects of exposure scenario. S. R. WESTBROOK*; M. E. STANTON. *Univ. of Delaware.*
- 8:00 TT86 **750.17** Constitutively active glycogen synthase kinase-3 impairs cognitive task performance in mice. M. PARDO*; R. S. JOPE. *Univ. of Miami.*
- 9:00 TT87 **750.18** Assessing the role of euchromatin histone methyltransferase 1 (EHMT1) in dentate gyrus function using the touchscreen operant chamber. C. A. OOMEN*; M. BENEVENTO; T. JACOBS-VAN GOETHEM; H. VAN BOKHOVEN; N. NADIF KASRI; J. C. GLENNON. *Radboud Univ. Med. Ctr.*
- 10:00 TT88 **750.19** ● New automated touchscreen location and object-location tasks for the mouse: Effects of lesions of the hippocampus. C. KIM*; B. A. KENT; C. J. HEATH; T. J. BUSSEY; L. M. SAKSIDA. *Dept. of Psychology, Univ. of Cambridge, MRC and Wellcome Trust Behavioural and Clin. Neurosci. Institute, Univ. of Cambridge.*
- 11:00 TT89 **750.20** ● Implementing repetitive, vigorous and sustained lever-like responding in the rodent touchscreen apparatus. C. J. HEATH*; L. M. SAKSIDA; T. J. BUSSEY. *Univ. of Cambridge.*
- 8:00 TT90 **750.21** ● Paradoxically enhanced cognitive functions and dissociation with synaptic physiology in heterozygous Dlg4/PSD95 mutant mice. A. E. HORNER; N. O. AFINOWI; T. J. BUSSEY; L. M. SAKSIDA; S. G. GRANT, FRSE*; M. V. KOPANITSA. *Synome Ltd., Univ. of Cambridge, Edinburgh Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 TT91 **750.22** • Facilitation of spatial working memory performance following prefrontal infusion of adrenergic alpha1 agonist. M. HVOSLEF-EIDE*; B. M. FISHER; C. A. OOMEN; T. W. ROBBINS; L. M. SAKSIDA; T. J. BUSSEY. *Univ. of Cambridge, Univ. of Cambridge, Radboud Univ. Med. Ctr.*

POSTER

751. Oscillations and Learning

Theme F: Cognition and Behavior

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

- 8:00 TT92 **751.01** Serotonergic modulation of septo-hippocampal theta activity during spatial learning. B. GUTIÉRREZ-GUZMÁN; J. HERNÁNDEZ-PÉREZ; M. LÓPEZ-VÁZQUEZ; M. OLVERA-CORTES*. *Ctr. de investigación Biomédica de Michoacán, Inst. Mexicano Del Seguro So, Univ. Nacional Autónoma de México.*
- 9:00 UU1 **751.02** Entorhinal inter-laminar coupling underlies the encoding and recognition of visual stimuli. N. J. KILLIAN*; E. A. BUFFALO. *Massachusetts Gen. Hosp., Harvard Med. Sch., Univ. of Washington, Univ. of Washington.*
- 10:00 UU2 **751.03** Grid cells in superficial layers of medial entorhinal cortex replay waking activity patterns during subsequent rapid eye movement sleep. S. G. TRETTEL*; L. L. COLGIN. *The Univ. of Texas at Austin, The Univ. of Texas at Austin.*
- 11:00 UU3 **751.04** Closed-loop optogenetic control of hippocampal gamma oscillations *in vitro*. D. A. KUZMIN*; T. E. AKAM; E. NICHOLSON; I. OREN; F. CARPENTER; D. M. KULLMANN. *Univ. Col. London, Champalimaud Ctr.*
- 8:00 UU4 **751.05** Phase-reversal in the oscillatory entrainment of neural interactions is a general principal of learning. B. L. GRANNAN*; M. ESCALONA; R. HASLINGER; Z. WILLIAMS. *Massachusetts Gen. Hosp., Harvard Med. Sch.*
- 9:00 UU5 **751.06** Stochastic cortical population dynamics precisely predict taste ingestion-rejection decisions. N. MUKHERJEE*; J. X. LI; D. B. KATZ. *Brandeis Univ., Brandeis Univ.*
- 10:00 UU6 **751.07** Segregation of oscillatory processing roles for interneurons in ca1 in awake behaving animals. S. KEELEY*; J. RINZEL; A. A. FENTON. *New York Univ.*
- 11:00 UU7 **751.08** Novel acoustic stimuli can alter locomotor speed-theta relationship across the septotemporal axis of the hippocampus. L. L. LONG*; A. A. NORRIS; J. R. HINMAN; C. CHEN; I. H. STEVENSON; H. L. READ; M. A. ESCABI; J. J. CHROBAK. *Univ. of Connecticut, Univ. of Connecticut, Boston Univ.*
- 8:00 UU8 **751.09** Successful execution of working memory linked to synchronized high frequency gamma oscillations. J. YAMAMOTO*; J. SUH; D. TAKEUCHI; S. TONEGAWA. *MIT.*
- 9:00 UU9 **751.10** Spatial sequences during theta rhythms in the hippocampus are differentially modulated by slow and fast gamma rhythms. K. W. BIERI*; L. L. COLGIN. *The Univ. of Texas At Austin.*

10:00 UU10 **751.11** Differences in hippocampal single-unit response profiles during theta-contingent eyeblink classical conditioning early and late in training. J. J. CICCHESE*; R. D. DARLING; S. D. BERRY. *Miami Univ., Univ. of Mississippi Med. Ctr.*

11:00 UU11 **751.12** A nucleus incertus-septohippocampal circuit driving theta oscillations alters behavioral state - Implications for arousal and mood regulation. S. MA*; E. E. K. E. ONG-PALSSON; D. HAWKES; R. A. D. BATHGATE; A. L. GUNDLACH. *Florey Inst. of Neurosci. and Mental Hlth.*

8:00 UU12 **751.13** • High frequency neuronal oscillations in a cynomolgus macaque test of working memory following NMDA receptor antagonism. A. V. GOONAWARDENA*; J. HEISS; C. GLAVIS-BLOOM; E. BORRONI; D. ALBERATI; T. L. WALLACE. *SRI Intl., F. Hoffmann La Roche Ltd.*

9:00 UU13 **751.14** Theta-rhythmic drive between medial septum and hippocampus in slow wave sleep and microarousal: A Granger causality analysis. D. KANG*; M. DING; I. TOPCHY; L. SHIFFLETT; B. KOCIS. *J. Crayton Pruitt Family Dept. of Biomed. Engineering, Univ. of Florida, Dept. of Psychiatry, BIDMC, Harvard Med. Sch.*

10:00 UU14 **751.15** Theta activity in the monkey hippocampus during virtual navigation. M. J. JUTRAS*; J. A. SOLYST; E. A. BUFFALO. *Univ. of Washington, Univ. of Washington, Emory Univ.*

11:00 UU15 **751.16** New signal processing method reveals discrete structure of local field potential in hippocampus. Y. A. DABAGHIAN*; J. DEVITO. *Jan and Dan Duncan Neurolog. Res. Institute, Baylor Col. of Med., Rice Univ.*

8:00 UU16 **751.17** The correlation between gamma frequency and running speed differs for slow and fast gamma rhythms in freely behaving rats. C. ZHENG*; K. W. BIERI; S. G. TRETTEL; L. L. COLGIN. *Univ. of Texas At Austin, Univ. of Texas At Austin, Univ. of Texas At Austin.*

9:00 UU17 **751.18** Impact of Nav1.1 knockdown on CA1 in hippocampal function. S. SAKKAKI*; A. C. BENDER; A. GULLEDGE; P. LENCK-SANTINI. *Univ. Of Vermont, Geisel Sch. of Medicine at Dartmouth.*

10:00 UU18 **751.19** The spatial learning is associated with modifications of the theta oscillations on hippocampus layers and septal complex in the rat. J. HERNÁNDEZ-PÉREZ; B. GUTIÉRREZ-GUZMÁN; M. LÓPEZ-VÁZQUEZ; M. CERVANTES*; M. OLVERA-CORTÉS. *Ctr. de Investigación Biomédica de Michoacán (CIBIMI), Univ. Nacional Autónoma de México (UNAM), Fac. C. Medicas y Biologicas.*

POSTER

752. Cortical and Hippocampal Circuits: Timing and Temporal Processing II

Theme F: Cognition and Behavior

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

- 8:00 UU19 **752.01** Neural activity in the medial prefrontal cortex changes across a range of time scales. Z. TIGANJ*; J. KIM; M. JUNG; M. W. HOWARD. *Boston Univ., KAIST.*
- 9:00 UU20 **752.02** Properties and synaptic targets of calretinin-positive interneuron-specific interneurons in the mouse CA1 hippocampus. O. CAMIRÉ*; L. TYAN; S. CHAMBERLAND; E. MAGNIN; L. TOPOLNIK. *IUSMQ.*

- 10:00 UU21 **752.03** Organization of neocortical and amygdalar input into the perirhinal and entorhinal cortex. N. L. CAPPAERT*; J. G. P. WILLEMS; P. J. P. CHAMEAU; T. R. WERKMAN; W. J. WADMAN. *Univ. Amsterdam*.
- 11:00 UU22 **752.04** A system subsuming prefrontal cortical AMPA-R and the hippocampal CA3 area controls the integration of spatial- and temporal-order memory into episodic memory. O. Y. CHAO; J. P. HUSTON*; M. A. DE SOUZA SILVA. *Univ. of Dusseldorf, Univ. of Dusseldorf*.
- 8:00 UU23 **752.05** Stimulus compounding produces a "migration effect" in rats. B. J. DECORTE; M. S. MATELL*. *Villanova Univ.*
- 9:00 UU24 **752.06** Responses of monkey V4 neurons to Glass patterns. Y. FU*; M. BASSO. *Semel Inst. of Neurosci. and Human Behavior, UCLA*.
- 10:00 UU25 **752.07** Spatial rate/phase codes provide landmark-based error correction in a temporal model of theta cells. J. MONACO*; H. T. BLAIR; K. ZHANG. *Johns Hopkins Univ. Sch. of Med., UCLA*.
- 11:00 UU26 **752.08** NMDA receptor regulates phase lock firing of CA1 principal cells during theta oscillation. M. FALLAHNEZHAD; T. KITANISHI; N. KITANISHI; A. TASHIRO*. *Nanyang Technological Univ., Univ. of Warwick, Norwegian Univ. of Sci. and Technol.*
- 8:00 UU27 **752.09** The neuronal microcircuits of the medial septal nucleus and the diagonal band of Broca. H. KANEKO*; L. SOSULINA; F. FUHRMANN; D. FRIEDRICHS; A. GAUCHEL; D. JUSTUS; S. SCHOCH-MCGOVERN; S. REMY. *German Ctr. for Neurodegenerative Dis. (DZNE), Univ. Hosp. of Bonn, Univ. Hosp. of Bonn*.
- 9:00 UU28 **752.10** Effect of an intra-dorsal striatum injection of a muscarinic acetylcholine m1 receptors blocker, pirenzepin, on memorization of duration in rats. T. HATA*. *Doshisha Univ.*
- 10:00 UU29 **752.11** A single cell type in the medial septum controls initiation and intensity of movement and matches movement intensity to the hippocampal theta rhythm. D. JUSTUS*; F. FUHRMANN; H. KANEKO; L. SOSULINA; T. BEUTEL; D. FRIEDRICHS; S. SCHOCH-MCGOVERN; M. FUHRMANN; S. REMY. *German Ctr. for Neurodegenerative Dis. (DZNE), Univ. of Bonn Med. Sch., Univ. of Bonn Med. Sch.*
- 11:00 UU30 **752.12** Lesions of the retrosplenial cortex impair temporal learning. T. P. TODD*; H. C. MEYER; D. J. BUCCI. *Dartmouth Col.*
- 8:00 UU31 **752.13** Identification of neural circuitry for anticipation by whole-brain calcium imaging in larval zebrafish. R. K. CHENG; T. B. PENNEY*; S. JESUTHASAN. *A*Star, Natl. Univ. of Singapore, Duke-NUS Grad. Med. Sch., Natl. Univ. of Singapore*.
- 9:00 UU32 **752.14** Two-stage model for concurrent interval timing in non-human primates. M. R. KLEINMAN*; H. SOHN; D. LEE. *Yale Univ. Sch. of Med.*
- 10:00 UU33 **752.15** How does temporal spacing influence hippocampal ensemble representations for two contexts? T. E. WHITE*; T. CHANG; V. LIAO; J. CZERNIAWSKI; J. F. GUZOWSKI. *Univ. of California, Irvine*.
- 11:00 UU34 **752.16** Green tea supplements increase resilience to emotional distractions in an interval timing task. A. R. MATTHEWS*; B. K. BOGOEV; B. Z. YANG; M. BUHUSI; C. V. BUHUSI. *Utah State Univ.*
- 8:00 UU35 **752.17** A hybrid of intracellular and synaptic mechanisms supports a robust *in vivo*-like persistent firing. M. YOSHIDA*; A. JOCHEMS. *Ruhr Univ. Bochum, Ruhr Univ. Bochum*.
- 9:00 UU36 **752.18** Synergy and redundancy in timescale dependent multiplex networks of hippocampal neurons. N. TIMME*; S. ITO; M. MYROSHNYCHENKO; F. YEH; E. HIOLSKI; A. M. LITKE; J. M. BEGGS. *Indiana Univ., Univ. of California at Santa Cruz, Indiana Univ., Univ. of California at Santa Cruz*.
- 10:00 UU37 **752.19** Hippocampal-prefrontal coordination is involved in recall of learned sequences in rats. S. ISHINO*; S. TAKAHASHI; Y. SAKURAI. *Grad. Sch. of Letters, Kyoto Univ., Doshisha Univ.*
- 11:00 UU38 **752.20** The processing of space, time, and episodes along the proximo-distal axis of CA1 and CA3. Z. BEER*; K. RENTZING; M. SAUVAGE. *Mercator Res. Group (FAM), Ruhr Univ. Bochum, Mercator Res. Group*.
- 8:00 UU39 **752.21** Both dentate spikes and sharp wave ripples contribute to the cortico-hippocampal conversation. D. B. HEADLEY*; D. PARE. *Rutgers, The State Univ. of New Jersey*.
- 9:00 UU40 **752.22** Theta-privileged interaction of nucleus reunions and hippocampus. P. P. QUILICHINI*; L. NALLET KHOSROFIAN; A. GHESTEM; C. BERNARD. *INSERM U1106 INS*.

POSTER

753. Prefrontal and Striatal Systems II

Theme F: Cognition and Behavior

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

- 8:00 UU41 **753.01** VTA-dependent regulation of neuronal synchrony and entropy in the PFC emerges along trajectories of balanced excitation-inhibition. C. J. MININNI; B. S. ZANUTTO*; S. E. LEW. *IByME - CONICET, Univ. Buenos Aires-CONICET, Inst. de Ingenieria Biomédica - UBA*.
- 9:00 UU42 **753.02** ▲ Dendritic morphology in dorsal striatum changes as a result of habit-related context exposure. M. SVOBODA*; A. L. SASSON; M. SHEGDA; J. C. HORVITZ; E. H. SIMPSON; K. T. TAYLOR; P. D. BALSAM. *Columbia Univ., Barnard Col., The City Col. of New York, New York State Psychiatric Inst.*
- 10:00 UU43 **753.03** Spontaneous dynamics of deep-layer prefrontal cortical populations. A. S. BLAESER*; A. V. NURMIKKO. *Brown Univ.*
- 11:00 UU44 **753.04** Dopamine and serotonin transporter function in rat orbitofrontal cortex as contributors to impulsive choice and impulsive action. M. DARNA*; J. J. CHOW; J. R. YATES; J. S. BECKMANN; R. CHARNIGO; M. T. BARDON; L. P. DWOSKIN. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky*.
- 8:00 UU45 **753.05** Neurocircuitry and receptor mechanisms underlying the differential sensitivity of prefrontal cognitive processes to psychostimulants. R. C. SPENCER*; J. S. SHUMSKY; B. D. WATERHOUSE; C. W. BERRIDGE. *Univ. of Wisconsin, Univ. of Wisconsin, Drexel Univ.*
- 9:00 UU46 **753.06** Dopaminergic modulation in corticostriatal regions mediating stressor controllability. R. A. DAUT*; J. AMAT; L. R. WATKINS; S. F. MAIER. *Univ. of Colorado*.

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 10:00 UU47 **753.07** Neural activity in prelimbic cortex is required selectively for the maintenance of working memory. J. WISKERKE*; J. Y. CHOI; H. AKHLAGHPOUR; E. AHMED; N. K. MEHTA; Y. VAN MOURIK; T. PATTIJ; I. B. WITTEN. *Princeton Univ., VU university medical center.*
- 11:00 UU48 **753.08** Stochastic behavior in rats and its gating by the anterior cingulate cortex. D. G. TERVO*; M. PROSKURIN; M. MANAKOV; M. KABRA; A. VOLLMER; K. BRANSON; A. KARPOVA. *Janelia Farm Res. Campus.*
- 8:00 UU49 **753.09** Responses of medial prefrontal cortex and medial auditory thalamus during acquisition, expression and extinction of trace eyelid conditioning. K. THAKKAR*; S. R. FRIEDRICH; L. C. HOFFMANN; H. E. HALVERSON; M. D. MAUK. *The Univ. of Texas At Austin, The Univ. of Texas at Austin.*
- 9:00 UU50 **753.10** • Using connectivity to study homology of orbitofrontal and cingulate cortices in primate and rat. S. N. HABER*; S. R. HEILBRONNER; J. RODRIGUEZ-ROMAGUERA; G. J. QUIRK. *Univ. Rochester, Univ. of Puerto Rico Sch. of Med.*
- 10:00 UU51 **753.11** Daily exposure to novel environments in young mice improves motor patterns in later life or daily exposure to novel environments in young mice improves motor patterns with age. S. L. HONG*; S. J. BARTON; G. V. REBEC. *Ohio Univ., Indiana Univ. Bloomington.*
- 11:00 UU52 **753.12** Topography of projections from the subthalamic nucleus to the prefrontal cortex. A. C. BOSTAN*; R. P. DUM; P. L. STRICK. *Univ. of Pittsburgh, Res. Service, VA Med. Ctr.*
- 8:00 UU53 **753.13** mGluR2/3 signaling in the nucleus accumbens shell restores goal-directed behavior. J. M. BARKER*; D. LENCH; J. CHANDLER. *Med. Univ. of South Carolina.*
- 9:00 UU54 **753.14** Optogenetic manipulation of context-dependent resistance to extinction in mice. S. M. KATRANCHA*; S. L. QUICK; B. B. LAND; R. J. DILEONE; J. R. TAYLOR. *Yale Univ.*
- 10:00 UU55 **753.15** Impaired behavioral flexibility and altered cortical firing in a murine moderate prenatal alcohol exposure model. K. L. MARQUARDT*; R. SIGDEL; J. CAVANAGH; J. BRIGMAN. *Univ. of New Mexico, Univ. of New Mexico.*
- 11:00 UU56 **753.16** Face processing in the monkey orbitofrontal cortex. E. BARAT*; G. REYMOND; S. WIRTH; J. DUHAMEL. *Ctr. of Cognitive Neurosci. CNRS.*
- 8:00 UU57 **753.17** Role of prelimbic cortex and its connections to dorsomedial striatum in rewarded learning. C. R. PINARD*; H. C. BERGSTROM; O. BUKALO; L. ZWEIFEL; A. HOLMES. *NIAAA/NIH, Univ. of Washington.*
- 9:00 UU58 **753.18** Differentiating contributions of dorsolateral and dorsomedial striatum to reward learning. H. C. BERGSTROM*; C. L. PICKENS; C. R. PINARD; O. BUKALO; L. R. HALLADAY; A. HOLMES. *Natl. Inst. on Alcohol Abuse and Alcoholism.*
- 10:00 UU59 **753.19** Projections from the amygdala to subregions of the anterior cingulate cortex in macaque monkeys. Y. KIM*; H. SAKATA; N. KONOIKE; S. MIYACHI; K. NAKAMURA. *Primate Res. Institute, Kyoto Univ.*
- 11:00 UU60 **753.20** Projections from the temporal cortical areas to the subgenual portion of the anterior cingulate cortex in macaque monkeys. H. SAKATA*; Y. KIM; N. KONOIKE; S. MIYACHI; K. NAKAMURA. *Primate Res. Institute, Kyoto Univ.*
- 8:00 UU61 **753.21** Interactions between medial prefrontal cortex and dorsomedial striatum are necessary for working memory span in rats. D. A. DAVIES*; Q. GREBA; J. C. SELK; J. G. HOWLAND. *Univ. of Saskatchewan.*
- 9:00 UU62 **753.22** Identification of dopamine and norepinephrine receptor transcripts in prefrontal cortical pyramidal cells defined on the basis of projection target. H. WANG*; M. J. M. MURPHY; M. S. SIMMONS; J. H. MEADOR-WOODRUFF; A. Y. DEUTCH. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr., Univ. of Alabama at Birmingham, Vanderbilt Univ. Med. Ctr.*

POSTER

754. Fear and Aversive Memories: Hippocampus

Theme F: Cognition and Behavior

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

- 8:00 UU63 **754.01** Pre-training lesion to dorsal Hippocampus changes connectivity among amygdala subnuclei after contextual fear conditioning. C. A. COELHO*; J. R. SATO; T. L. FERREIRA; J. C. K. SOARES; M. M. OLIVEIRA. *Univ. Federal De Sao Paulo, Univ. Federal do ABC.*
- 9:00 UU64 **754.02** Epigenetic mechanisms mediating contextual fear conditioning and generalization in the hippocampus. J. C. HEBERT*; R. K. YUAN; I. A. MUZZIO. *Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 10:00 UU65 **754.03** • Subicular and CA1 neurons projecting to the medial prefrontal cortex and basal amygdala exhibit context-dependent Fos expression after renewal of extinguished fear. J. JIN*; S. MAREN. *Inst. For Neuroscience, Texas A&M Univ., Dept. of Psychology.*
- 11:00 UU66 **754.04** Gadd45a plays a crucial role in the consolidation of hippocampal-dependent memories. A. APARISI REY; M. S. GIERL; S. SHARPOV; E. KARAUANOV; S. GUGGENHUBER; F. REMMERS; W. H. GRUHN; W. KILB*; A. CONRAD; H. J. LUHMANN; C. NIEHRS; B. LUTZ. *Univ. Med. Ctr. of the Johannes Gutenberg Univ., Inst. of Mol. Biol., Univ. Med. Ctr. of the Johannes Gutenberg Univ., Johannes-Gutenberg Univ.*
- 8:00 UU67 **754.05** Fibroblast growth factor 2 modulates anxiety behavior and the hippocampal-hypothalamic pituitary axis. N. SALMASO*; M. EL SAYED; Q. REN; M. E. MARAGNOLI; R. M. SAPOLSKY; R. DUMAN; F. M. VACCARINO. *Yale Univ., Yale Univ., Stanford Univ.*
- 9:00 UU68 **754.06** Long-range GABAergic neurons participate in reciprocal interconnections between the rat basolateral amygdala and the parahippocampal region, but not the prefrontal cortex. A. J. MCDONALD*; V. ZARIC. *Univ. South Carolina Sch. Med.*
- 10:00 UU69 **754.07** Learning-dependent synaptic diversity in hippocampal CA1 neurons: Encoding of context but not retrieval induces rapid plasticity at excitatory and inhibitory synapses. Y. SAKIMOTO*; D. MITSUSHIMA. *Yamaguchi Univ.*
- 11:00 UU70 **754.08** Artificial association of information residing in hippocampus and amygdala. N. OHKAWA*; Y. SAITO; A. SUZUKI; S. TSUJIMURA; E. MURAYAMA; H. NISHIZONO; M. MATSUO; Y. TAKAHASHI; M. NAGASE; Y. K. SUGIMURA; A. M. WATABE; F. KATO; K. INOKUCHI. *Univ. of Toyama, CREST, JST, Univ. of Toyama, Jikei Univ. Sch. of Med., Nagoya Univ. Grad. Sch. of Med.*

- 8:00 UU71 **754.09** Relaxin-3/RXFP-3 signalling in control of innate and learned affective behaviours - effect of acute and chronic RXFP3 modulation and role of ventral hippocampus. V. RYTOVA*; D. HAWKES; D. E. GANELLA; S. H. ONG; F. SHABANPOOR; M. A. HOSSAIN; J. D. WADE; R. A. D. BATHGATE; S. MA; A. L. GUNDLACH. *Univ. of Melbourne.*
- 9:00 UU72 **754.10** Effects of single-prolonged stress on adult hippocampal neurogenesis. E. RODRIGUEZ*; I. LIBERZON. *Univ. of Michigan, Univ. of Michigan.*
- 10:00 UU73 **754.11** Learning-dependent synaptic plasticity at CA1 synapses: Laterality and a possible location of contextual memory in the hippocampus. J. MIZUNO*; Y. SAKIMOTO; H. KIDA; Y. ONO; Y. KAMIYA; D. MITSUSHIMA. *Kanagawa Dent. Univ., Yamaguchi University, Grad. Sch. of Med., Meiji Univ. Sch. of Sci. and Technol., Niigata Univ. Grad. Sch. of Med.*
- 11:00 UU74 **754.12** Adult hippocampal neurogenesis and trace fear conditioning: A role in parceling associative fear among ambiguous competing cues? D. SEO*; M. NGUYEN; F. SHUE; M. A. CARILLO; R. HEN; M. R. DREW. *The Univ. of Texas At Austin, Columbia Univ.*
- 8:00 UU75 **754.13** Bidirectional reversal of the valence associated with the hippocampal memory engram. R. L. REDONDO*; J. KIM; A. L. ARONS; S. RAMIREZ; X. LIU; S. TONEGAWA. *MIT, Howard Hughes Med. Inst.*
- 9:00 UU76 **754.14** Metformin injections into the hippocampus facilitate the extinction of cocaine associated drug memory. Z. DING*; S. SUN; L. LU. *Natl. Inst. On Drug Dependence, Natl. Institute on drug dependence, Natl. Inst. on Drug Dependence.*

POSTER

755. Reward: Dopamine II

Theme F: Cognition and Behavior

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

- 8:00 UU77 **755.01** Optogenetic excitation of midbrain dopamine neurons and an afferent pathway: Implications of electrochemical and behavioral sequelae for the descending-path hypothesis. M. COSSETTE*; I. TRUJILLO-PISANTY; I. WITTEN; K. DEISSEROTH; P. SHIZGAL. *Concordia Univ., Princeton Univ., Stanford Univ.*
- 9:00 UU78 **755.02** Three dimensional modeling of optical self-stimulation of midbrain dopamine neurons in TH::Cre rats. I. TRUJILLO-PISANTY*; D. PALACIOS; M. COSSETTE; K. CONOVER; I. WITTEN; K. DEISSEROTH; P. SHIZGAL. *Concordia Univ., Concordia Univ., Princeton Univ., Stanford Univ.*
- 10:00 UU79 **755.03** Parallel excitatory and inhibitory pathways of basal ganglia and lateral habenula underlie the learned responses under stochastic schedule of reward. D. WANG*; H. ZHOU. *Beijing Normal Univ.*
- 11:00 UU80 **755.04** Dopamine D2-receptor blockage stabilizes orbitofrontal reward representations. T. KAHNT*; S. C. WEBER; H. HAKER; T. W. ROBBINS; P. N. TOBLER. *Dept. of Economics, UZH, ETH Zurich, Univ. of Cambridge.*
- 8:00 UU81 **755.05** Upregulation of dopamine D2 receptors in the nucleus accumbens indirect pathway enhances motivation. E. F. GALLO*; B. FENG; J. JAVITCH; C. KELLENDONK. *Columbia Univ.*
- 9:00 UU82 **755.06** Central glucagon-like peptide-1 receptor activation mediates lithium chloride-induced dopamine suppression in the nucleus accumbens. S. M. FORTIN*; J. J. CONE; M. F. ROITMAN. *Univ. of Illinois At Chicago.*
- 10:00 UU83 **755.07** Microinjections of a dopamine D1 receptor antagonist into the ventral tegmental area blocks the expression of cocaine conditioned place preference in rats. E. J. PAWUL*; M. MANUSZAK; D. ARASTEHMANESH; R. RANALDI. *The Grad. Ctr., City Univ. of New York, Queens College/ CUNY.*
- 11:00 UU84 **755.08** Monkey choice behavior is biased by phasic stimulation of channelrhodopsin expressing dopamine neurons. W. R. STAUFFER*; A. LAK; A. YANG; M. BOREL; O. PAULSEN; E. BOYDEN; W. SCHULTZ. *Univ. of Cambridge, MIT.*
- 8:00 UU85 **755.09** Optogenetic dissection of the mesohabenular projection system in mice. S. LAMMEL; E. STEINBERG*; C. FÖLDY; N. R. WALL; K. BEIER; R. C. MALENKA. *Stanford Univ.*
- 9:00 UU86 **755.10** Distinct midbrain dopamine neuron subpopulations contribute to cue attraction, psychomotor activation, and reinforcement. B. T. SAUNDERS*; P. H. JANAK. *Univ. of California-San Francisco.*
- 10:00 UU87 **755.11** Chemogenetic inhibition of mesolimbic dopamine is insufficient to condition taste aversion. S. M. CONWAY*; S. M. FORTIN; C. G. SINON; J. E. MCCUTCHEON; M. F. ROITMAN. *Univ. of Illinois At Chicago.*
- 11:00 UU88 **755.12** Vesicular co-release of GABA with glutamate in the lateral habenula: Implications for depression. S. SHABEL*; C. PROULX; J. PIRIZ; R. MALINOW. *UCSD, Inst. of Physiology, Mol. Biology, and Neurosci.*
- 8:00 UU89 **755.13** Identifying inputs to dopamine neurons in the dorsal raphe and establishing their functional role. G. A. MATTHEWS*; C. M. VANDER WEELE; R. E. THOMAS; N. GOLAN; I. R. WICKERSHAM; K. M. TYE. *Picower Inst. For Learning & Memory, MIT, Northeastern Univ., McGovern Inst. for Brain Research, MIT.*
- 9:00 UU90 **755.14** Paradoxical excitation of VTA neurons during electrical stimulation of the fasciculus retroflexus in rat sagittal brain slices. P. L. BROWN*; P. D. SHEPARD. *Univ. of Maryland Baltimore, Univ. of Maryland Baltimore.*
- 10:00 UU91 **755.15** Phasic dopamine signaling tracks the reward value of sodium based on physiological state. J. J. CONE*; S. M. FORTIN; J. E. MCCUTCHEON; M. F. ROITMAN. *Univ. of Illinois At Chicago, Univ. of Leicester.*

POSTER

756. Motivation and Emotions: Reward Circuitry

Theme F: Cognition and Behavior

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

- 8:00 UU92 **756.01** Optical stimulation of nucleus accumbens shell-projecting basolateral amygdala neurons suppresses Pavlovian cue-conditioned alcohol seeking and unconditioned home cage alcohol drinking. Z. MILLAN*; P. H. JANAK. *Univ. of California San Francisco.*

* Indicated a real or perceived conflict of interest, see page 153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 9:00 VV1 **756.02** Bi-directional modulation of incubation of cocaine craving by silent synapse-based remodeling of prefrontal cortex to accumbens projections. Y. Y. MA*; B. R. LEE; X. WANG; C. GUO; L. LIU; Y. LAN; J. J. BALCITA-PEDICINO; R. CUI; S. R. SESACK; Y. SHAHAM; O. M. SCHLÜTER; Y. H. HUANG; Y. DONG. *Univ. of Pittsburgh, Allen Institute, Northeastern Normal Univ., Yanbian Univ., NIH, European Neurosci. Inst.*
- 10:00 VV2 **756.03** Evidence for long-range projecting parvalbumin-expressing (PV+) neurons in the lateral habenula that directly target dopaminergic and serotonergic neurons. L. POZZI*; I. POLLAK DOROCIC; I. LAZARIDIS; Y. XUAN; M. CARLEN; K. MELETIS. *Karolinska Institutet.*
- 11:00 VV3 **756.04** The LHb regulates the dorsal raphe nucleus through a direct and an indirect pathway. C. PROULX*; C. MOLINA; R. MALINOW. *Univ. of California, San Diego (UCSD).*
- 8:00 VV4 **756.05** Dissecting neural circuitry involved with rewarding stimulation of the supramammillary nucleus. A. KESNER*; S. IKEMOTO. *Natl. Inst. of Drug Abuse.*
- 9:00 VV5 **756.06** Sources of dopamine fibers in the paraventricular nucleus of the thalamus. S. LI*; G. J. KIROUAC. *Univ. of Manitoba, Univ. of Manitoba.*
- 10:00 VV6 **756.07** Decreasing excitability of indirect-pathway medium spiny neurons acutely, but not chronically, leads to increased motivation in an endophenotypic model of schizophrenia. F. D. DE CARVALHO*; M. CAZORLA; M. SHEGDA; E. B. HOLZNER; M. J. F. LUNG; P. D. BALSAM; C. KELLENDONK. *Columbia Univ. / NYSPI, Inst. Curie, Barnard Col., Columbia Col.*
- 11:00 VV7 **756.08** Ventral pallidum neurons encode reward-seeking in response to an instrumental incentive stimulus. J. M. RICHARD*; H. L. FIELDS. *Univ. of California, San Francisco.*
- 8:00 VV8 **756.09** Evidence of model-based and model-free reinforcement learning in prefrontal cortex and striatal neurons. B. MIRANDA*; N. MALALASEKERA; P. DAYAN; S. KENNERLEY. *Univ. Col. of London, Univ. Col. - Inst. of Neurol., Univ. Col. of London, Univ. Col. of London - Inst. of Neurol.*
- 9:00 VV9 **756.10** Bimodal role for nucleus accumbens dynorphinergic neurons in aversion and reward. R. AL-HASANI*; J. G. MCCALL; J. M. WONG; O. M. MABROUK; N. A. CROWLEY; G. SCHMITZ; D. Y. HONG; M. J. KRASHES; B. B. LOWELL; T. L. KASH; R. T. KENNEDY; M. R. BRUCHAS. *Washington Univ., Univ. of Michigan, Univ. of North Carolina, Chapel Hill, Harvard Univ.*
- 10:00 VV10 **756.11** Dissecting nociceptin receptor modulation of reward. S. SPANGLER*; E. E. PETERSON; R. AL-HASANI; W. PLANER; J. MCCALL; G. D. STUBER; T. KASH; T. JHOU; M. R. BRUCHAS. *Washington Univ. In St. Louis, Univ. of North Carolina, Chapel Hill, Univ. of North Carolina, Chapel Hill, Med. Univ. of South Carolina.*
- 11:00 VV11 **756.12** Dopaminergic and noradrenergic systems contribution to motivation: Pharmacological study in rhesus macaques. C. I. JAHN*; N. BORDERIES; C. VARAZZANI; S. BOURET. *ICM, MBB.*
- 8:00 VV12 **756.13** Differential integration of reward value and effort cost by noradrenaline and dopamine neurons: A direct comparison in behaving monkeys. C. VARAZZANI*; A. SAN-GALLI; S. BOURET. *ICM - Brain & Spine Inst.*

POSTER

757. Human Reward

Theme F: Cognition and Behavior

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

- 8:00 VV13 **757.01** The neural basis of familial obesity risk: fMRI responses to food words in lean adolescents with obese/overweight mothers. S. CARNELL*; L. BENSON; V. K. CHANG; Z. WANG; A. GELIEBTER; B. S. PETERSON. *Johns Hopkins Univ. Sch. of Med., Columbia Univ. Col. of Physicians & Surgeons.*
- 9:00 VV14 **757.02** Synchronized brain responses during passive viewing of a humorous movie. T. IIDAKA*; A. HAYASHI; H. ISODA. *Nagoya University, Grad. Sch. of Med., Nagoya Univ.*
- 10:00 VV15 **757.03** Prepulse inhibition of startle is reduced by highly palatable food stimuli in men relative to women. S. PALIT*; J. DELVENTURA; B. KUHN; M. PAYNE; L. FITTER; D. SIMON; J. RHUDY. *Univ. of Tulsa.*
- 11:00 VV16 **757.04** The neuroanatomical basis of general self-efficacy. A. SUGIURA*; R. AOKI; Y. YOMOGIDA; M. MATSUMOTO; K. MURAYAMA; K. IZUMA; T. HAJI; A. SAITO; T. HASEGAWA; K. MATSUMOTO. *Dept. of Life Sciences, GSAS, Univ. of Tokyo, Japan Society for the Promotion of Sci., Brain Sci. Institute, Tamagawa Univ., Caltech, Univ. of Reading, Brain Activity Imaging Center, ATR-Promotions.*
- 8:00 VV17 **757.05** Smart goals, slow habits? Individual differences in processing speed and working memory capacity moderate the balance between habitual and goal-directed choice behaviour. Q. J. HUYS*; D. J. SCHAD; E. JUENGER; M. SEBOLD; M. GARBUSOW; N. BERNHARDT; A. JAVADI; U. ZIMMERMANN; M. SMOLKA; A. HEINZ; M. RAPP. *Translational Neuromodeling Unit / UZH & ETHZ, Dept. of Psychiatry and Psychotherapy, Charité Universitätsmedizin Berlin, Dept. of Psychiatry and Psychotherapy, Technische Univ. Dresden, Univ. Col. London, Univ. Potsdam.*
- 9:00 VV18 **757.06** Dopaminergic malfunction: The link between impulsivity and reinforcement learning? S. NEBE*; N. B. KROEMER; D. J. SCHAD; M. SEBOLD; F. SCHLAGENHAUF; A. HEINZ; Q. J. M. HUYS; M. A. RAPP; M. N. SMOLKA. *Technische Univ. Dresden, Charité Universitätsmedizin Berlin, ETH Zürich and Univ. of Zürich, Univ. of Potsdam.*
- 10:00 VV19 **757.07** By force of habit: Hyper- and hyporeactivity to reward in orbitofrontal cortex in overweight. N. B. KROEMER*; S. POOSEH; F. WUTTIG; M. N. SMOLKA. *TU Dresden.*
- 11:00 VV20 **757.08** Trading goals and habits: The role of dorsolateral PFC structure supporting working memory. D. J. SCHAD*; M. GARBUSOW; M. SEBOLD; E. FRIEDEL; C. HÄGELE; S. NEBE; N. B. KROEMER; H. WALTER; J. GALLINAT; M. N. SMOLKA; A. HEINZ; M. A. RAPP; T. WÜSTENBERG; Q. J. M. HUYS. *Charité, Univ. Med. Berlin, Technische Univ. Dresden, Charité, Univ. Med. Berlin, Univ. Potsdam, ETH Zurich and Univ. of Zurich.*
- 8:00 VV21 **757.09** Modulation of goal-directed versus habitual behavior by seizure-induced stressors. J. C. NEILL*. *Long Island Univ.*

- 9:00 VV22 **757.10** Weight loss driven recovery of μ -opioid receptor availability is associated with lowered trait anxiety in the morbidly obese. H. K. KARLSSON; J. J. TUULARI; L. TUOMINEN; J. HIRVONEN; P. SALMINEN; P. NUUTILA; L. NUMMENMAA*. *Turku PET Ctr., Turku Univ. Hosp., Turku Univ. Hosp., Aalto Univ.*
- 10:00 VV23 **757.11** Oxytocin administration modulates striatal and prefrontal responses to reward. L. NAWIJN*; M. VAN ZUIDEN; S. B. J. KOCH; J. L. FRIJLING; D. J. VELTMAN; M. OLFF. *Academic Med. Ctr., VU Univ. Med. Ctr., Arq Psychotrauma Expert Group.*
- 11:00 VV24 **757.12** Prosocial learning: Vicarious reinforcement when choosing for others. P. L. LOCKWOOD*; M. A. J. APPS; J. P. ROISER; E. VIDING. *Univ. Col. London, Univ. of Oxford, Univ. Col. London.*
- 8:00 VV25 **757.13** How reward information reaches VTA depends on task context: A DCM study. M. T. VU*; E. J. SUMNER; I. C. BALLARD; V. P. MURTY; S. A. CHONG; M. SUBRAMANIAM; M. S. KRAUS; J. S. POH; K. DORAIRAJ; S. N. YAAKUB; J. Y. J. THONG; J. LEE; M. W. CHEE; R. S. E. KEEFE; R. A. ADCOCK. *Duke Univ., Duke Univ., Stanford Univ., New York Univ., Inst. of Mental Hlth., Duke-NUS.*
- 9:00 VV26 **757.14** The relationship between food cognitive restraint and brain activity while anticipating and receiving food rewards. K. BURROWS; J. E. INGEBOLM*; J. GUO; K. D. HALL; A. MARTIN; W. K. SIMMONS. *Laureate Inst. for Brain Res., NIH / NIMH, NIH / NIDDK, Univ. of Tulsa.*
- 10:00 VV27 **757.15** Task relevance regulates the interaction between reward expectation and the processing of emotional word: Electrophysiological evidence. P. WEI*; D. WANG; L. JI. *Capital Normal Univ.*
- 11:00 VV28 **757.16** Seeking pleasant touch: Neural correlates of behavioral preferences for skin stroking. I. PERINI*; H. OLAUSSON; I. MORRISON. *Dept. of Clin. and Exptl. Medicine, IKE.*
- 8:00 VV29 **757.17** Acute exercise increases cognitive reappraisal in light to moderate smokers. L. MARTIN*; V. B. PAPA; P. KLUDING; C. BEFORT; H. YEH; D. CATLEY; N. NOLLEN. *Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr., Univ. of Missouri Kansas City.*
- 9:00 VV30 **757.18** Effect of emotions generated by events of life on food intake in women. R. W. DIEZ-GARCIA*; A. C. AGUIAR-MOREIRA. *Univ. of Sao Paulo.*
- 10:00 VV31 **757.19** "Money is so crude": Dissociable roles of ventral striatum and ventromedial prefrontal cortex in the construction of subjective value. A. LOPEZ*; S. BOURGEOIS-GIRONDE; S. BOURET; M. PESSIGLIONE. *Inst. Du Cerveau Et De La Moelle Épinrière, Ecole Normale Supérieure, Univ. Pierre et Marie Curie, Univ. Paris 2.*
- 11:00 VV32 **757.20** Differential brain activation induced by cocaine vs. heroin-related emotional imagery as a function of context: An fMRI study in drug addicts. S. DE PIRRO*; G. GALATI; A. BADIANI. *Univ. of Sussex, Univ. of Sussex, Dept. of Physiol. and Pharmacology, Sapienza Univ. of Rome, Dept. of Psychology, Sapienza Univ. of Rome, IRCSS Santa Lucia.*
- 8:00 VV33 **757.21** A baby's smile increases cortical eeg correlations in both biological and adoptive mothers. R. M. HIDALGO AGUIRRE*; M. PÉREZ HERNÁNDEZ; C. AMEZCUA GUTIÉRREZ; M. GUEVARA PÉREZ; M. HERNÁNDEZ-GONZÁLEZ. *Inst. De Neurociencias, Inst. de Neurociencias.*

- 9:00 VV34 **757.22** An attempt to dissect fundamental brain functions in decision-making task. D. KASE*; T. BORAUD. *Inst. Des Maladies Neurodégénératives, Univ. Bordeaux Segalen, CNRS.*
- 10:00 VV35 **757.23** Neural basis for behavioral apathy in humans. V. BONNELLE; S. MANOHAR; T. BEHRENS; M. HUSAIN*. *Oxford Univ., FMRI Centre, Oxford Univ., Univ. of Oxford.*
- 11:00 VV36 **757.24** ● Brain network functional connectivity is disrupted in childhood obesity. B. A. CHODKOWSKI; K. D. NISWENDER; R. L. COWAN*. *Vanderbilt Univ. Sch. of Med., Vanderbilt Univ. Sch. of Med., Tennessee Valley Healthcare Syst., Vanderbilt Dept. of Med.*
- 8:00 VV37 **757.25** Neural dissection of incentive and hedonic processes depicts a regulation mechanism of reinforcement driven behavior in humans. T. GONEN*; E. ELDAR; G. RAZ; T. HENDLER. *Functional Brain Center, Tel Aviv Med. Ctr., Princeton Neurosci. Institute, Princeton Univ., Functional Brain Center, Tel Aviv Sourasky Med. Ctr.*
- 9:00 VV38 **757.26** Subjective valuation of rewards discounted by cognitive and physical effort. M. A. APPS*; T. T. CHONG; L. GRIMA; K. GIEHL; M. HUSAIN. *Univ. of Oxford, Univ. of Oxford.*
- 10:00 VV39 **757.27** Neural responses during reward and avoidance learning in people with excessive internet use. H. YOON; H. M. AHN; S. KIM*. *Korea Univ.*
- 11:00 VV40 **757.28** Cooperation and strategy during social dilemmas: An EEG hyperscan analysis. N. J. A. WAN*; A. J. WILSON; B. S. ROBINSON; K. E. JORDAN. *Utah State Univ., Western Illinois Univ.*
- 8:00 VV41 **757.29** Human striatal responses to reward void of motivation, and motivation void of reward. S. TILLEM*; L. M. PEPE; D. R. WEINBERGER; C. F. ZINK. *Lieber Inst. For Brain Develop., Natl. Inst. of Mental Health, NIH.*
- 9:00 VV42 **757.30** Frontal and limbic emotional reactivity are associated with different monetary incentive delay profiles. J. E. JOSEPH*; T. KELLERMANN; X. ZHU. *MUSC.*

POSTER

758. Sex and Steroids

Theme F: Cognition and Behavior

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

- 8:00 VV43 **758.01** A shared rhythm of seasonal births among baseball players and lesbians with an opposite rhythm among gay men. G. MARZULLO*. *Per Aspera Res. Fndn.*
- 9:00 VV44 **758.02** ▲ The effect of steroid hormones on brain morphology in green anole lizards. S. A. GILBERT; P. S. CONNOLLY; B. A. GILBERT; R. E. COHEN*. *Minnesota State Univ. Mankato, Minnesota State Univ. Mankato, Minnesota State Univ. Mankato, Minnesota State University, Mankato.*
- 10:00 VV45 **758.03** Sex differences in ketamine's antidepressant effects following social-isolation stress in C57BL/6 mice. A. M. DOSSAT*; K. N. WRIGHT; C. E. STRONG; M. KABBAJ. *Florida State Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 11:00 VV46 **758.04** Contaminants found in Puerto Rican urban streams cause changes on general activity and agonistic behaviors of a native freshwater prawn species, *Macrobrachium carinus*. J. L. ORTIZ*; N. RIVERA; M. SOSA. *Univ. of Puerto Rico, Univ. of Puerto Rico Med. Sci. Campus*.
- 8:00 VV47 **758.05** Neurobehavioral effects of chronic antidepressant treatment in middle-aged rats: Sex-specific alterations in cognition and depressive-like behavior. R. HIROI*; A. M. QUIHUIS; C. N. LAVERY; S. J. GRANGER; G. WEYRICH; H. A. BIMONTE-NELSON. *Arizona State Univ., Arizona Alzheimer's Consortium*.
- 9:00 VV48 **758.06** The effect of varying 17 β -estradiol treatment frequency on cognitive performance in middle-aged ovariectomized rats. A. M. QUIHUIS*; A. V. PRAKAPENKA; S. E. MENNENGA; R. HIROI; S. V. KOEBELE; R. W. SIRIANNI; H. A. BIMONTE-NELSON. *Arizona State Univ., Arizona Alzheimer's Consortium, Arizona State Univ., Barrow Brain Tumor Res. Ctr., Arizona State Univ.*
- 10:00 VV49 **758.07** • Cognitive changes across the menopause transition in a rat model: A longitudinal evaluation of the impact of age and ovarian status on spatial memory. S. V. KOEBELE*; S. E. MENNENGA; R. HIROI; L. T. HEWITT; A. M. QUIHUIS; M. L. POISSON; L. P. MAYER; C. A. DYER; H. A. BIMONTE-NELSON. *Arizona State Univ., Arizona Alzheimer's Consortium, SenesTech Inc.*
- 11:00 VV50 **758.08** • A sensitive window for hormone therapy initiation during transitional menopause: Conjugated equine estrogens impair memory when given after, but not before, ovarian follicular depletion. S. E. MENNENGA*; J. I. ACOSTA; A. N. GARCIA; L. T. HEWITT; M. L. KINGSTON; C. W. S. TSANG; B. W. CAMP; L. MAYER; C. DYER; H. A. BIMONTE-NELSON. *Arizona State Univ., Arizona Alzheimer's Consortium, SenesTech, Inc.*
- 8:00 VV51 **758.09** The effects of the botanical estrogen isoliquiritigenin (ISL) on cognition. P. KUNDU*; S. NEESE; S. BANDARA; S. MONAIKUL; W. G. HELFERICH; S. SCHANTZ. *Univ. of Illinois Urbana-Champaign, Baldwin Wallace Univ.*
- 9:00 VV52 **758.10** Epigenetic regulation of estrogen receptor α contributes to age-related differences in transcription across the hippocampal regions. L. IANOV*; A. KUMAR; T. C. FOSTER. *McKnight Brain Institute, Univ. of Florida*.
- 10:00 VV53 **758.11** Synaptic distribution of GPR30 in the aged monkey prefrontal cortex is associated with the procognitive effects of estrogen replacement therapy. J. L. CRIMINS*; C. WANG; F. YUK; R. PURI; W. G. JANSSEN; Y. HARA; P. R. RAPP; J. H. MORRISON. *Mount Sinai Sch. of Med., Univ. of Colorado Sch. of Med., Natl. Inst. on Aging*.
- 11:00 VV54 **758.12** Effects of mating and sexually relevant odorants in the arrival of new cells in the olfactory bulb of male mice. M. A. VELAZCO-MENDOZA; W. PORTILLO*; R. G. PAREDES. *Instituto De Neurobiologia*.

POSTER

759. Novel Assays: Nanotools for Neuroscience II

Theme G: Novel Methods and Technology Development

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

- 8:00 VV55 **759.01** Two-choice behavior on different rules in head-fixed mice. K. TAO*; S. FUJISAWA. *RIKEN Brain Sci. Inst.*
- 9:00 VV56 **759.02** a novel drug-screening platform uncovers vorinostat as a potential anti-epileptic drug. K. IBHAZEHIEMBO*; C. GAVRILOVICI; S. NAKANISHI; J. M. RHO; D. M. KURRASCH. *Univ. of Calgary, Univ. of Calgary*.
- 10:00 VV57 **759.03** • Microfluidic devices to artificially connect neurons. M. MAGDESIAN*; M. LOPEZ; M. MORI; D. OLIVER; W. PAUL; Y. MIYAHARA; D. BOUDREAU; Y. DE KONINCK; P. GRÜTTER. *McGill Univ., Univ. Laval*.
- 11:00 VV58 **759.04** A method for optical measurement of footfalls in head-fixed, awake behaving mice with simultaneous electrophysiological recordings in sensorimotor cortex. J. B. SMITH*; D. SHRIVER; P. J. DREW. *Pennsylvania State Univ., Pennsylvania State Univ., Penn State Col. of Med.*
- 8:00 VV59 **759.05** • Microfluidic devices for rapid quantification of pharyngeal activity by electrophysiological measures in nematode models of human diseases and parasitic nematodes. S. R. LOCKERY*; K. J. ROBINSON; W. M. ROBERTS; J. J. VERMEIRE; J. C. WEEKS. *Univ. of Oregon, NemaMetrix, UC San Francisco*.
- 9:00 VV60 **759.06** Bpod: An open source platform for precise behavioral measurement and control. J. SANDERS*; A. KEPECS. *Cold Spring Harbor Lab.*
- 10:00 VV61 **759.07** • A new method for determining the degree of sedation in beagle dogs; validation with propofol and comparison to a novel compound. G. M. BELFORT*; R. S. HAMMOND; W. W. MUIR; Y. UEYAMA; S. J. KANES; G. M. BOTELLA; F. G. SALITURO; A. J. ROBICHAUD; J. J. DOHERTY. *Sage Therapeut., QTest Labs*.
- 11:00 VV62 **759.08** • Dual tracer receptor occupancy for 5-HT_{1A} and SERT using non-radiolabelled tracers in rats. J. THENTU; G. BHYRAPUNENI*; D. AJJALA; R. ALETI; S. SRIKAKOLAPU; R. NIROGI. *Suven Life Sci.*
- 8:00 VV63 **759.09** A portable low cost multifunction electrophysiology system developed on open source hardware. X. LI*; K. BORGES; G. SHEPHERD. *Northwestern Univ.*
- 9:00 VV64 **759.10** An open source operant conditioning chamber. K. DEVARAKONDA*; A. V. KRAVITZ. *NIDDK*.
- 10:00 VV65 **759.11** Estimating the hemodynamic response to neural activation in resting-state fMRI. P. BOORD*; T. J. GRABOWSKI, Jr. *Univ. of Washington*.
- 11:00 VV66 **759.12** Freely vibrating nanostructured scaffolds as a novel assay to investigate mechanical properties of retinas. S. RAHMAN*; A. REICHENBACH; S. MAYR; M. ZINK. *Paul Flechsig Institute for Brain Res., Leibniz Inst. for Surface Modification, Fac. of Physics and Earth Sciences, Inst. of Exptl. Physics 1, Univ. of Leipzig, Univ. of Leipzig*.

- 8:00 VV67 **759.13** Use of electric field sensors for continuous non-contact recordings of motor behaviors in rodents. M. L. MCKINNON*; D. NOBLE; C. J. MACDOWELL; T. I. NEBLETT; M. HALDER; W. N. GOOLSBY; S. M. GARRAWAY; S. HOCHMAN. *Emory Univ.*
- 9:00 VV68 **759.14** SERCaMP: A reporter to monitor endoplasmic reticulum calcium homeostasis in neurons. K. A. TRYCHTA*; E. M. SIMONS WIRES; C. T. RICHIE; B. K. HARVEY; M. J. HENDERSON. *Natl. Inst. On Drug Abuse.*
- 10:00 VV69 **759.15** ● Human neural microtissues derived from induced pluripotent stem cells for toxicity testing. S. DELAURA; D. A. FLURI; R. MARCHAN; W. MORITZ; E. M. JONES*; J. G. HENGSTLER; J. M. KELM. *Cell. Dynamics Intl., InSphero AG, Leibniz Res. Ctr. for Working Envrn. and Human Factors, Gist Consulting.*
- 11:00 VV70 **759.16** Cisterna magna ported (CMP) conscious rhesus monkey model: An innovative approach to neuroscience - evaluation of CSF biomarkers for Alzheimer's disease. M. S. MICHENER*; D. GILBERTO; B. E. SMITH; C. JOHNSON; G. WU; J. KALININA; A. MCCAMPBELL; L. HANDT; M. SAVAGE; S. MOTZEL. *Merck & Co, Merck & Co, Merck & Co., Biogen Idec Inc, Merck & Co.*
- 9:00 VV76 **760.06** Machine intelligence and sensor fusion. H. C. YUAN*; M. V. CHAO. *Independent Lab., Independent Lab.*
- 10:00 VV77 **760.07** A dynamic functional cartography of cognitive systems. M. G. MATTAR*; M. W. COLE; S. L. THOMPSON-SCHILL; D. S. BASSETT. *Univ. of Pennsylvania, Washington Univ. in St. Louis, Univ. of Pennsylvania.*
- 11:00 VV78 **760.08** Identification of a general relationship between brain network topology and directed connectivity. U. LEE*; J. MOON; S. BLAIN-MORAES; G. A. MASHOUR. *Univ. of Michigan Med. Sch., Ctr. for Consciousness Sci., Neurosci. Grad. Program.*

POSTER

760. Network Models and Cognitive Function

Theme G: Novel Methods and Technology Development

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

- 8:00 VV71 **760.01** ▲ Exploring the role of hub structures in the changing properties of functional networks. R. HIMMELWRIGHT; E. R. REYNOLDS*. *Lafayette Col.*
- 9:00 VV72 **760.02** Global disconnectivity and loss of symmetry in mice knockout for the neurodevelopmental gene Ahi1. T. LIFSCHYTZ*; A. LOTAN; O. LORY; G. GOELMAN; B. LERER. *Biol. Psychiatry Laboratory, Hadassah Med., MRI Lab, Med. Biophysics, Hadassah Med.*
- 10:00 VV73 **760.03** Differential correlation analysis as a new technique for probing interaction strength between brain areas when performing emotionally motivated willed motor activity. C. KARMONIK*; A. VERMA; S. H. FUNG; R. G. GROSSMAN. *Houston Methodist Res. Inst., Houston Methodist Hosp., Houston Methodist Hosp., Houston Methodist Hosp.*
- 11:00 VV74 **760.04** Meta-state analysis reveals reduced resting fMRI connectivity dynamism in schizophrenia, with dynamic fluidity and range further suppressed by many individual symptoms. R. MILLER; M. YAESOUBI; J. TURNER; D. MATHALON; A. PREDA; J. VAIDYA; M. DIAZ; J. M. HOUCK*; V. CALHOUN. *The Mind Res. Network, Univ. of New Mexico, Georgia State Univ., Univ. of California San Francisco Col. of Med., Univ. of California Irvine Sch. of Med., Univ. of Iowa Col. of Med., Duke Univ. Sch. of Med., Univ. of New Mexico.*
- 8:00 VV75 **760.05** Network theory analysis reveals hierarchical cortical organization as a platform for consciousness to emerge. N. LAHAV*; B. KSHERIM; E. BEN SIMON; R. COHEN; S. HAVLIN. *Bar Ilan Univ., Bar Ilan university, Tel Aviv university, functional brain center.*

Wed. AM

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

Wednesday PM

SPECIAL LECTURE *Walter E. Washington Convention Center*

761. ● **Affective Neuroscience of Reward: Limbic Modules for Liking and Wanting** — CME

Wed. 1:00 PM - 2:10 PM — Hall D

Speaker: K. C. BERRIDGE, *Univ. of Michigan, Ann Arbor*
Reward involves several different psychological components. "Wanting" a reward is generated by robust mesolimbic circuitry, whereas "liking" the same reward is generated by hedonic-hotspot circuitry that is neuroanatomically and neurochemically more restricted. This wanting-liking difference has implications for addiction disorders. Yet surprisingly, forms of positive wanting and negative fear share some of the same brain mechanisms. New insight on the generation of these intense "liking," "wanting," and other emotion states are emerging in affective neuroscience.

SYMPOSIUM *Walter E. Washington Convention Center*

762. **Gut Microbes and the Brain: Paradigm Shift in Neuroscience** — CME

Wed. 1:30 PM - 4:00 PM — 146AB

Chair: ● E. A. MAYER

Co-Chair: R. KNIGHT

This symposium will review (1) the possible role of environmentally induced (e.g., diet, antibiotics, hygiene) gut microbial changes in the increase in central nervous system (CNS) disorders; (2) the preclinical evidence demonstrating a role for the gut microbiome in CNS development, including the development of the stress system, pain modulation, and emotional behavior; and (3) preliminary evidence from human subjects linking gut microbial communities and their metabolic products to brain signatures and CNS disorders.

1:30 **762.01** Introduction.

1:35 **762.02** ● The microbiota-gut-brain axis regulates stress, neurodevelopment, and behavior: Evidence from rodent studies. J. CRYAN. *Univ. Col. Cork*.

2:10 **762.03** The gut microbiome and autism spectrum disorder. S. MAZMANIAN. *Caltech*.

2:45 **762.04** Crowdsourcing microbe-brain connections through American Gut. R. KNIGHT. *Univ. of Colorado at Boulder*.

3:20 **762.05** ● Gut microbiome brain signaling in healthy human subjects. K. TILLISCH. *UCLA*.

3:55 **762.06** Closing Remarks.

SYMPOSIUM *Walter E. Washington Convention Center*

763. **Neuroscience of Implicit Cognition and Learning: Current Theories and Methods** — CME

Wed. 1:30 PM - 4:00 PM — Ballroom A

Chair: R. IVRY

Co-Chair: D. NEMETH

The symposium will provide a state-of-the-art overview of theoretical and empirical developments on the neurocognition of implicit cognition and nonconscious learning processes from animal to human research. This symposium will cover a range of experimental and computational methods to

examine implicit processes in a wide range of task domains. A particular focus will be on methods and analytic techniques that dissociate implicit and explicit processes and how these different systems might interact.

1:30 **763.01** Introduction.

1:35 **763.02** The reach of the unconscious. A. CLEEREMANS. *Univ. Libre de Bruxelles*.

2:10 **763.03** Implicit memory consolidation. E. ROBERTSON. *Harvard Med. Sch.*

2:45 **763.04** Cerebellum-hippocampus interaction during spatial or sequence-based learning. L. RONDIREIG. *CNRS-UPMC-INERM*.

3:20 **763.05** Cooperative and competitive brain networks underlying sensorimotor and cognitive skills. D. NEMETH. *Eotvos Lorand Univ.*

3:55 **763.06** Closing Remarks.

SYMPOSIUM *Walter E. Washington Convention Center*

764. **The Latest on the Ubiquitin Pathway and Central Nervous System Disease** — CME

Wed. 1:30 PM - 4:00 PM — Ballroom B

Chair: T. R. BUTT

This symposium brings together leaders in ubiquitin pathway research applied to translational medicine and drug discovery in neuroscience. The ubiquitin pathway, which governs the half-life, activity, and cell localization of most proteins, has emerged as an important means of controlling both normal brain function and dysregulated function manifested in disorders such as Alzheimer's disease, Parkinson's disease, polyQ disease, synaptic impairment, and neuroinflammation. Researchers who have defined these roles for ubiquitin will evaluate them in terms of their therapeutic potential in neuronal disease.

1:30 **764.01** Introduction.

1:35 **764.02** Crosstalk between the ubiquitin-proteasome pathway and neuroinflammation: A path to neurodegeneration. M. FIGUEIREDO-PEREIRA. *Hunter Col. and Grad. Center, CUNY*.

2:10 **764.03** DUBs and ubiquitin ligases in neurodegenerative diseases. H. L. PAULSON. *Univ. of Michigan Hlth. Syst.*

2:45 **764.04** Pharmacological modulation of the proteasome to facilitate a reduction of aggregation-prone proteins related to multiple neurological disorders. P. REINHART. *Proteostasis Therapeut. Inc.*

3:20 **764.05** Catalytic and non-catalytic roles of USP14 in synaptic transmission, learning, and memory. S. M. WILSON. *Univ. of Alabama Birmingham*.

3:55 **764.06** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

765. Human Subcortical Connectivity with High-Field MRI — CME

Wed. 1:30 PM - 4:00 PM — Ballroom C

Chair: S. J. TORRISI

Co-Chair: M. ERNST

Standard neuroimaging has encountered roadblocks from limited spatial resolution. Until recently, functional and structural descriptions of the human connectivity of small subcortical regions have generally been weak. However, advances in fMRI and DTI at high magnetic fields (>3T) permit us to go beyond these limitations. This minisymposium connects researchers at the forefront of investigating the *in vivo* functional and structural connectivity of the human diencephalon and mesencephalon.

1:30 **765.01** Introduction.

1:35 **765.02** Exploration of the connectivity of human hypothalamus using DTI fiber tracking: Methodology, results, and prospects. J. LEMAIRE. *Auvergne Univ. & CHU of Clermont-Ferrand, France.*

1:55 **765.03** Mapping structural and functional BNST circuits in humans. J. U. BLACKFORD. *Vanderbilt Univ.*

2:15 **765.04** Resting functional connectivity of the extended amygdala. S. TORRISI. *Natl. Inst. of Hlth.*

2:35 **765.05** Investigating amygdala connectivity at high and ultra-high fields. R. SLADKY. *Med. Univ. of Vienna.*

2:55 **765.06** Identification of discrete functional subregions of the human periaqueductal gray with 7 tesla magnetic resonance imaging. A. B. SATPUTE. *Northeastern Univ.*

3:15 **765.07** *In vivo* mapping of subcortical structures circuitry using 7T MRI. C. LENGLET. *Univ. of Minnesota Med. Sch.*

3:35 **765.08** Closing Remarks.

MINISYMPOSIUM *Walter E. Washington Convention Center*

766. Pro-Nociceptive Interactions Between Spinal and Supraspinal Centers in Chronic Pain: Mechanisms and Avenues for Novel Drug Targets — CME

Wed. 1:30 PM - 4:00 PM — 151AB

Chair: S. SIKANDAR

Recent preclinical and clinical data will support discussion of the role of spinal and supraspinal neuronal and non-neuronal processes that produce and maintain persistent pain (i.e., following neuropathy or inflammation of somatic and visceral structures). Mechanisms of enhanced central excitability underlying sensory phenotypes of chronic pain patients will be explored. Current and novel pharmacological targets within relevant neurotransmitter systems and nociceptive pathways will be highlighted.

1:30 **766.01** Introduction.

1:35 **766.02** Brainstem modulation of chronic pain – time-dependent interactions and pharmacological targets. S. SIKANDAR. *Univ. Col. London.*

1:55 **766.03** Exploring the neural correlates of tonic pain and relief in humans using quantitative perfusion imaging. A. SEGERDAHL. *Ctr. for Functional Magnetic Resonance Imaging of the Brain.*

2:15 **766.04** Central plasticity and priming in a rat model of migraine. G. DUSSOR. *Univ. of Texas at Dallas.*

2:35 **766.05** Inhibitory spinal circuits in neonatal and adult nervous systems. S. KOCH. *Salk Institute.*

2:55 **766.06** Epigenetic targets in pain. S. MCMAHON. *Kings Col. London.*

3:15 **766.07** ● Improving the outcome of patients with musculoskeletal and postsurgical pains: Understanding pain mechanisms and controlling co-morbidities. T. GRAVEN-NIELSEN. *Aalborg Univ.*

3:35 **766.08** Closing Remarks.

NANOSYMPOSIUM

767. Synaptic Plasticity: Molecular and Circuit Mechanisms

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

Wed. 1:00 PM – *Walter E. Washington Convention Center, 147A*

1:00 **767.01** Neuronal activity induces transcription of two sub-classes of immediate early genes. P. C. ROMEO; M. K. WURZELMANN; E. R. BAILEY; R. N. SAHA; S. M. DUDEK*. *Natl. Inst. of Envrn. Hlth. Sciences, NIH, Univ. of California, Merced.*

1:15 **767.02** Regulation of spine maturation and spine pruning via dendritically synthesized BDNF and NMDAR activity. L. L. OREFICE*; E. WATERHOUSE; B. XU. *Georgetown Univ., Georgetown Univ., The Scripps Res. Inst.*

1:30 **767.03** Role of the Lin28/let-7 axis in gene expression regulation by BDNF. A. M. AMEN; C. R. RUIZ; J. SHI; M. K. MEFFERT*. *Johns Hopkins Sch. Med., Johns Hopkins Sch. Med.*

1:45 **767.04** Transcription networks provide a window into the neural circuitry of addiction. A. CITRI*. *The Hebrew Univ.*

2:00 **767.05** WT1-mediated suppression of synaptic plasticity preserves long-term memory encoding in hippocampus. C. MARIOTTINI*; L. MUNARI; J. SECO; E. GUNZEL; S. STERN; V. GAO; J. HANSEN; G. HODES; S. RUSSO; V. HUFF; C. ALBERINI; R. BLITZER; R. IYENGAR. *Mount Sinai Sch. of Med., New York Univ., Mount Sinai Sch. of Med., MD Anderson Cancer Ctr.*

2:15 **767.06** RNS60, saline containing charge stabilized oxygen based nanostructures, enhances neuronal plasticity via activation of phosphatidylinositol-3 kinase pathway. A. ROY; K. K. MODI; S. KHASNAVIS; S. GHOSH; R. WATSON; K. PAHAN*. *Rush Univ. Med. Ctr., Revaesio Corp.*

2:30 **767.07** Spatial working memory deficits accompany reductions in hippocampal-prefrontal synchrony following inactivation of the ventral midline thalamic reunions and rhomboid nuclei. H. L. HALLOCK*; A. L. GRIFFIN. *Univ. of Delaware.*

2:45 **767.08** TrkA as a pharmacological target to modulate memory formation. S. E. JOSEPHY HERNÁNDEZ*; T. ABOULKASSIM; M. H. MAIRA ARCE; I. PIRVULESCU; H. U. SARAGOVI. *McGill Univ., Lady Davis Inst. - Jewish Gen. Hosp., McGill Univ.*

3:00 **767.09** Changes in key memory-associated hippocampal oscillations in human apoE4 knock-in mice. A. GILLESPIE*; L. TONG; M. KARLSSON; K. KAY; Y. LIN; S. YOON; L. FRANK; Y. HUANG. *Gladstone Inst. of Neurolog. Disease, UCSF, Univ. of California, San Francisco.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:15 **767.10** • Nicotine improves probabilistic learning via enhancing reward-associative learning, an effect attenuated in alpha 7 nAChR null mutants: A mechanism for alpha 7 nAChR agonist effects on negative symptoms in schizophrenia? J. W. YOUNG*; K. HIGA; A. GRIM; M. A. GEYER. *UCSD, VA San Diego Healthcare Syst.*
- 3:30 **767.11** Anesthetic sevoflurane induces cognitive impairment in young mice through Tau phosphorylation. J. ZHANG; Y. DONG; G. CROSBY; D. CULLEY; Y. ZHANG; Z. XIE*. *Massachusetts Gen. Hosp. and Harvard Med. Sch., Brigham & Women's Hosp.*
- 3:45 **767.12** Role of NRBF2 in modulating Class III-PI3K/autophagy activity and memory in mice. J. LU*; Z. YUE. *Icahn Sch. of Med. At Mount Sinai.*
- 4:00 **767.13** Circadian gene disruptions in midbrain regions alter excitatory synaptic plasticity and mood-related behavior in rodents. P. K. PAREKH*; A. OZBURN; M. SIDOR; S. SPENCER; R. LOGAN; J. KERN; Z. LIU; Y. HUANG; C. MCCLUNG. *Univ. of Pittsburgh, Univ. of Pittsburgh, Med. Univ. of South Carolina.*

NANOSYMPOSIUM

768. APP Functions and Processing Pathways

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, 150B

- 1:00 **768.01** Activation of the nuclear receptor PPAR α exacerbates ADAM10-mediated proteolysis of APP. G. T. CORBETT*. *Rush Univ. Med. Ctr.*
- 1:15 **768.02** Arf6 controls the transport of APP to lysosomes by macropinocytosis, where it is cleaved into beta amyloid. S. H. PASTERNAK*; C. SEAH; W. TANG; J. H. K. TAM; S. P. CREGAN; S. P. MEAKIN. *Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Western Ontario, Univ. of Western Ontario.*
- 1:30 **768.03** Axonal transport is altered in aging mice with and without plaques induced by overexpression of human APP. E. L. BEARER; A. GONZALES; R. CHAVES; R. E. JACOBS*. *The Univ. of New Mexico, Caltech, Caltech.*
- 1:45 **768.04** Amyloid Precursor Protein dimerization and synaptogenic function depend on copper binding to the growth factor like domain. S. KINS*; F. BAUMKÖTTER; N. SCHMIDT; S. SCHILLING; R. WEBER; C. VARGAS; S. KELLER; S. EGGERT; K. WILD. *Univ. of Kaiserslautern, Heidelberg Univ. Biochem. Ctr. (BZH), Univ. of Heidelberg.*
- 2:00 **768.05** Amyloid precursor protein (APP) activates Cullin-5 (Cul5) ubiquitin ligase. Y. CHEN*; H. C. LIU; J. CHEN. *Univ. Arkansas Med. Sci., Univ. of Arkansas for Med. Sci.*
- 2:15 **768.06** Local application of β -amyloid(1-42) elicits hippocampal sub-region specific glutamate release in C57BL/6 mice. K. N. HASCUP*; E. R. HASCUP. *Southern Illinois Univ. Sch. of Med.*
- 2:30 **768.07** Amyloid Precursor Proteins as regulators of G protein-dependent neuronal guidance. P. F. COPENHAVER*; J. A. ZWEIG; T. L. SWANSON; J. M. RAMAKER. *Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*

- 2:45 **768.08** Neuroprotection by secreted APP requires expression of membrane-tethered holo-APP. D. KOGEL*; N. ROHNER; A. KUNDU; S. KINS; U. MULLER; C. BEHL. *Frankfurt Univ. Hosp., Div. of Human Biol. and Human Genetics, Univ. of Kaiserslautern, Inst. of Pharm. and Mol. Biotechnology, Univ. of Heidelberg, Inst. for Pathobiochemistry, Mainz Univ.*
- 3:00 **768.09** A unique conformation of amyloid is associated with cerebrovascular amyloid deposits and smooth muscle cell degeneration. R. ALBAY*, III; J. CARRANZA; S. MILTON; C. G. GLABE. *Univ. of California Irvine.*
- 3:15 **768.10** Convergent pathogenic mechanisms of Alzheimer's disease and ALS: Peripherin-dependent transport of sAPP, likely with neurofilament-associated endoplasmic reticulum tubules. V. MURESAN*; Z. LADESCU MURESAN. *New Jersey Med. School, Rutgers, The State Univ. of New Jersey.*

NANOSYMPOSIUM

769. Huntington's disease Mechanisms and Therapeutic Strategies

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, 147B

- 1:00 **769.01** Glucocorticoid signalling actions are disrupted in Huntington's disease. C. T. UDEH*; S. BROOKS; N. JANGHRA; S. DUNNETT; S. L. LIGHTMAN. *Univ. of Bristol|910005591|0, Cardiff Univ., Univ. of Bristol|910005591|0.*
- 1:15 **769.02** Huntingtin regulates nutrient-mtorc1 signaling that exacerbates Huntington's disease symptoms. S. SUBRAMANIAM*; M. BIAGIOLI; M. MACDONALD; S. SWARNKAR; N. SHAHANI; W. PRYOR. *Scripps Res. Inst., Massachusetts Gen. Hosp.*
- 1:30 **769.03** Loss of inositol polyphosphate multikinase contributes to neurodegeneration in Huntington's disease. I. AHMED*; J. I. SBODIO; M. M. HARRAZ; R. TYAGI; L. K. ALBACARYS; R. XU; J. GRIMA; S. KIM; B. D. PAUL; S. H. SNYDER. *Johns Hopkins Univ. Sch. of Med., Korea Advanced Inst. of Sci. and Technol.*
- 1:45 **769.04** The microtubule associated protein Tau and its impact on cognition in Huntington's disease. R. VUONO*; S. E. WINDER-RHODES; R. A. BARKER. *Univ. of Cambridge.*
- 2:00 **769.05** A link between polyglutamine protein load and cellular vulnerability in Huntington's disease. L. HACHIGIAN*; A. HEILBUT; R. FENSTER; R. KULICKE; E. KOLACZYK; J. MESIROV; M. HEIMAN. *MIT, Picower Inst. for Learning and Memory, Broad Inst., Boston Univ., Boston Univ., MIT.*
- 2:15 **769.06** • Mutant Huntingtin resistant to cleavage at amino acid 586 preferentially binds p62 and is cleared more efficiently by autophagy. D. E. EHRNHOFER*; S. LADHA; X. QIU; Y. T. N. NGUYEN; M. R. HAYDEN. *UBC.*
- 2:30 **769.07** Proteomic analysis of HD iPSCs differentiated to striatal neurons. S. AKIMOV*; T. RATOVITSKI; C. TALBOT; R. N. COLE; V. B. MATTIS; C. SVENDSEN; L. M. THOMPSON; C. A. ROSS. *Johns Hopkins University, Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Cedars-Sinai Regenerative Med. Inst., Univ. of California-Irvine.*

- 2:45 **769.08** Autophagy related PI-3 Kinase III activity in Huntington's disease model and p62 phosphorylation in the degradation of PolyQ Htt mutant. J. LIM*; M. L. LACHENMAYER; Z. YUE. *Mount Sinai Sch. of Med., Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*
- 3:00 **769.09** Bexarotene activation of PPAR δ function improves pre-clinical trial outcomes in a mouse model of Huntington's disease. A. S. DICKEY*; N. LOMAS; K. R. SAMPAT; D. N. SANCHEZ; E. MASLIAH; A. R. LA SPADA. *Sanford Consortium - UCSD, Sanford Consortium - UCSD.*
- 3:15 **769.10** PARP-1 inhibition is neuroprotective in the R6/2 mouse model of Huntington's disease. F. R. FUSCO*; A. CARDINALE; A. SERNANI; C. GIAMPÀ; G. BERNARDI. *IRCCS Santa Lucia Fndn. Hosp., Catholic Univ., Univ. of Rome Tor Vergata.*
- 3:30 **769.11** ● *In vivo* evaluation of candidate allele-specific mutant Huntington gene silencing antisense oligonucleotide drugs. A. L. SOUTHWELL*; N. SKOTTE; H. KORDASIEWICZ; M. ØSTERGAARD; A. T. WATT; J. B. CARROLL; C. N. DOTY; E. B. VILLANUEVA; E. PETHOUKHOV; K. VAID; Y. XIE; S. M. FREIER; E. E. SWAYZE; P. P. SETH; C. F. BENNETT; M. R. HAYDEN. *UBC-CMMT, ISIS Pharmaceuticals, Western Washington Univ.*
- 3:45 **769.12** ● Engineered zinc finger transcriptional repressors selectively inhibit mutant huntingtin expression and reverse disease phenotypes in Huntington's disease patient-derived neurons and in rodent models. H. S. ZHANG*; B. ZEITLER; S. FROELICH; Q. YU; J. PEARL; D. E. PASCHON; J. C. MILLER; A. E. KUDWA; Y. SEDAGHAT; D. LI; K. MARLEN; D. GUSCHIN; L. ZHANG; M. MENDEL; E. J. REBAR; F. D. URNOV; S. KWAK; V. MACK; I. MUNOZ-SANJUAN; P. D. GREGORY. *Sangamo BioSciences Inc., Psychogenics, Evotec AG, CHDI Fndn.*
- 4:00 **769.13** ▲ Treating circadian dysfunction in a mouse model of Huntington's disease. R. E. FLORES; D. H. LOH; D. TRUONG; A. M. SCHROEDER; C. S. COLWELL*. *Univ. of California - Los Angeles, UCLA.*

NANOSYMPOSIUM

770. Repeat Diseases From SBMA to Motor Neuron Disease

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, 146C

- 1:00 **770.01** Preventing the n/c interaction of the androgen receptor delays disease in a mouse model of SBMA. L. J. COOPER*; D. CURTIS; D. MERRY. *Thomas Jefferson Univ.*
- 1:15 **770.02** Transplantation of cerebellar neural stem cells improves motor coordination and neuropathology in a transgenic mouse model of Machado-Joseph disease. L. MENDONÇA; C. NOBREGA; H. HIRAI; B. KASPAR; L. PEREIRA DE ALMEIDA*. *CNC - Ctr. For Neurosci. | Univ. of Coimbra, Gunma Univ. Grad. Sch. of Med., The Res. Inst. at Nationwide Children's Hospital, Ohio State Univ., Univ. of Coimbra | Fac. of Pharm.*
- 1:30 **770.03** Drug repositioning for Friedreich's ataxia identifies 'unsilencers' of frataxin, that work in cell and animal models. G. CORTOPASSI*; M. JASOLIYA; S. PERLMAN; S. SAHDEO. *UC DAVIS, UCLA.*

- 1:45 **770.04** MOE antisense oligonucleotides for the treatment of spinocerebellar ataxia type 2 (SCA2). D. R. SCOLE*; M. D. SCHNEIDER; B. HENRIE; G. HUNG; C. F. BENNETT; S. M. PULST. *Univ. of Utah, Isis Pharmaceuticals, Inc.*
- 2:00 **770.05** RAN dipeptides linked to C9ORF72-ALS/FTD form toxic nuclear aggregates and cause *in vitro* and *in vivo* neuronal death. X. WEN*; W. TAN; K. KRISHNAMURTHY; J. MONAGHAN; U. B. PANDEY; P. PASINELLI; D. TROTTI. *Farber Inst. For Neurosciences, Thomas Jefferson Univ., Children's Hosp. of Pittsburgh, Univ. of Pittsburgh Med. Ctr.*
- 2:15 **770.06** Testing the role of histone deacetylase HDAC3 in Purkinje cell function in the context of Spinocerebellar ataxia type 1 using a genetic approach. P. OPAL*; Y. HU; A. VENKATRAMAN; A. DIDONNA; M. CVETANOVIC; A. KRBANJEVIC; P. BILESIMO. *Northwestern Univ. Med. Sch., Northwestern Univ.*
- 2:30 **770.07** Reduced inositol 1, 4, 5-triphosphate receptor type 1 and carbonic anhydrase 8 gene expression is a pathway for cerebellar degeneration. K. ISHIKAWA*. *Tokyo Med. and Dent. Univ.*
- 2:45 **770.08** Adeno-associated virus mediated C9orf72 expanded GGGGCC repeat expression causes both behavioral and motor impairments in mouse model of FTD/ALS. J. CHEW*; H. SASAGURI; K. JANSEN-WEST; W. LEE; A. KURTI; J. FRYER; L. PETRUCCELLI. *Mayo Clin., Mayo Clin.*

NANOSYMPOSIUM

771. Stroke Recovery

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, 152B

- 1:00 **771.01** ● Blocking gap junctions halts the spread of cortical spreading depression; a computational study. M. A. CHARY*; S. MAYER. *Mount Sinai Sch. of Med.*
- 1:15 **771.02** ▲ Prevention of pathophysiology synaptic hippocampal by stroke: cdk5 a therapeutic target. J. A. GUTIERREZ VARGAS*; G. CARDONA-GÓMEZ. *Univ. of Antioquia/ Group of Neurosci.*
- 1:30 **771.03** Sensorimotor and social behavioral benefits of intranasally delivered bone marrow mesenchymal stem cells after neonatal stroke in rats. Z. WEI*; X. GU; J. LEE; S. YU; L. WEI. *Emory Univ., Emory Univ.*
- 1:45 **771.04** Transplantation of human iPS cell-derived neural progenitor cells improves regeneration and functional recovery after ischemic stroke in neonatal rats. D. CHEN; Z. WEI; J. LEE; X. GU; S. YU; L. WEI*. *Emory Univ., Emory Univ.*
- 2:00 **771.05** Biopolymer hydrogels promote neural precursor cell survival as a transplanted matrix in stroke. P. MOSHAYEDI*; A. R. BERG; J. P. LAM; L. NIH; W. LOWRY; T. SEGURA; S. T. CARMICHAEL. *Univ. of California Los Angeles, Univ. of California Los Angeles, Univ. of California Los Angeles.*
- 2:15 **771.06** The effect of kappa opioid receptor activation following cerebral ischemia. S. HOANG; E. WANG*; M. CHENG; G. STEINBERG. *Stanford Univ., Stanford Univ.*
- 2:30 **771.07** Endogenous neural stem cell stimulation with locally delivered cyclosporine. A. TULADHAR*; C. M. MORSHEAD; M. S. SHOICHET. *Univ. of Toronto, Univ. of Toronto, Univ. of Toronto.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:45 **771.08** Increase of finger flexion pressure with increased shoulder abduction loading during hand open in individuals with severe stroke. Y. LAN*; J. YAO; J. DEWALD. *Northwestern Univ.*
- 3:00 **771.09** Optogenetic stimulation of cerebellar dentate nucleus promotes persistent recovery after stroke. M. Y. CHENG*; A. M. SHAH; E. H. WANG; A. R. BAUTISTA; G. SUN; G. K. STEINBERG. *Stanford Univ.*
- 3:15 **771.10** ● High-cost training to recondition movement variability. A. K. SHAH*; J. L. PATTON; I. SHARP; E. LAZZARO. *Univ. of Illinois @ Chicago, Univ. of Illinois at Chicago, Rehabil. Inst. of Chicago.*
- 3:30 **771.11** Effects of mesenchymal stem cell treatment on the expression of matrix metalloproteinase and angiogenesis in ischemic stroke recovery. H. NAM*; I. KWON; B. LEE; O. LEE; J. HEO. *Yonsei Univ. Col. of Med., Yonsei Univ. Col. of Med.*
- 3:45 **771.12** Pairing forced aerobic exercise with task practice to augment the recovery of motor function following stroke: A randomized clinical trial. S. LINDER*; A. ROSENFELDT; A. PENKO; M. RASANOW; C. CLARK; J. L. ALBERTS. *Cleveland Clin., Cleveland Clin.*
- 4:00 **771.13** Is optimized tissue plasminogen activator (optPA) the future of intracerebral haemorrhage treatment? J. PARCQ*; R. GOULAY; T. GABEREL; D. VIVIEN. *GIP Cyseron - INSERM.*
- 2:15 **772.06** Functionally defined white matter reveals segregated pathways in human ventral temporal cortex associated with category-specific processing. J. GOMEZ*; F. PESTILLI; N. WITTHOFT; G. GOLARAI; A. LIBERMAN; S. POLTORATSKI; J. YOON; K. GRILL-SPECTOR. *Stanford Univ., Stanford Univ., Stanford Univ., Univ. of California, Vanderbilt Univ., New York Univ.*
- 2:30 **772.07** Organization of human area V5/MT+ and sensitivity to motion coherence after lesions of the primary visual cortex. A. PAPANIKOLAOU*; G. A. KELIRIS; S. LEE; T. D. PAPAGEORGIOU; U. SCHIEFER; N. K. LOGOTHETIS; S. M. SMIRNAKIS. *Max-Planck Inst. For Biol. Cybernetics, Baylor Col. of Med., Ctr. for Ophthalmology, Univ. of Tuebingen.*
- 2:45 **772.08** Vascular supply of the cerebral cortex is specialized for cell layers but not columns. J. C. HORTON*; J. R. ECONOMIDES; D. L. ADAMS. *Univ. California, UCSF.*
- 3:00 **772.09** Estimating cortical reorganization and filling-in using fMRI population receptive field (pRF) mapping. I. FINE*; J. M. THOMAS; P. BINDA; E. B. RUNESON; G. M. BOYNTON. *Univ. of Washington, Univ. of Pisa, Univ. of Washington.*
- 3:15 **772.10** An unbiased perspective of human visual cortex reveals new into insights orientation decoding. T. A. CARLSON*. *Macquarie Univ.*

NANOSYMPOSIUM

772. Functional Organization of the Human Visual Cortex

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, 144A

- 1:00 **772.01** The cortical representation of binocular stimuli across human visual areas. M. BARENDREGT*; B. ROKERS; S. O. DUMOULIN. *Utrecht Univ., Univ. of Wisconsin-Madison.*
- 1:15 **772.02** Smaller population receptive fields in extra striate and face selective regions of developmental prosopagnosics. N. WITTHOFT*; S. POLTORATSKI; M. NGUYEN; G. GOLARAI; A. LIBERMAN; K. F. LAROCQUE; M. E. SMITH; K. GRILL-SPECTOR. *Stanford Univ., Vanderbilt, New York Univ., Univ. of California, Berkeley, UCSD.*
- 1:30 **772.03** Functional mri and electrocorticography correspondence in human extra-striate cortex (hmt+). A. GAGLIANESE; M. VANSTEENSEL; B. HARVEY; S. O. DUMOULIN; N. F. RAMSEY; N. PETRIDOU*. *UMC Utrecht, Utrecht Univ.*
- 1:45 **772.04** Laminar profiles of population receptive field (pRF) size from primary visual cortex. A. FRACASSO*; N. PETRIDOU; S. DUMOULIN. *Utrecht Univ., Univ. Med. Ctr. (UMC).*
- 2:00 **772.05** Altered white matter integrity in visual pathways as a result of amblyopia. B. ALLEN*; D. SPIEGEL; B. THOMPSON; F. PESTILLI; B. ROKERS. *Univ. of Wisconsin - Madison, Univ. of Auckland, Stanford Univ.*

NANOSYMPOSIUM

773. Neuroscience and Psychology of Motherhood

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

Wed. 1:00 PM – Walter E. Washington Convention Center, 140A

- 1:00 **773.01** Mental and physical (MAP) training: A neurogenesis-inspired intervention enhances health in homeless traumatized young mothers in the community. T. J. SHORS*; R. OLSON; M. CHANG; E. SELBY; M. BATES; B. ALDERMAN. *Rutgers Univ., Rutgers Univ., Rutgers Univ.*
- 1:15 **773.02** Sexual Conspecific Aggressive Response (SCAR): Sexual aggression directed at females in puberty disrupts maternal care for offspring. K. E. TOBON*; D. DURHAM; M. CHANG; A. MATTHEW; G. DIFEQ; T. SHORS. *Rutgers Univ., Rutgers-Robert Wood Johnson Med. Sch., Rutgers Univ.*
- 1:30 **773.03** Postpartum neuroplasticity in the midbrain serotonergic dorsal raphe: Potential mechanism for adaptations in maternal behavior and physiology. M. A. HOLSCHBACH*; J. S. LONSTEIN. *Michigan State Univ.*
- 1:45 **773.04** Postpartum depressive-like behavior is accompanied by impaired maternal motivation and altered structural plasticity within the reward system. A. HAIM*; C. ALBIN-BROOKS; M. L. SHERER; E. MILLS; B. LEUNER. *The Ohio State Univ., The Ohio State Univ., The Ohio State Univ.*
- 2:00 **773.05** Reproductive experience alters the effects of Premarin and surgical menopause on spatial memory and hippocampal plasticity in middle-aged female rats. M. M. ROES*; C. VAN DEN BRINK; S. LIEBLICH; C. CHOW; L. GALEA. *Univ. of British Columbia.*
- 2:15 **773.06** Mother-to-infant transmission of trauma through social fear learning: Behavioral, neural and endocrine mechanisms. J. DEBIEC*; R. M. SULLIVAN. *Univ. of Michigan, Nathan Kline Inst.*

- 2:30 **773.07** Maternal cocaine reduces frequency of dopamine release events in the nucleus accumbens of rat mothers. D. L. ROBINSON*; D. L. ZITZMAN; E. H. ANDERSEN; T. A. SHNITKO; J. M. JOHNS. *Univ. of North Carolina, Univ. of North Carolina, Univ. of North Carolina.*
- 2:45 **773.08** Disrupted lactation increases depression-like behavior in postpartum rats. J. L. WORKMAN*; A. R. GOBINATH; S. SOLOMON; C. CHOW; L. A. M. GALEA. *Univ. of British Columbia.*
- 3:00 **773.09** Impairments in cognitive flexibility are associated with deficits in parenting in animal models of postpartum depression. M. PEREIRA*; V. KHANNA; M. W. SHIFLETT; J. I. MORRELL. *Rutgers, The State Univ. of New Jersey, CMBN, Rutgers, The State Univ. of New Jersey, Psychology.*
- 3:15 **773.10** Stress exposure in different life periods result in similar behavioral and neuroendocrine alterations in postpartum female rats: Comparison between two animal models of postpartum depression. L. TORNER*; N. Y. GARCIA-VALENZUELA; B. MORENO-CARRANZA; C. CLAPP. *Inst. Mexicano Del Seguro Social, Inst. de Neurobiología, Univ. Nacional Autónoma de México.*

NANOSYMPOSIUM

774. Respiratory Neurobiology

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

Wed. 1:00 PM – Walter E. Washington Convention Center, 150A

- 1:00 **774.01** State-dependent regulation of breathing by the retrotrapezoid nucleus (RTN). P. G. BURKE; R. KANBAR; T. BASTING; W. M. HODGES; K. E. VIAR; R. L. STORNETTA; P. G. GUYENET*. *Univ. of Virginia, Lebanese American Univ., Univ. Virginia Sch. Med.*
- 1:15 **774.02** Hypoxia silences the retrotrapezoid nucleus (RTN) in conscious rats. I. C. WENKER*; T. BASTING; P. G. R. BURKE; R. KANBAR; K. E. VIAR; R. L. STORNETTA; P. G. GUYENET. *Univ. of Virginia, Lebanese American Univ.*
- 1:30 **774.03** Regulation of breathing by purinergic mechanisms in the retrotrapezoid nucleus in conscious rats. T. S. MOREIRA*; B. F. BARNIA; D. K. MULKEY; A. C. TAKAKURA. *Univ. of Sao Paulo, Univ. of Connecticut, Univ. of Sao Paulo.*
- 1:45 **774.04** Change in network connectivity during gasping generation in hypoxia: Prevention by a metabolic intermediary. E. FLORES*; A. NIETO-POSADAS; J. LOREA-HERNÁNDEZ; A. RIVERA-ANGULO; J. PÉREZ-ORTEGA; J. BARGAS; F. PEÑA-ORTEGA. *Univ. Nacional Autónoma De México, Inst. de Neurobiología, UNAM-Campus Juriquilla, Inst. de Fisiología Celular, UNAM.*
- 2:00 **774.05** Functional role of pre-Bötzinger complex excitatory neurons in respiratory rhythm generation: Optogenetic studies. H. KOIZUMI*; N. KOSHIYA; R. ZHANG; B. MOSHER; J. C. SMITH. *Cell. & Systems Neurobio. Sec, NINDS, NIH.*
- 2:15 **774.06** Computational modeling of the respiratory system: Focus on hypercapnia and active expiration. Y. I. MOLKOV; N. A. SHEVTSOVA; C. PARK; A. BEN-TAL; J. C. SMITH; J. E. RUBIN; I. A. RYBAK*. *Indiana Univ. - Purdue University, Indianapolis, Drexel Univ. Col. of Med., Univ. of Pittsburgh, Massey Univ., NIH.*

- 2:30 **774.07** The retrotrapezoid nucleus (RTN) is essential for CO₂ chemoreception. P. RUFFAULT; J. BRUNET; C. GORIDIS; G. FORTIN*. *CNRS 3294, INSERM 1024 - CNRS 8197, CNRS, Inst. de Neurobiologie Alfred Fessard.*
- 2:45 **774.08** Effects of acute (systemic and central) and chronic methamphetamine on respiratory, metabolic and cardiovascular tonic and reflex function. S. F. HASSAN*; T. WEARNE; C. RADFORD; J. L. CORNISH; A. K. GOODCHILD. *Australian Sch. of Advanced Med., Neuropharm. Lab.*
- 3:00 **774.09** Riluzole depresses burst generation of pre-inspiratory neurons in the rostral medulla of the brainstem-spinal cord preparation from newborn rats. S. LIN*; H. ONIAMRU. *Showa Univ., Showa Univ. Sch. of Med.*

NANOSYMPOSIUM

775. Long-Term Memory: Medial Temporal Lobe

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, 143A

- 1:00 **775.01** Predicting the integration of older and newer experiences. F. R. RICHTER*; A. J. H. CHANALES; B. A. KUHL. *New York Univ.*
- 1:15 **775.02** Hippocampus is place of interaction between unconscious and conscious memory retrieval. M. A. ZUEST*; P. COLELLA; T. P. REBER; S. RUCH; P. VUILLEUMIER; M. HAUF; K. HENKE. *Univ. of Bern, Univ. of Geneva, Inselspital, Univ. of Bern.*
- 1:30 **775.03** Rapid learning of complex temporal regularities in the hippocampus: Evidence from fMRI and a neural network model. A. C. SCHAPIRO*; K. A. NORMAN; N. B. TURK-BROWNE; M. M. BOTVINICK. *Princeton Univ.*
- 1:45 **775.04** Reward representation in the midbrain and medial temporal lobe during motivated encoding. D. ZEITHAMOVA*; B. D. GELMAN; A. R. PRESTON. *Univ. Texas, Austin.*
- 2:00 **775.05** Reinstatement of neural patterns during narrative free recall. J. CHEN*; Y. LEONG; K. A. NORMAN; U. HASSON. *Princeton Neurosci. Inst., Princeton Univ.*
- 2:15 **775.06** Episodic reinstatement affects hippocampal and fronto-parietal comparator signals during mnemonic decision making. M. L. MACK*; A. R. PRESTON. *The Univ. of Texas At Austin.*
- 2:30 **775.07** Context-dependent modulation of amygdala-prefrontal networks in early childhood. E. REDCAY*; K. RICE; T. RIGGINS. *Univ. of Maryland.*
- 2:45 **775.08** Changes in resting-state connectivity during the consolidation of delay and trace fear conditioning memory. D. H. SCHULTZ*; N. L. BALDERSTON; L. S. HOPKINS; F. J. HELMSTETTER. *Univ. Wisconsin-Milwaukee, Med. Col. of Wisconsin.*
- 3:00 **775.09** Functional connectivity differences of the anterior and posterior entorhinal cortex in humans. S. ANTERAPER*; S. WHITFIELD-GABRIELI; M. R. GEDDES; C. TRIANTAFYLLOU; J. GABRIELI; A. T. MATTFELD. *MIT, MIT, Massachusetts Gen. Hosp.*
- 3:15 **775.10** Medial temporal lobe activity distinguishes veridical from illusory recognition memory. Z. J. URGOLITES*; C. N. SMITH; L. R. SQUIRE. *UCSD, Veterans Affairs San Diego Healthcare Syst., UCSD, UCSD.*

* Indicated a real or perceived conflict of interest, see page 153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:30 **775.11** Singing in the brain: Neural correlates of auditory binding of lyrics and melodies. I. ALONSO*; R. VALABRÈGUE; S. DUPONT; S. SAMSON. *Univ. of Lille, Ctr. de neuroimagerie de recherche (CENIR), Brain and Spine Inst. (ICM), La Pitié-Salpêtrière hospital.*
- 3:45 **775.12** Rapid memory consolidation by transient theta oscillations between the human medial temporal lobe and the rest of the brain. R. THÉZÉ*; A. G. GUGGISBERG; L. NAHUM; A. SCHNIDER. *Geneva Univ. Hosp. (HUG).*

NANOSYMPOSIUM

776. Predictive Coding: Human Cognition

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, 152A

- 1:00 **776.01** Hierarchical detection of auditory regularities: Cortical layers and cortical hierarchies suggest a predictive coding mechanism. L. MELLONI*; T. THESEN; C. M. SCHWIEDRZIK; W. DOYLE; O. DEVINSKY; D. FRIEDMAN; P. DUGAN; I. ULBERT; S. S. CASH; W. SINGER; C. E. SCHROEDER; E. HALGREN. *Columbia Univ., Max Planck Inst. for Brain Res., New York Univ. Sch. of Med., The Rockefeller Univ., Natl. Inst. of Neurosci., Massachusetts Gen. Hosp., Ernst Strüngmann Inst. for Neurosci. in collaboration with the Max Planck Society, Nathan Kline Inst., UCSD.*
- 1:15 **776.02** Abstract encoding of auditory sequences and deviance detection in the macaque brain. L. WANG*; L. UHRIG; B. JARRAYA; S. DEHAENE. *Inst. of Cognitive Neurosci., INSERM-CEA Cognitive Neuroimaging Unit.*
- 1:30 **776.03** Modulation of sensory predictions by temporal attention: A DCM/MEG study. R. AUKSZTULEWICZ*; K. FRISTON. *Univ. Col. London, Univ. Col. London.*
- 1:45 **776.04** Experimental evidence for circular inference in schizophrenia: Beyond predictive coding? S. DENEVE*; R. JARDRI. *Ecole Normale Supérieure, Paris.*
- 2:00 **776.05** Modeling the emergence of gamma band oscillations in the visual thalamocortical pathway. A. BASTOS*; H. B. S. ESMERALDO; G. R. MANGUN; W. M. USREY. *Picower Inst. For Learning and Memory, Univ. of California, Davis, Ernst Strüngmann Inst. (ESI) for Neurosci. in Cooperation with Max Planck Society, LASCON, Inst. Tecnológico de Aeronáutica (ITA).*
- 2:15 **776.06** Human visual areas exert feedforward and feedback influences through distinct frequency channels. G. MICHALAREAS*; J. VEZOLI; S. VAN PELT; H. KENNEDY; P. FRIES. *Ernst Strüngmann Inst. (ESI) For Neurosci., Stem Cell and Brain Res. Institute, INSERM U846.*
- 2:30 **776.07** Predictive coding of auditory and contextual information in early visual cortex - evidence from layer specific fMRI brain reading. L. MUCKLI*. *Univ. of Glasgow.*
- 2:45 **776.08** The contribution of frequency-specific activity to hierarchical information processing in human auditory cortices. A. GIRAUD*; L. FONTOLAN; C. LIEGEOIS-CHAUVEL; B. MORILLON. *Dept of Neurosci. - Univ. of Geneva, INSERM U1106 – Inst. de Neurosciences des Systèmes, Columbia Univ.*
- 3:00 **776.09** Coexistence of representations of basic tastes and hedonic valence in subregions of gustatory cortices. J. CHIKAZOE*; D. H. LEE; N. KRIEGESKORTE; A. K. ANDERSON. *Cornell Univ., Univ. of Toronto, Cognition and Brain Sci. Unit.*

- 3:15 **776.10** Representation of predacity of animal species in the human brain. A. C. CONNOLLY*; J. V. HAXBY. *Dartmouth Col.*
- 3:30 **776.11** A comparison of the effects of transcranial direct current stimulation and caffeine on vigilance and cognitive performance during extended wakefulness. A. MCKINLEY*; L. K. MCINTIRE; J. M. NELSON; C. GOODYEAR. *Air Force Res. Lab., Infoscitex.*
- 3:45 **776.12** Neural correlates of mind wandering and attention during focused meditation. W. HASENKAMP*; C. WILSON-MENDENHALL; L. BARSALOU. *Mind & Life Inst., Northeastern Univ., Emory Univ.*

POSTER

777. Synapse Development

Theme A: Development

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 A1 **777.01** RNA export through nuclear envelope budding in premature aging disorders. Y. LI*; L. HASSINGER; J. ASHLEY; J. NUNNARI; M. MOORE; V. BUDNIK. *UMMS.*
- 2:00 A2 **777.02** Presynaptic $\alpha 2\delta$ subunits are essential for synapse formation and calcium channel trafficking. C. L. SCHÖPF*; M. CAMPIGLIO; S. GEISLER; R. STANIKA; A. LIEB; B. E. FLUCHER; B. NIMMERVOLL; G. J. OBERMAIR. *Med. Univ. Innsbruck, Dept. of Pharmacol. and Toxicology LFU Innsbruck.*
- 3:00 A3 **777.03** Impaired synaptogenesis and learning in MARK2/Par1b knockout mice. Q. WU*; X. WANG; Z. PANG; G. WAGNER; H. ZHANG. *Rutgers Robert Wood Johnson Med. Sch., Child Hlth. Inst. of New Jersey, Rutgers, The State Univ. of New Jersey.*
- 4:00 A4 **777.04** Role of LRRTM1/2 in synaptic plasticity, memory, and region-selective synapse development. S. A. CONNOR*; T. J. SIDDIQUI; F. MILLS; P. TARI; S. AU-YEUNG; H. KAWABE; S. BAMJI; N. BROSE; Y. WANG; A. CRAIG. *Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia, Max Planck Inst. of Exptl. Med., Ctr. for Nanoscale Microscopy and Mol. Physiol. of the Brain, Univ. of British Columbia.*
- 1:00 A5 **777.05** Localization of kirrel3 in the synapses during postnatal and adult stages in the mouse cerebellum. T. HISAOKA*; T. KITAMURA; Y. MORIKAWA. *Dept. of Anat. & Neurobiology, Wakayama Med. Univ., Div. of Cell. Therapy, Advanced Clin. Res. Center, The Inst. of Med. Science, The Univ. of Tokyo.*
- 2:00 A6 **777.06** Circuit integration of VIP+ interneurons during development. D. VAN VERSEDAAL*; S. LEE; S. N. TUNCDEMIR; X. JAGLIN; B. WAMSLEY; G. MIYOSHI; G. FISHELL. *NYUMC.*
- 3:00 A7 **777.07** Foxp2 is required for morphological development of medium-sized spiny neurons in the mouse striatum. Y. CHEN; F. LIU*. *Natl. Yang-Ming Univ.*
- 4:00 A8 **777.08** • Leptin controls synaptogenesis by regulating the expression of Kruppel-like factor 4 (KLF4) and STAT3 signaling. G. A. WAYMAN*; M. DHAR; H. SHIINA; K. TYSON; M. ZHU; S. M. APPELYARD. *Washington State Univ.*

- 1:00 A9 **777.09** Neuron specific gene 2 (Nsg2): a novel AMPA receptor interacting protein involved in secretory vesicle transport. P. CHANDER; J. P. WEICK*. *Univ. of New Mexico*.
- 2:00 A10 **777.10** Neuromuscular NMDA receptors modulate developmental synapse elimination. S. B. UDIN*; B. SLUSHER; C. GARCIA; M. BANCONE; M. MORALES; K. PERSONIUS. *SUNY, Johns Hopkins Sch. of Med., SUNY*.
- 3:00 A11 **777.11** Afadin plays a role in formation of puncta adherentia junction and differentiation of presynapses in hippocampal neurons. D. TOYOSHIMA*; K. MANDAI; T. MARUO; I. SUPRIYANTO; M. MORI; Y. TAKAI. *Dept. of Pediatrics Kobe Univ. Grad., Kobe Univ. Grad. Sch. of Med., CREST, Japan Sci. and Technol. Agency, Fac. of Hlth. Sciences, Kobe Univ. Grad. Sch. of Hlth. Sci.*
- 4:00 A12 **777.12** Maintenance of the large-scale depolarization wave in the embryonic chick brain against deprivation of the rhythm generator. Y. MOMOSE-SATO*; K. SATO. *Kanto Gakuin Univ., Col. Human & Envrn. Studies, Komazawa Women's Univ.*
- 1:00 A13 **777.13** Optical survey of initial expression of synaptic function in the embryonic chick trigeminal sensory nucleus. K. SATO*; Y. MOMOSE-SATO. *Dept. Hlth. & Nutr. Sci., Komazawa Women's Univ., Kanto-Gakuin Univ. Coll. Human & Environ. Studies*.
- 2:00 A14 **777.14** Matricryptins derived from collagen XIX induce inhibitory synapse formation. J. SU*; M. FOX. *Virginia Tech. Carilion Res. Inst.*
- 3:00 A15 **777.15** ▲ Loss of synaptogenic collagen XIX results in spontaneous seizures, increased seizure susceptibility, and schizophrenia-related behaviors. K. M. LIPPOLD*; J. SU; J. CHEN; M. FOX. *Virginia Tech. Carilion Res. Inst.*
- 4:00 A16 **777.16** Astrocyte transforming growth factor beta 1 promotes inhibitory synapse formation via CAM kinase II signaling. L. P. DINIZ; V. TORTELLI; M. N. GARCIA; A. BÉRGAMO; H. M. MELO; G. S. S. DA SILVA; F. G. DE FELICE; S. V. ALVES-LEON; J. M. DE SOUZA; L. F. ROMÃO; F. C. GOMES*. *Federal Univ. of Rio De Janeiro, Federal Univ. of Rio De Janeiro, Federal Univ. of Rio De Janeiro*.
- 1:00 A17 **777.17** FGF22 and FGFBP1 regulate presynaptic differentiation. M. J. TENGA*; H. UMEMORI; G. VALDEZ. *Virginia Tech. Carilion Res. Inst., Boston Children's Hospital, Harvard Univ., Virginia Polytechnic Inst. and State Univ.*
- 2:00 A18 **777.18** Excitatory and inhibitory synaptogenesis during development of neuronal networks *in vitro*. J. SURESH*; J. WANG; V. P. BINDOKAS; J. D. MARKS; W. VAN DRONGELEN. *The Univ. of Chicago, The Univ. of Chicago*.
- 3:00 A19 **777.19** Development of asymmetric inhibition required for direction selectivity in the retina. R. D. MORRIE*; M. B. FELLER. *Univ. of California, Berkeley*.
- 4:00 A20 **777.20** The role of Axin in dendrite and spine development. Z. LIANG*; Y. CHEN; E. FEI; W. FANG; W. FU; A. FU; N. IP. *Hong Kong Univ. of Sci. & Technol., State Key Lab. of Mol. Neurosci., Mol. Neurosci. Ctr.*
- 1:00 A21 **777.21** Exploring cell-type specific alternative splicing activity in neurons using bichromatic reporters. T. NGUYEN*; D. SCHREINER; P. SCHEIFFELE. *Biozentrum, Univ. of Basel*.

- 2:00 A22 **777.22** Spikar, a novel transcriptional coactivator, regulates the formation and stabilization of dendritic spines dependent on drebrin. H. YAMAZAKI*; T. SHIRAO. *Gunma Univ.*
- 3:00 A23 **777.23** Intra-axonal translation is required for synapse formation. R. O. COSTA; J. R. PEDRO; M. PINTO; H. R. RYU; N. L. JEON; S. R. JAFFREY; R. D. ALMEIDA*. *Ctr. For Neurosci. and Cell Biol., PhD programme in Exptl. Biol. and Biomedicine (PDBEB), WCU Multiscale Mechanical Design, Seoul Natl. Univ., Sch. of Mechanical and Aerospace Engineering, Seoul Natl. Univ., Weill Med. Col. of Cornell Univ.*
- 4:00 A24 **777.24** Thyroid hormones induce neural differentiation and synapse formation in the cerebral cortex. R. S. DEZONNE*, SR; J. STIPURSKY; F. GOMES. *Federal Univ. of Rio De Janeiro*.
- 1:00 A25 **777.25** Rewiring inhibitory microcircuits in mouse motor cortex by direct lineage reprogramming of pyramidal neurons *in vivo*. Z. YE*; M. A. MOSTAJO-RADJI; J. R. BROWN; C. ROUAUX; G. SRUBEK TOMASSY; T. K. HENSCH; P. ARLOTTA. *Harvard Univ., Harvard Univ., Inst. Natl. de la Santé et de la Recherche Médicale, Harvard Univ.*

POSTER

778. Synapse Formation: Trans-Synaptic Mechanisms

Theme A: Development

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 A26 **778.01** Interleukin-1 β alters cortical connectivity in development and disease through regulating synaptic localization of IL-1 β receptors. M. ESTES*; A. MCALLISTER. *UC Davis, Univ. of California, Davis*.
- 2:00 A27 **778.02** Dissecting the structural role of GABA(A) receptors in synapse formation. L. E. BROWN; J. E. BENILLOUCHE-ARAMA; M. W. NICHOLSON; F. A. STEPHENSON; A. M. THOMSON; J. N. JOVANOVIĆ*. *UCL Sch. of Pharmacy, Univ. Col. London*.
- 3:00 A28 **778.03** Receptors and signaling that distinctly mediate excitatory and inhibitory presynaptic differentiation induced by the presynaptic organizers FGF22 and FGF7. A. K. DABROWSKI*; A. TERAUCHI; C. STRONG; H. UMEMORI. *Univ. of Michigan, Boston Children's Hosp., Univ. of Michigan*.
- 4:00 A29 **778.04** Ephrin-B3 regulates excitatory synapse density through cell-cell competition. N. T. HENDERSON; S. LEMARCHAND; M. HRUSKA*; M. DALVA. *Thomas Jefferson Univ., Thomas Jefferson Univ.*
- 1:00 A30 **778.05** EphB tyrosine kinase signaling in living dendritic filopodia. Y. MAO; J. ZHU; K. HANAMURA; M. B. DALVA*. *Thomas Jefferson Univ.*
- 2:00 A31 **778.06** Transcriptional coordination of synaptogenesis and neurotransmitter signaling in *C. elegans* motor neurons. P. KRATSIOS*; B. PINAN-LUCARRÉ; S. KERK; J. BESSEREAU; O. HOBERT. *Columbia Univ., Univ. Claude Bernard Lyon1*.
- 3:00 A32 **778.07** The gamma-protocadherins interact physically and functionally with the neuroligin-neurexin adhesion complex. M. J. MOLUMBAY; D. J. NEWBOLD; D. SCHREINER; N. K. KOBLESKY; A. M. GARRETT; J. J. RADLEY; J. A. WEINER*. *The Univ. of Iowa, The Univ. of Iowa, Biozentrum, Univ. of Basel, The Jackson Lab., The Univ. of Iowa*.

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 A33 **778.08** Stepping out of the neurogenic shadow: Role of basic helix loop helix protein, daughterless, in post-mitotic neurons in *Drosophila melanogaster*. M. D'ROZARIO*; F. LIEBL; D. MAREDA. *Drexel Univ., Southern Illinois Univ. - Edwardsville*.

POSTER

779. Development of Motor Systems

Theme A: Development

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 A34 **779.01** ● Decreased number of muscle synergy during gait is associated with neural dysfunction and motor function in cerebral palsy. Y. HASHIGUCHI*; K. OHATA; R. KITATANI; N. YAMAKAMI; S. OSAKO; Y. AGA; S. YAMADA. *Kyoto Univ. Human Hlth. Sci., Kyoto Univ., Fujita Hlth. Univ. Hosp.*
- 2:00 A35 **779.02** The role of GAD67 and VGAT in the functional and morphological development of motor neurons. M. J. FOGARTY*; R. KANJHAN; M. C. BELLINGHAM; P. G. NOAKES. *Univ. of Queensland*.
- 3:00 A36 **779.03** The differential effects of prenatal LPS challenge on neurobehavioral outcomes in affected offspring depend on gestational age. M. STRALEY*; S. J. CRAMPTON; J. F. CRYAN; S. O'MANONY; G. W. O'KEEFFE. *Univ. Col. Cork, Irish Ctr. for Fetal and Neonatal Translational Res., Alimentary Pharmabiotic Ctr.*
- 4:00 A37 **779.04** Experience-dependent regulation of singing-driven gene expression in the song system during the critical period for vocal learning. S. HAYASE*; E. OHGUSHI; M. KOBAYASHI; K. WADA. *Hokkaido Univ.*
- 1:00 A38 **779.05** Optimizing inhibitory effect in primary motor cortex by low-frequency repetitive transcranial magnetic stimulation. M. CHEN*; H. DENG; R. SCHMIDT; T. KIMBERLEY. *Univ. of Minnesota*.
- 2:00 A39 **779.06** Emergence of motor cortex activity as infants develop functional motor skills. R. NISHIYORI*; S. BISCONTI; B. ULRICH. *Univ. of Michigan, Univ. of Michigan*.
- 3:00 A40 **779.07** Postnatal development of the corticospinal system examined in awake animals using indwelling stimulation and recording techniques. E. SINOPOULOU; P. T. WILLIAMS; J. H. MARTIN*. *The City Col. of the City Univ. of NY, The City Col. of the City Univ. of NY*.
- 4:00 A41 **779.08** Development of corticospinal projection and its difference between cervical and lumbar targets. H. KAMEDA*; T. KAMIYAMA; N. MURABE; S. FUKUDA; N. YOSHIOKA; H. MIZUKAMI; K. OZAWA; M. SAKURAI. *Teikyo Univ. Sch. of Med., Jichi Med. Univ.*
- 1:00 A42 **779.09** Differential expression of nachrs at zebrafish red and white fiber nmjs during development. K. T. AHMED*; D. W. ALI. *Univ. of Alberta*.
- 2:00 A43 **779.10** Timing is everything: Hormonal control of the developing SNB in mice. A. M. WELSCH*; C. L. JORDAN; S. M. BREEDLOVE. *Michigan State Univ.*
- 3:00 A44 **779.11** Spontaneous network activity in the embryonic spinal cord is regulated by presynaptic nicotinic modulation of GABAergic transmission. C. E. GONZALEZ-ISLAS*; M. GARCIA-BEREGUAIN; P. WENNER. *Emory Univ. Sch. Med., Emory Univ. Sch. Med.*

- 4:00 A45 **779.12** Differential gene expression in purified populations of mouse sympathetic neurons that express neuropeptide Y. J. P. HORN*; K. M. SIKORA; P. H. M. KULLMANN. *Univ. of Pittsburgh*.

- 1:00 A46 **779.13** Expression of membrane-targeted Arch in the spinal cord, dorsal root ganglia and peripheral nerves of embryonic chick. A. A. SHARP*; H. L. DEAL; S. FROMHERZ. *SIU Sch. Med., Benedictine Univ.*

- 2:00 A47 **779.14** A role for gap junction coupling in segregating axial and appendicular spinal locomotor networks in metamorphosing *Xenopus laevis* tadpoles. M. WAGNER; K. T. SILLAR*. *Univ. St Andrews*.

POSTER

780. Development of Sensory Systems

Theme A: Development

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 A48 **780.01** Gene expression programs for retinal ganglion cell type development. T. C. BADEA*; S. SAJGO; M. G. GHINIA; M. BROOKS. *Natl. Eye Inst.*
- 2:00 A49 **780.02** Darkness does not restore visual or neural plasticity in the central visual pathways of adult cats. K. HOLMAN; K. R. DUFFY; D. E. MITCHELL*. *Dalhousie Univ.*
- 3:00 A50 **780.03** Eye-specific organization of retinal ganglion cell axons between intermediate and thalamic targets of the mouse retinogeniculate pathway. A. A. SITKO*; T. KUWAJIMA; C. A. MASON. *Columbia Univ., Columbia Univ., Columbia Univ.*
- 4:00 A51 **780.04** ● Development of face perception following the onset of sight in congenitally blind humans. T. K. GANDHI*; P. SWAMI; A. KALIA; V. MAHAJAN; S. GORLIN; M. MENG; S. GANESH; H. MAHAJAN; S. GABRIELI; P. SINHA. *Defence Inst. of Physiol. & Allied Sci. (DIPAS), MIT, Indian Inst. of Technol., Mahajan Imaging Ctr., Choicestream, Dartmouth Col., Shroff Charity Eye Hosp.*
- 1:00 A52 **780.05** A novel class of fast spiking neurons identified in the *Xenopus* tadpole optic tectum. A. S. HAMODI; C. M. CIARLEGLIO; C. D. AIZENMAN; K. G. PRATT*. *Univ. of Wyoming, Brown Univ., Brown Univ.*
- 2:00 A53 **780.06** Local repulsive interactions in retinal mosaic generate long-range order and consistent periodicity. J. JANG*; P. SAILAMUL; S. PAIK. *KAIST*.
- 3:00 A54 **780.07** The role of the minor spliceosome in acute and chronic stress response in the mouse retina. M. BAUMGARTNER*. *Univ. of Connecticut*.
- 4:00 A55 **780.08** Postnatal changes of expression patterns of VGLUT1, VGLUT2 and VGAT1 in mouse visual cortex and thalamus. T. TAKAHATA*; T. A. HACKETT. *Vanderbilt Univ., Vanderbilt Univ.*
- 1:00 A56 **780.09** Measuring order in retinotopic projections: Assessing technical and biological sources of variability. J. HJORTH*; E. SAVIER; D. C. STERRATT; M. REBER; S. J. EGLEN. *Cambridge Computat. Biol. Inst., Univ. of Strasbourg, Univ. of Edinburgh*.
- 2:00 A57 **780.10** ▲ A study of the daphnia magna hedgehog gene and its role in eye development. M. GRAFELMAN; M. L. BECKMAN*. *Augsburg Col.*

- 3:00 A58 **780.11** Binocular deprivation reveals developmental zif268 expression central-to-peripheral gradient in cat area 17, but not in area 18. K. BURNAT*; K. LASKOWSKA-MACIOS; T. HU; M. KOSSUT; L. ARCKENS. *Nencki Inst., KU Leuven*.
- 4:00 A59 **780.12** The normal development of resting state functional connectivity in infant macaque monkeys. J. L. VINCENT*; K. SRIHASAM; M. S. LIVINGSTONE. *Harvard Med. Sch.*
- 1:00 A60 **780.13** Loss of Hgs in developing retinas causes defective photoreceptor outer segment development. T. THEIN*; L. JIANG; S. BLACKSHAW. *Johns Hopkins Univ. Sch. of Med.*
- 2:00 A61 **780.14** Synaptotagmin I in RGCs regulates the patterned spontaneous activity in the developing rat retina. C. YANG*; C. WANG. *Natl. Taiwan Univ.*
- 3:00 A62 **780.15** Functions of the GFL/Ret signaling pathway in the development of the peripheral taste system. C. R. DONNELLY*; B. A. PIERCHALA. *Univ. of Michigan - Sch. of Dent.*
- 4:00 A63 **780.16** Postnatal reorganization of primary gustatory afferent terminal fields in the mouse brainstem is altered by prenatal dietary sodium history. S. ZHENG*; C. SUN; D. L. HILL. *Univ. Virginia*.
- 1:00 A64 **780.17** Postnatal development of sensory-evoked neuronal population activity in mouse barrel cortex. A. VAN DER BOURG*; F. HELMCHEN. *Brain Res. Inst.*
- 2:00 A65 **780.18** Early postnatal development of synaptic input and intrinsic excitability in barrel cortex. L. MURRAY*; M. C. ASHBY. *Bristol Univ.*
- 3:00 A66 **780.19** Developmental profiles of the intrinsic properties and synaptic function of auditory neurons in preterm and term baboon neonates. S. KIM; S. LEE; C. BLANCO; J. KIM*. *Univ. of Texas Hlth. Sci. Center, San Antonio, Univ. of Texas Hlth. Sci. Ctr.*
- 4:00 A67 **780.20** A genetic fate map of the avian brainstem auditory nuclei. M. LIPOVSEK*; D. FRANCHINI; R. WINGATE. *MRC Ctr. For Developmental Neurobio.*
- 1:00 A68 **780.21** ▲ Dicer knockout affects the expression of vGluT1 in type Ia afferents. M. M. FERRER SOCORRO*; S. M. O'TOOLE; S. B. NELSON. *Brandeis Univ.*
- 2:00 B1 **780.22** Coordinated changes in neuronal activity and vascular network properties in Wistar rat auditory brainstem during postnatal development. L. SHI; Q. BROWN; B. FU; A. RODRIGUEZ-CONTRERAS*. *CCNY, CUNY, CCNY, CUNY*.
- 3:00 B2 **780.23** ▲ c-Fos immunohistochemical study of vestibular activity in developing opossums, *Monodelphis domestica*. F. LANTHIER*; T. CABANA; J. PFLIEGER. *Univ. De Montréal*.
- 4:00 B3 **780.24** The developmental expression of PTEN in the spiral limbus of the mouse cochlea. Y. DONG; L. SUI; M. TOKUDA; B. HU*. *State Univ. Buffalo, Kagawa Univ. Fac. of Med.*
- 1:00 B4 **780.25** Crossmodal plasticity of intracortical connections in auditory cortex. X. MENG*; P. KANOLD. *Univ. of Maryland*.
- 2:00 B5 **780.26** Developmental origin of axon initial segment-possessing olfactory bulb dopaminergic cells. E. GALLIANO*; A. N. CHAND; M. S. GRUBB. *King's Col. London*.

- 3:00 B6 **780.27** Axon initial segment plasticity in olfactory bulb dopaminergic interneurons *In vitro and in vivo*. A. N. CHAND*; E. GALLIANO; T. RYAN; M. S. GRUBB. *King's Col. London*.
- 4:00 B7 **780.28** Developing excitation in olfactory bulb projection neurons. A. S. MOBLEY*; M. A. TUSTY; C. A. GREER. *Western New England Univ., Yale Univ.*
- 1:00 B8 **780.29** Lamin B1 is required for olfactory sensory neuron maturation. C. M. WALL*; S. G. YOUNG; Y. ZHENG; H. ZHAO. *Johns Hopkins Univ., Carnegie Inst. of Washington, UCLA*.
- 2:00 B9 **780.30** Self-generated movements with "unexpected" sensory consequences. A. TIRIAC*; C. DEL RIO-BERMUDEZ; M. S. BLUMBERG. *The Univ. of Iowa*.

POSTER

781. AMPA Receptor Modifications

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

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 B10 **781.01** Biochemical characterization and single particle electron microscopy of AMPA-Rs embedded in lipid nanodiscs. T. NAKAGAWA*; C. M. AZUMAYA. *Vanderbilt Univ. Sch. of Med.*
- 2:00 B11 **781.02** ● Porcupine controls stability and composition of hippocampal AMPA receptors. H. YU*; N. HARMEL; T. YAMASAKI; S. TOMITA; D. S. BREDET. *Johnson and Johnson, Univ. of Düsseldorf, Yale Univ. Sch. of Med.*
- 3:00 B12 **781.03** CPG2, a regulator of postsynaptic glutamate receptor internalization, directly links components of the endocytic machinery to the spine cytoskeleton. S. LOEBRICH*; M. BENOIT; J. KONOPKA; J. GIBSON; E. NEDIVI. *MIT*.
- 4:00 B13 **781.04** Multiple structural domains influence ampa receptor assembly. Q. GAN*; C. L. SALUSSOLIA; R. KAZI; L. P. WOLLMUTH. *Stony Brook Univ., Stony Brook Univ., Stony Brook Univ.*
- 1:00 B14 **781.05** Photoinactivation analysis of synaptic AMPA receptors in PSD-95 knockout mice. H. KAMIYA*. *Hokkaido Univ. Grad. Sch. of Med.*
- 2:00 B15 **781.06** Acetylation of the AMPA receptor subunits GluR1 and GluR2 and the endoplasmic reticulum chaperone sigma-1 receptor: Implication for abuse of cocaine. Y. YASUI*; T. SU. *NIH/NIDA*.
- 3:00 B16 **781.07** Dissecting the role of AMPAR subunit composition on synapse maturation in CGE-derived hippocampal interneurons. G. AKGUL*; E. BARKSDALE; K. A. PELKEY; C. J. MCBAIN. *Natl. Inst. of Hlth.*
- 4:00 B17 **781.08** Reduced kainate receptors at hippocampal mossy fiber synapse in PSD-95 knockout mice. E. SUZUKI*; H. KAMIYA. *Hokkaido Univ. Grad. Sch. of Med., Res. Fellow*.
- 1:00 B18 **781.09** Genetic dissection of a defined neural circuit reveals the role of kainate and AMPA receptors in taxis behaviors. P. MALDONADO; P. J. BROCKIE*; J. GARDNER; J. E. MELLEM; D. M. MADSEN; A. V. MARICQ. *Univ. of Utah*.

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 B19 **781.10** Corticosteroid regulation of AMPA receptor mediated synaptic function. H. XIONG*; F. CASSÉ; S. MARTIN; M. JOËLS; H. KRUGERS. *Swammerdam Inst. For Life Sci., Inst. de Pharmacologie Moléculaire et Cellulaire, Rudolf Magnus Inst. of Neurosci.*
- 3:00 B20 **781.11** Chronic progesterone treatment increases the AMPA receptor-mediated neurotransmission via the activation of progesterone receptors. S. JOSHI*; K. RAJASEKARAN; C. PASSMORE; J. WILLIAMSON; J. KAPUR. *Univ. of Virginia, Univ. of Texas Southwestern Med. Ctr.*

POSTER

782. GABAA Receptor Pharmacology and Function

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

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 B21 **782.01** IWITHDRAWN.
- 2:00 B22 **782.02** Glutamate and GABA-A receptor mRNA levels in human brain co-vary homeostatically and low values characterize psychosis. M. REIMERS*; X. CHEN. *Virginia Inst. of Psychiatric and Behavioral Genet.*
- 3:00 B23 **782.03** A methoxy piperidine differentially interacts at $\alpha\beta$ and $\alpha\beta\gamma$ GABAA receptors. D. B. WILLIAMS*; J. P. CLAVIJO; D. T. PARKER; J. J. KEITH. *Winston-Salem St Univ.*
- 4:00 B24 **782.04** Molecular cloning of a GABA receptor subunit from crayfish and voltage-clamp analysis of an homo-oligomeric receptor expressed in HEK-293 cells. E. N. JIMÉNEZ-VÁZQUEZ; C. E. DÍAZ-VELÁSQUEZ; J. M. ARIAS*; U. GARCÍA. *Ctr. de Investigación y Estudios Avanzados - IPN, FES Iztacala -UNAM.*
- 1:00 B25 **782.05** Modulation of GABA(A) receptors by dopamine. P. HOERBELT*; M. W. FLECK. *Albany Med. Col.*
- 2:00 B26 **782.06** Ectopic expression of GABAA receptor subunits increases tonic inhibition in somatostatin neurons in the hilus of the dentate gyrus. Z. PENG; X. TONG; M. WALLNER; N. ZHANG; Y. CETINA; T. S. OTIS; C. R. HOUSER*. *David Geffen Sch. of Med. at UCLA, UCLA.*
- 3:00 B27 **782.07** Input-specific expression of the alpha5 GABAA receptor subunit in hippocampal interneurons. E. MAGNIN; O. CAMIRE; L. TOPOLNIK*. *CRIUSMQ, Laval Univ.*
- 4:00 B28 **782.08** RNF34 interacts with and promotes GABAA receptor degradation via ubiquitination of the $\gamma 2$ subunit. H. JIN*; T. CHIOU; C. P. MIRALLES; A. L. DE BLAS. *Univ. of Connecticut.*
- 1:00 B29 **782.09** Synaptic pruning in the male hippocampus during adolescence: Reversal by knock-out of the GABAA receptor $\alpha 4$ subunit. J. PARATO*; S. SMITH. *SUNY Downstate.*
- 2:00 B30 **782.10** ● The neurosteroid pregnanolone enhances actions of etomidate as a positive allosteric modulator of $\alpha 1\beta 2\gamma 2\text{L}$ γ -aminobutyric acid type A receptors. G. AKK*; P. LI; J. BRACAMONTES; B. MANION; J. STEINBACH; A. EVERS. *Washington Univ. Sch. Med.*
- 3:00 B31 **782.11** ▲ Extracts of *Passiflora incarnata* modulate the gamma-aminobutyric acid type A receptor. G. HAMERSKY; M. E. QUACH; T. MCKECHNIE; C. M. INGERSOLL; J. A. TEISSERE*. *Muhlenberg Coll.*

- 4:00 B32 **782.12** GABA_A receptor agonist activity and anxiolytic effects of organic acids. Y. YAMADA*; H. IZU. *Dept of Biotech and Chem Fac of Engin. Kinki Univ., Natl. Res. Inst. of Brewing.*
- 1:00 B33 **782.13** The effects of early-life stress on nucleus accumbens GABA_A receptor function and cocaine-mediated behaviour. S. J. MITCHELL*; E. P. MAGUIRE; B. G. GUNN; L. CUNNINGHAM; M. B. HERD; S. L. KING; D. STEPHENS; J. D. SWINNY; D. BELELLI; J. J. LAMBERT. *Dundee Univ., Univ. of Sussex, Univ. of Portsmouth.*
- 2:00 B34 **782.14** Modulation of spinal motoneuron excitability by extrasynaptic $\alpha\alpha$ 4/6 GABAA receptors. R. DELGADO-LEZAMA*; C. ANDRÉS; J. AGUILAR; R. GONZÁLEZ-RAMÍREZ; D. ELÍAS; R. FELIX. *CINVESTAV-IPN, Hosp. Gen. "Dr. Manuel González", Cinvestav-IPN, Cinvestav-IPN.*
- 3:00 B35 **782.15** Local impermeant anions establish the neuronal chloride concentration. J. C. GLYKYS*; V. DZHALA; K. EGAWA; T. BALENA; Y. SAPONJIAN; K. V. KUCHIBHOTLA; B. J. BACSKAI; K. T. KAHLE; T. ZEUTHEN; K. J. STALEY. *Massachusetts Gen. Hosp., NYU Sch. of Med., Massachusetts Gen. Hosp., Univ. of Copenhagen.*

POSTER

783. Inhibitory Plasticity

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

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 B36 **783.01** Assessing transcriptional and post-transcriptional mechanisms in fast spiking cell homeostatic plasticity. S. M. O'TOOLE*; P. T. TANEJA; S. B. NELSON. *Brandeis Univ., Brandeis.*
- 2:00 B37 **783.02** Target-cell dependent plasticity of inhibitory synapses in mammalian cortex. Y. ESCOBEDO LOZOYA*; Q. LEI; S. B. NELSON. *Brandeis Univ.*
- 3:00 B38 **783.03** Reciprocal regulation of gephyrin-mediated clustering of GABA type A receptors by palmitoylation and S-nitrosylation. B. DEJANOVIC*; G. SCHWARZ. *Inst. of Biochem., Univ. of Cologne.*
- 4:00 B39 **783.04** Spike-timing dependent plasticity of fast-signaling inhibitory synapses in the input layers of auditory cortex. E. D. VICKERS*; R. SCHNEGGENBURGER. *EPFL.*
- 1:00 B40 **783.05** Compartment-specific regulation of interneuron connectivity. H. VOLKMER*; S. BEUTER; J. WUCHTER; S. KELLER; M. KRIEBEL. *NMI.*
- 2:00 B41 **783.06** ● Excitatory GABAergic transmission impairs synaptic plasticity and memory in Down syndrome. A. CONTESTABILE*; G. DEIDDA; M. PARRINI; S. NASKAR; I. FERNANDEZ BOZARTH; L. CANCEDDA. *Fondazione Inst. Italiano Di Tecnologia.*
- 3:00 B42 **783.07** Depolarizing GABA orchestrates inhibition in developing mouse neocortex *in vivo*. K. KIRMSE; M. KUMMER; Y. KOVALCHUK; O. W. WITTE; O. GARASCHUK; K. HOLTHOFF*. *Friedrich-Schiller-Universität Jena, Eberhard-Karls Univ. Tübingen.*
- 4:00 B43 **783.08** ● Postsynaptic modulation of GABAergic synaptic transmission by Kainate receptors. J. KANG*. *New York Med. Col.*

- 1:00 B44 **783.09** The GABAergic circuits of the amygdala modulate the fear memory. O. KWON*; J. LEE; H. KIM; S. LEE; H. JO; J. KIM. *POSTECH*.
- 2:00 B45 **783.10** Both H1 and H2 receptors are involved in histamine-dependent enhancement of GABAergic transmission in the entorhinal cortex. N. I. CILZ*; S. LEI. *Univ. of North Dakota*.
- 3:00 B46 **783.11** Epigenetic modifications of GABAergic synaptic plasticity and AKAP signaling after early maternal deprivation. J. KODANGATTIL NARAYANAN*; S. GOUTY; M. E. AUTHEMENT; B. M. COX; F. S. NUGENT. *USUHS*.
- 4:00 B47 **783.12** Synapsin isoforms regulating GABA release from hippocampal interneurons. S. SONG*; G. J. AUGUSTINE. *Korea Inst. of Sci. and Technology(KIST), Lee Kong Chian Sch. of Med.*
- 1:00 B48 **783.13** Synaptic impairment of frontal cortical fast-spiking basket cells induces cognitive and behavioural deficits in mice with a *Cacna1a* loss-of-function mutation. A. LUPIEN-MEILLEUR*; I. RIEBE; L. DAMAJ; C. VANASSE; L. GAGNON; A. VAN DEN MAAGDENBERG; J. LACAILLE; E. ROSSIGNOL. *CHU Sainte-Justine, Univ. de Montréal, CHRU Rennes, Leiden Univ. Med. Ctr.*
- 2:00 B49 **783.14** Adaptive wildtype GABAA receptor expression, distribution, mobility and seizure activity in *Gabrb3*^{+/-} mice. C. ZHANG*; W. SHEN; C. ZHOU; Q. ZHANG; E. YANG; R. MACDONALD; J. KANG. *Vanderbilt Univ. Med. Ctr., Third Military Med. Univ., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr.*
- 3:00 B50 **783.15** A critical role for the ADHD associated protein, Cadherin 13, in inhibitory synapse formation and function. M. M. SELTEN*; O. RIVERO; S. M. KOLK; K. LESCH; N. NADIF KASRI. *Dept. of Cognitive Neurosciences, Donders Ins, Div. of Mol. Psychiatry, Lab. of Translational Neuroscience, ADHD Clin. Res. Network, Dept. of Psychiatry, Psychosomatics and Psychotherapy, Univ. of Würzburg, Dept. of Mol. Animal Physiology, Donders Inst. for Brain, Cognition, and Behaviour, Nijmegen Ctr. for Mol. Life Sciences, Radboud Univ. Nijmegen.*
- 4:00 B51 **783.16** Chronic fluoxetine treatment alters the structure, connectivity and plasticity of cortical interneurons. J. S. NACHER*; M. PEREZ-RANDO; R. GUIRADO; E. CASTREN. *Univ. Valencia Esq4618001d, Univ. Valencia, Univ. of Helsinki.*
- 3:00 B54 **784.03** The inverse agonistic effect of Rimonabant is not mediated by CB1, GABAB, opioid and D2 dopamine receptors. A. PORCU; A. CASTI; F. SANNA; G. FLORIS; M. P. MASCI; P. FOLLESA; M. MELIS; G. L. GESSA; M. CASTELLI*. *Univ. of Cagliari, Univ. of Cagliari, CNR- Inst. of Neurosci., Dept. of Biomed. Sciences, Div. of Neurosci. and Clin. Pharmacol.*
- 4:00 B55 **784.04** K63-linked ubiquitination of GABAB1 sorts GABAB receptors to lysosomal degradation. K. ZEMOURA*; T. CLAUDIA; B. DIETMAR. *Inst. of Pharmacol. and Toxicology.*
- 1:00 B56 **784.05** ● Effect of GABA_B positive allosteric modulators in the DBA/2J mouse audiogenic seizure test: comparison to baclofen and utility as a pharmacodynamic screening model. J. W. BROWN*; S. TURNER; V. NIMMRICH; L. E. RUETER; E. VAN DER KAM; M. ZHANG. *Abbvie, Abbvie.*
- 2:00 B57 **784.06** ▲ Colocalization of interneuron markers with proteins involved in GABA_B receptor mediated calcium current enhancement in neonatal hippocampus. D. P. VANDERHOEF; M. MYNLIEFF*. *Marquette Univ.*
- 3:00 B58 **784.07** Evaluation of multiple doses of GABA(B) ligands on learning and memory. C. F. HEANEY*; M. M. BOLTON; A. S. MURTISHAW; M. A. LANGHARDT; J. W. KINNEY. *Univ. of Nevada, Las Vegas.*
- 4:00 B59 **784.08** ● 5HT6 receptor distribution in rat brain using agonist-induced FOS and antireceptor antibody immunocytochemistry. S. STEWART; L. DAILEY; A. HEFFERNAN; A. MITZEY; M. S. BROWNFIELD*. *Univ. Wisconsin, Univ. of Minnesota.*
- 1:00 B60 **784.09** Interleukin 6 attenuates serotonin 2A receptor signaling through the JAK-STAT pathway. J. J. DONEGAN*; T. A. CHAVERA; M. S. PATTON; K. A. BERG; D. A. MORILAK; M. GIROTTI. *Univ. of Texas Hlth. Sci. Ctr. At San Antonio, Univ. of Texas Hlth. Sci. Ctr. At San Antonio.*
- 2:00 C1 **784.10** Co-expression of 5-HT7 and 5-HT2 receptors in molluscan muscle. D. R. MCPHERSON*; J. A. LOVETT. *SUNY-Geneseo.*
- 3:00 C2 **784.11** Localization and function of 5-HT6 receptor mutants to neuronal primary cilia in striatum. M. BRODSKY*; A. LESIAK; K. GARCIA NAKATA; J. SULLIVAN; J. NEUMAIER. *Univ. of Washington.*
- 4:00 C3 **784.12** ▲ New serotonergic pathway regulating neuronal morphology and functions via adhesion molecule L1. D. GUSEVA*; Y. SCHILL; M. BIJATA; J. WLODARCZYK; E. PONIMASKIN. *Hannover Med. Sch., Nenski Inst.*

POSTER

784. Serotonin and GABAB Gpcrs

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

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 B52 **784.01** Somatostatin neurons silence excitatory connections through presynaptic GABA_B receptors. J. URBAN CIECKO*; A. L. BARTH. *Carnegie Mellon Univ., CMU.*
- 2:00 B53 **784.02** KCTD12-induced desensitization of G-protein coupled receptor responses under physiological and pathophysiological conditions. B. BETTLER*; R. TURECEK; J. SCHWENK; T. FRITZIUS; K. IVANKOVA; G. ZOLLES; L. ADELFINER; V. JACQUIER; V. BESSEYRIAS; M. GASSMANN; U. SCHULTE; B. FAKLER. *Univ. Basel, Inst. of Physiol.*

POSTER

785. Spine Dynamics

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

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 C4 **785.01** Ryanodine receptor activation induces long-term plasticity of spine calcium dynamics. F. W. JOHENNING*; A. THEIS; U. PANNASCH; M. RÜCKL; S. RÜDIGER; D. SCHMITZ. *Charité Univ. Med. Berlin, Humboldt Univ.*
- 2:00 C5 **785.02** Heterosynaptic structural plasticity on local dendritic segments of hippocampal CA1 neurons. L. K. PARAJULI*; W. OH; K. ZITO. *Univ. of California, Davis.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 C6 **785.03** Wnt5a modulates the postsynaptic density of dendritic spines and the distribution of synaptic mitochondria in hippocampal neurons. M. S. ARRÁZOLA*; D. ORDENES; N. C. INESTROSA. *Pontificia Univ. Católica De Chile*.
- 4:00 C7 **785.04** The role of metabotropic and ionotropic glutamate receptor signaling in activity-dependent spine shrinkage. I. S. STEIN*; W. OH; K. ZITO. *UC Davis, Max Planck Florida Inst.*
- 1:00 C8 **785.05** Modeling spine dynamics in recurrently connected spiking networks. J. HUMBLE*; H. KASAI; T. TOYOIZUMI. *RIKEN Brain Sci. Inst., The Univ. of Tokyo*.
- 2:00 C9 **785.06** Myosin II ATPase activity mediates the biphasic movement of stable F-actin bound by drebrin A between dendritic spines and the parent dendrite in long-term potentiation. T. SHIRAO; T. MIZUI; N. KOGANEZAWA; H. SHIMIZU; H. YASUDA*; Y. SEKINO. *Gunma Univ. Grad. Sch. Med., NIH*.
- 3:00 C10 **785.07** The dynamics of interneuronal spines are regulated by N-methyl-D-aspartate receptors. M. PEREZ-RANDO*; E. CASTILLO-GOMEZ; R. GUIRADO; H. CARCELLER; J. NACHER. *Univ. of Valencia, Univ. of Helsinki*.
- 4:00 C11 **785.08** A novel RhoGAP, ARHGAP12, interacting with F-BAR protein CIP4 regulates spine morphology and AMPA receptor function. W. BA*; J. VAN DER RAADT; M. M. SELTEN; L. LI; M. BENEVENTO; A. R. OUDAKKER; H. VAN BOKHOVEN; M. J. COURTNEY; N. NADIF KASRI. *Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr., Mol. Signalling Laboratory, Dept. of Neurobiology, A.I. Virtanen Institute, Univ. of Eastern Finland*.
- 1:00 C12 **785.09** NOS1AP regulates synapse formation and synaptic strength in rat cortical neurons. K. HERNANDEZ*; P. SWIATKOWSKI; N. R. DUDZINSKI; L. M. BRZUSTOWICZ; B. L. FIRESTEIN. *Rutgers Univ., Rutgers Univ.*
- 2:00 C13 **785.10** Juvenile rats exposed to environmental enrichment show increased densities of long-thin and filopodia spines, clustering of GluA2 and PSD-95 in the hippocampus and enhanced spatial learning. A. AUBRY*; A. ALLIGER; D. MUSHEYEV; J. AVILA; P. SERRANO. *CUNY Grad. Ctr., Hunter Col.*
- 3:00 C14 **785.11** • Comparison of axospinous synapses onto glutamatergic and GABAergic forebrain neurons. R. J. WEINBERG*; E. KIM; A. C. BURETTE. *Univ. North Carolina, KAIST, Univ. North Carolina*.
- 4:00 C15 **785.12** Aberrant spine pruning in adolescence in a model of schizophrenia and related disorders. S. K. BARODIA*; J. R. MOORE; S. KIM; A. SAWA; H. JAAROPELED. *Johns Hopkins Univ.*
- 1:00 C16 **785.13** • Dendritic spine neck resistance measurements using voltage sensitive dyes. M. POPOVIC; N. CARNEVALE; B. ROZSA; D. ZECEVIC*. *Yale Univ., Inst. of Exptl. Medicine, Hungarian Acad. of Sci., Yale Univ. Sch. Med.*
- 2:00 C17 **785.14** Morphological and Functional analysis of glutamatergic synapses in the dopamine neurons of the Substantia nigra pars compacta. M. JANG*; M. PARK. *Sch. of Medicine, Sungkyunkwan Univ.*
- 3:00 C18 **785.15** Repeated ketamine exposure during early development impairs learning-dependent dendritic spine plasticity in adulthood. L. HUANG; G. YANG*. *New York Univ. Sch. of Med.*
- 4:00 C19 **785.16** Very long-term memories may be stored in the pattern of holes in the perineuronal net. V. LEV-RAM*; E. A. BUSHONG; J. N. SAVAS; D. C. PRASHER; S. F. PALIDA; J. R. YATES, 3rd; M. H. ELLISMAN; R. Y. TSJEN. *UCSD Sch. Med., UCSD Sch. Med., The Scripps Res. Inst., UCSD Sch. Med., UCSD Sch. Med. & HHMI*.
- 1:00 C20 **785.17** Ultrastructural changes in hippocampal synaptic architecture caused by reduced food intake. B. L. RACZ*; R. B. BABITS; T. MAGYAR; D. NOVÁK-HAZAI; P. SÓTONYI. *Szent Istvan Univ.*
- 2:00 C21 **785.18** Impermanence of dendritic spines in live adult CA1 hippocampus. A. ATTARDO*; J. E. FITZGERALD; M. J. SCHNITZER. *Stanford Univ., Howard Hughes Med. Institute, Harvard Univ.*
- 3:00 C22 **785.19** Picomolar beta-amyloid modulates hippocampal synaptic plasticity via inhibitor of apoptosis protein regulation of caspase-3 activity and rho gdp dissociation inhibitor. M. PERO; E. M. RIBE; Y. Y. JEAN; C. M. TROY*. *Columbia Univ. Medl Ctr.*
- 4:00 C23 **785.20** Profilin isoforms as important modulators of structural spine plasticity and memory formation. K. MICHAELSEN-PREUSSE; S. ZESSIN; F. SCHARKOWSKI; J. FEUGE; M. H. KORTE*. *TU Braunschweig, Tu Braunschweig*.
- 1:00 C24 **785.21** Mechanism of Nogo-A action in regulating functional and anatomical synaptic plasticity. M. ZAGREBELSKY*; Y. KELLNER; S. KRAMER; M. E. SCHWAB; M. KORTE. *TU Braunschweig, Brain Res. Inst. and Dept. of Hlth. Sci. and Technol.*
- 2:00 C25 **785.22** The role of alpha2-chimaerin in dendrite morphogenesis and synaptic plasticity. C. VALDEZ*; A. A. BEG. *Univ. of Michigan*.
- 3:00 C26 **785.23** Regulation of spine architecture by δ -catenin. L. YUAN*; E. SEONG; J. L. BUESCHER; J. ARIKKATH. *Univ. of Nebraska Med. Ctr., Univ. of Nebraska Med. Ctr.*
- 4:00 C27 **785.24** Morphometric analysis of human pyramidal neurons of Brodmann Areas 39 and 40. J. C. ZINN; W. G. M. JANSSEN; J. EVANS; A. D. SHARAN; M. R. SPERLING; K. SIMONYAN; P. R. HOF*; J. H. MORRISON; F. HAMZEI-SICHANI. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai, Thomas Jefferson Univ., Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai*.
- 1:00 C28 **785.25** Involvement of Cadherin 13 in cocaine-related behaviors in mice. J. DRGONOVA*; D. WALTHER; O. RIVERO MARTIN; B. RANSCHT; K. LESCH; G. R. UHL. *Natl. Inst. Drug Abuse, NIH, Univ. of Würzburg, Sanford/ Burnham Med. Res. Inst.*
- 2:00 C29 **785.26** Role of Cadherin-13 in interneuron function and hippocampal-related behavior. O. RIVERO*; S. SICH; S. POPP; L. BACMEISTER; D. NAGEL; C. GROSS; E. AMENDOLA; K. LESCH. *Universitätsklinikum Würzburg, EMBL Monterotondo*.
- 3:00 C30 **785.27** NrCAM regulates semaphorin 3f-induced spine morphogenesis in developing neocortex. V. MOHAN; G. P. DEMYANENKO; X. ZHANG; L. BRENNAMAN; K. E. S. DHARBAL; T. S. TRAN; P. B. MANIS; P. F. MANESS*. *UNC Sch. of Med., Univ. of North Carolina, Rutgers Univ., UNC Sch. of Med.*

4:00 C31 **785.28** Cadherin 13 (cdh13) gene knockout affects ethanol consumption. F. S. HALL*; S. O. GOLUB; A. M. MORROW; J. DRGONOVA; B. RANSCHT; G. R. UHL. *Natl. Inst. On Drug Abuse, IRP/NIH/DHHS, Sanford Burnham Med. Res. Inst.*

POSTER

786. Synaptic Plasticity: Other

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

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 C32 **786.01** cAMP signaling is involved in activity-dependent reduction of calcium responses in *Drosophila* mushroom body. S. SATO*; K. UENO; T. SAKAI. *Tokyo Metropolitan Univ., Tokyo Metropolitan Inst. of Med. Sci.*
- 2:00 C33 **786.02** *Drosophila* WDR40A is critical for synaptic growth and neurotransmitter release at the neuromuscular junction. L. A. PATRON*; M. IMAD; K. NAGATOMO; K. ZINSMAYER. *The Univ. of Arizona.*
- 3:00 C34 **786.03** Protocadherin 17 (Pcdh17), a common target of MEF2 and FMRP, is required for MEF2-dependent synapse pruning. C. F. HALE*; C. CHANG; K. Y. HUNG; J. C. DARNELL; K. M. HUBER; C. W. COWAN. *Harvard Med. School, McLean Hosp., UT-Southwestern Med. Ctr. at Dallas, The Rockefeller Univ.*
- 4:00 C35 **786.04** EZH2 regulates learning and memory via controlling the synaptogenesis in mouse brain. M. ZHANG*; C. LIU; S. XXX; Z. JIAO; F. ZHOU. *Johns Hopkins Univ., The Johns Hopkins Univ. Sch. of Med.*
- 1:00 C36 **786.05** The effect of sustained vs. transient epochs of irregular conditioning on inhibitory synaptic plasticity in visual cortex. G. DAVIS*; D. KALIKULOV; Q. FISCHER, Ph.D.; M. FRIEDLANDER. *Virginia Tech. Carilion Sch. of Med., Virginia Tech. Carilion Res. Inst.*
- 2:00 C37 **786.06** *In vivo* morphine exposure generates silent synapses. N. M. GRAZIANE*; Y. HUANG; Y. WANG; O. SCHLUETER; Y. DONG. *Univ. of Pittsburgh, Univ. of Pittsburgh, The Univ. of British Columbia, Göttingen Grad. Sch. for Neurosciences, Biophysics, and Mol. Biosci.*
- 3:00 C38 **786.07** Chronic administration of the antidepressant fluoxetine predisposes hippocampal network to elevated plasticity. D. POPOVA*; T. TAIRA; E. CASTREN. *Neurosci. Ctr., Helsinki University, Fac. of Vet. Med., Neurosci. center.*
- 4:00 C39 **786.08** Exposure to low dose pesticides precipitates synaptic plasticity alterations in mice heterozygous for the Parkinson's gene PINK1. G. MARTELLA*; G. MADEO; M. MALTESE; V. VANNI; E. FERRARO; E. M. VALENTE; T. SCHRINZI; L. BONANNI; J. SHEN; G. MANDOLESI; P. BONSI; A. PISANI. *Univ. of Rome Tor Vergata, IRCCS Santa Lucia Fndn., Univ. of Rome Tor Vergata, Univ. of Tor Vergata, IRCCS Santa Lucia Fndn., 4. Istituto di Ricovero e Cura a Carattere Scientifico, Casa Sollievo della Sofferenza, Mendel Laboratory, San Giovanni Rotondo, Univ. G.d'Annunzio, Harvard Med. School, Boston, Massachusetts, USA., Univ. of Rome Tor Vergata, and IRCCS Santa Lucia.*

- 1:00 C40 **786.09** Effects of FK506 on kainic acid-induced neural injury in hippocampal slice culture. M. TANIOKA*; K. LEE; U. KIM; B. LEE. *Yonsei University, Grad. Sch. Dept. of Med. Sci., Brain Korea 21 PLUS Project for Med. Sci., Dongseo Univ.*
- 2:00 C41 **786.10** Effect of interstimulus interval regularity and mild traumatic brain injury (mTBI) on synaptic plasticity outcomes in adult rat visual cortex. Q. S. FISCHER*; D. KALIKULOV; M. J. FRIEDLANDER. *Virginia Tech. Carilion Res. Inst.*
- 3:00 C42 **786.11** Novel form of depolarization-induced depression of GABAergic IPSCs in the Purkinje cells. H. SATOH*; F. SAITOW; H. SUZUKI. *Nippon Med. Sch., Japan Sci. and Technol. Agency, CREST.*
- 4:00 C43 **786.12** Homogenous thalamic input across layer 5 corticospinal subpopulations becomes biased toward task-relevant neurons following motor learning. J. BIANE*; J. M. CONNER; M. SCANZIANI; M. H. TUSZYNSKI. *UC San Diego, UC San Diego, VA Med. Ctr.*
- 1:00 C44 **786.13** Expression of endocannabinoid biosynthesizing enzyme mRNA and protein in hippocampal stratum oriens neurons. L. N. FRIEND*; C. B. MERRILL; R. C. WILLIAMSON; S. T. NEWTON; Z. H. HOPKINS; J. G. EDWARDS. *Brigham Young Univ.*
- 2:00 C45 **786.14** Ventral tegmental area dopamine and GABA neurons: Physiological properties and expression of mRNA for endocannabinoid biosynthetic enzymes and type I mGluRs. C. B. MERRILL*; L. N. FRIEND; S. T. NEWTON; Z. H. HOPKINS; J. G. EDWARDS. *Brigham Young Univ.*
- 3:00 C46 **786.15** Endocannabinoids mediate autocrine inhibition of hippocampal principal cells. V. STEMPER*; A. THEIS; U. PANNASCH; A. WOJTALLA; A. ZIMMER; D. SCHMITZ. *Charité Berlin, Univ. of Bonn.*
- 4:00 C47 **786.16** STED microscopy of filamentous actin in the visual cortex of adult mice. K. I. WILLIG*; H. STEFFENS; W. WEGNER; C. GREGOR; S. W. HELL. *Max-Planck-Institute for Biophysical Chem., Ctr. for Nanoscale Microscopy and Mol. Physiol. of the Brain.*
- 1:00 C48 **786.17** Disrupting PSD-95-mediated protein-protein interaction in neonatal rats impairs hippocampal neuronal function, learning, and memory. O. FURMANSKI*; C. LI; Y. YANG; Y. SATO; Q. CHEN; P. TANG; F. TAO; R. A. JOHNS. *Johns Hopkins Univ. Sch. of Med., Affiliated Anti-Cancer Hosp. of Zhengzhou Univ., Johns Hopkins Univ. Sch. of Med., Asahikasei Corp., Univ. of Pittsburgh Sch. of Med.*
- 2:00 C49 **786.18** Modulation of heterosynaptic plasticity by adenosine receptors in the rat neocortex *in vitro*. N. M. BANNON*; M. CHISTYAKOVA; M. VOLGUSHEV. *Univ. of Connecticut.*

POSTER

787. Oscillations: Connectivity

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

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 C50 **787.01** Mechanisms underlying thalamocortical phase-amplitude switches due to the anaesthetic propofol. A. SOPLATA*; S. LEE; S. CHING; E. BROWN; P. PURDON; N. KOPELL. *Boston Univ., Brown Univ., Washington Univ. in St. Louis, MIT, Harvard Med. Sch., Massachusetts Gen. Hosp., Boston Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 C51 **787.02** Layered architecture shapes context-dependent response and input integration of a cortical circuit. M. HELMER*; X. CHEN; W. WEI; F. WOLF; D. BATTAGLIA. *BCCN Goettingen, Max Planck Inst. for Dynamics and Self-Organization, Brandeis Univ., New York Univ., Inst. de Neurosciences des Systèmes, Aix-Marseille Univ.*
- 3:00 C52 **787.03** Dynamics of cortical circuits lead to switching resting state functional connectivity. V. K. JIRSA*; E. HANSEN; A. SPIEGLER; G. DECO; D. BATTAGLIA. *Inst. De Neurosciences Des Systemes, Univ. Pompeu Fabra, Bernstein Ctr. for Computat. Neurosci.*
- 4:00 C53 **787.04** Spatio-temporal dynamics of low frequency oscillations in resting-state fMRI. D. MASTROVITO*; S. HANSON; C. HANSON. *Rutgers Univ.*
- 1:00 C54 **787.05** Structural architecture supports local and global functional interactions in healthy aging. J. ZIMMERMANN*; R. MCINTOSH; P. RITTER; S. ROTHMEIER; M. SCHIRNER. *Rotman Res. Inst., Dept. Neurology, Charité - Univ. Med.*
- 2:00 C55 **787.06** Brain state-dependent liquid information processing. D. BATTAGLIA*; P. QUILICHINI; C. BERNARD. *INS, Univ. Aix-Marseille, Bernstein Ctr. for Computat. Neurosci.*
- 3:00 C56 **787.07** Functional connectivity of the claustrum during resting wakefulness. D. H. RESER*; S. C. KOLBE. *Monash Univ., Univ. of Melbourne.*
- 4:00 C57 **787.08** Targeted enhancement of hippocampal brain networks and associative memory with transcranial magnetic stimulation. J. X. WANG*; K. L. BRANDSTATT; E. Z. GROSS; A. J. RYALS; L. M. ROGERS; M. DOKUCU; M. S. HERMILLER; J. L. VOSS. *Northwestern Univ., Northwestern Univ., Wayne State Univ., Rehabil. Inst. of Chicago, Northwestern Univ.*
- 1:00 C58 **787.09** Origin of resting state slow spontaneous neuronal oscillations in brain networks. G. P. KRISHNAN*; O. GONZALEZ; M. BAZHENOV. *Univ. of California, Riverside, Univ. of California.*
- 2:00 C59 **787.10** Correlated variability in a network model of primary visual cortex. R. MEYER*; K. OBERMAYER. *Technische Univ. Berlin, Bernstein Ctr. for Computat. Neurosci. Berlin.*
- 3:00 C60 **787.11** Are spontaneous oscillatory brain dynamics impacted by the gastric slow-wave? An investigation of cerebro-gastric coupling. C. G. RICHTER*; M. BABO-REBELO; A. DUCORPS; C. TALLON-BAUDRY. *L'Ecole Normale Supérieure, CENIR - Ctr. de Neuroimagerie de Recherche.*
- 4:00 C61 **787.12** Extracellular field contributions to a globally conscious brain. E. TOGNOLI*; J. KELSO. *Ctr. for Complex Systems & Brai, Florida Atlantic Univ., Univ. of Ulster.*

POSTER

788. Alzheimer's disease: Tau Biochemistry

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 C62 **788.01** ● Investigating the effects of anesthetic dexmedetomidine on tau phosphorylation. R. C. CHANG*; C. HUANG; Y. S. HO; O. T. W. NG; M. G. IRWIN; G. T. C. WONG. *Lab. of Neurodegenerative Diseases, LKS Fac. of Medicine, Univ. of Hong Kong, LKS Fac. of Medicine, The Univ. of Hong Kong, The Univ. of Hong Kong, LKS Fac. of Medicine, The Univ. of Hong Kong, Macau Univ. of Sci. and Technol.*
- 2:00 C63 **788.02** Tau accumulation is regulated by RNA translation: A role for stress granules in tauopathies. D. APICCO*; T. VANDERWEYDE; P. ASH; B. WOLOZIN. *Boston Univ. Sch. of Med.*
- 3:00 C64 **788.03** Neuron-to-neuron propagation of high-molecular-weight tau species derived from tau-transgenic mouse and human Alzheimer's disease brain. S. TAKEDA*; S. WEGMANN; H. CHO; A. D. ROE; C. COMMINS; D. IRIMIA; B. T. HYMAN. *Massachusetts Gen. Hosp., Massachusetts Gen. Hospital, Harvard Med. Sch.*
- 4:00 C65 **788.04** Site-specific phosphorylations of tau are associated with cell division in SH-SY5Y cells. A mechanism of DNA protection? P. R. FLORES*; V. IBARRA-BRACAMONTES; N. ZARCO; A. NAVARRETE; A. ALONSO; R. MENA; B. FLORAN-GARDUÑO; J. SEGOVIA-VILA; J. LUNA-MUÑOZ. *Ctr. De Investigación Y De Estudios Avanzados Del IPN, Col. of Staten Island, Ctr. De Investigación y de Estudios Avanzados Del IPN.*
- 1:00 C66 **788.05** Overexpression of tau protein induces aberrant plasma membrane blebbing in glial cells through actin cytoskeleton remodeling. F. GARCIA-SIERRA*; F. M. TORRES-CRUZ; F. RODRIGUEZ-CRUZ; J. AVILA; G. BASURTO-ISLAS. *CINVESTAV- IPN, Ctr. de Biología Mol. "Severo Ochoa" Univ. Autónoma de Madrid, Univ. Autónoma Metropolitana.*
- 2:00 C67 **788.06** ● Model of tau pathology in induced pluripotent stem cell-derived human neurons. M. USENOVIC*; S. NIROOMAND; M. COSDEN; B. VOLETI; J. J. RINGER; S. PARMENTIER-BATTEUR. *Merck & Co.*
- 3:00 C68 **788.07** Elucidating the role of pathogenic Tau in neurodegeneration using neurons generated from patient-derived stem cells. D. PAQUET*; A. CHEN; A. SPROUL; S. JACOB; A. GREGG; D. KWART; K. OLSEN; O. OLSEN; S. NOGGLE; M. TESSIER-LAVIGNE. *The Rockefeller Univ., The New York Stem Cell Fndn. Res. Inst.*
- 4:00 C69 **788.08** ▲ Optimization and utilization of hybrid culture between rat and fly primary neurons. K. L. KRAUS; R. A. COLVIN*; C. QIAN; D. LEE. *Ohio Univ.*
- 1:00 C70 **788.09** Disruption of intraneuronal tau by extracellular tau oligomers containing individual or mixed tau isoforms. E. M. SWANSON; L. MCMAHON; S. SOM; G. S. BLOOM*. *Univ. of Virginia.*
- 2:00 C71 **788.10** Differential oligomer formation and phosphatase-activating domain exposure in tau isoforms. K. K. COX*; D. S. HIMMELSTEIN; N. M. KANAAN. *Michigan State Univ., Northwestern Univ.*

- 3:00 C72 **788.11** Tau oligomer formation and phosphatase-activating domain exposure in disease-related forms of tau. C. T. TIERNAN*; D. HIMMELSTEIN; S. E. COUNTS; N. M. KANAAN. *Michigan State Univ., Northwestern Univ., Michigan State Univ.*
- 4:00 D1 **788.12** Characterization of tau aggregation induced by arachidonic acid and eicosanoids. B. COMBS*; A. S. ALBERTS; N. M. KANAAN. *Michigan State Univ., Van Andel Inst.*
- 1:00 D2 **788.13** Identification and characterization of extracellular tau. H. YOSHIDA*. *Natl. Ctr. For Geriatrics and Gerontology.*
- 2:00 D3 **788.14** Tau pathology regulated by membrane lipid. A. SUMIOKA*; A. GOTO; Y. SOEDA; A. TAKASHIMA. *Natl. Ctr. for Geriatrics and Gerontology.*
- 3:00 D4 **788.15** Temporal sequence of TBI-dependent post translational modifications of Tau in a mouse model of concussion. R. C. PELOT*; J. REED; G. CRYNEN; C. BACHMEIER; J. EVANS; L. ABDULLAH; F. CRAWFORD. *Roskamp Inst., The Open Univ., The Veteran's Admin.*
- 4:00 D5 **788.16** Calorie restriction, age, and genotype modulate the intestinal microbiota in a mouse model of Alzheimer's disease. L. M. COX*; M. J. SCHAFER; S. D. GINSBERG; M. J. BLASER. *NYU Langone Med. Ctr., NYU Langone Med. Ctr., Nathan Kline Inst., NYU Langone Med. Ctr., New York Harbor Dept. of Veterans Affairs Med. Ctr.*
- 1:00 D6 **788.17** ● qPCR analysis of 3-repeat tau (3Rtau) and 4-repeat tau (4Rtau) isoforms in Alzheimer's disease. S. D. GINSBERG*; S. H. LEE; D. J. IRWIN; J. Q. TROJANOWSKI; E. PETKOVA; S. CHE. *Nathan Kline Inst., New York Univ. Langone Med. Ctr., New York Univ. Langone Med. Ctr., Nathan Kline Inst., Univ. of Pennsylvania Sch. of Med., Univ. of Pennsylvania Sch. of Med., Univ. of Pennsylvania Sch. of Med., Nathan Kline Inst., New York Univ. Langone Med. Ctr.*
- 2:00 D7 **788.18** ● Characterization of tau and phosphorylated tau (ptau) in brains from human Alzheimer's disease and tauopathy subjects. S. SANKARANARAYANAN*; L. YANG; N. HOQUE; G. CADELINA; D. BARTEN; C. F. ALBRIGHT; J. B. TOLEDO; K. BRUNDEN; V. M. Y. LEE; J. Q. TROJANOWSKI; M. AHLJANIAN. *Bristol-Myers Squibb, Univ. of Pennsylvania.*
- 3:00 D8 **788.19** Cross-talk between PI3K/AKT/GSK-3 β and PP2A pathways determines tau hyperphosphorylation. F. LIU*; Y. WANG; R. YANG; X. YIN; J. GU; N. JIN; K. IQBAL; C. GONG; C. CHENG. *New York State IBR, Nantong Univ.*
- 4:00 D9 **788.20** Effects of methylene blue and another oxidant on human tau transgenic fly models. S. SHEIK MOHIDEEN; Y. YAMASAKI; Y. OMATA; L. TSUDA; Y. YOSHIIKE*. *NCGG CAMD, Nagoya Univ.*
- 1:00 D10 **788.21** ● Age-dependent changes of beta-amyloid and tau protein in two mouse models of Alzheimer's disease. E. SCHENKER*; G. ROLLIN-JEGO; F. IOP; R. BILLIRAS; J. RIVET; D. FAVALE; V. PASTEAU; S. DIX; C. CZECH; L. OZMEN; J. C. RICHARDSON; A. GOBERT. *Inst. De Recherches Servier, Eli Lilly, Hoffmann-La Roche AG, GlaxoSmithKline R&D.*
- 2:00 D11 **788.22** ● Targeting Tau-SH3 Interactions in Alzheimer's disease. J. COCHRAN*; P. DIGGS; M. NEBANE; T. RUSH; J. YAN; I. PADMALAYAM; L. RASMUSSEN; E. CAPRIOTTI; B. BOSTWICK; L. WHITE; J. MADDY; M. SUTO; E. D. ROBERSON. *Univ. of Alabama at Birmingham, Southern Res. Inst., Univ. of Alabama at Birmingham.*

- 3:00 D12 **788.23** Tau: an interactor and substrate for protein tyrosine phosphatase SHP-2. Y. KIM; M. B. FRANCIS; C. J. LEUGERS; G. LEE*. *Univ. Iowa.*
- 4:00 D13 **788.24** Critical role of death-associated protein kinase 1 in regulating tau protein accumulation in Alzheimer's disease. T. LEE*; M. YOU; B. KIM. *Harvard Med. School/BIDMC.*

POSTER

789. Alzheimer's disease: APP Abeta In Vivo Models II

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 D14 **789.01** Removal of tau oligomers by immunotherapy decreases A β 56* and improves cognition in an AD mouse model. D. L. CASTILLO*; M. J. GUERRERO-MUÑOZ; U. SENGUPTA; C. HERNANDEZ; K. DINELEY; R. KAYED. *UTMB, UTMB.*
- 2:00 D15 **789.02** Bexarotene reduces intraneuronal APP/A β and neuronal loss in 5XFAD mice. M. HOLLEY*; T. JAY; B. CASALI; T. MALM. *Case Western Reserve Univ.*
- 3:00 D16 **789.03** Specific alterations of tau phosphorylation and neuronal signaling induced by the amyloid- β oligomer A β 56. F. AMAR*; M. A. SHERMAN; T. J. RUSH; M. LARSON; J. A. SCHNEIDER; D. A. BENNETT; K. H. ASHE; A. BUISSON; S. E. LESNE. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. Joseph Fourier- Site Santé, Rush Univ. Med. Ctr., VA Med. Ctr.*
- 4:00 D17 **789.04** Chronic exposition to ozone produces β amyloid 1-42 accumulation in mitochondria of rat hippocampal neurons. L. F. HERNANDEZ*; E. RODRÍGUEZ MARTÍNEZ; S. RIVAS-ARANCIBIA. *Universidad Nacional Autonoma De Mexico.*
- 1:00 D18 **789.05** Gsk antisense improves learning and memory and reduces active gsk in samp8 mice. S. A. FARR*; V. B. KUMAR; K. WITT; K. E. SANDOVAL; J. E. MORLEY. *St. Louis University/VA Med., SIUE, St. Louis Univ. Sch. of Med.*
- 2:00 D19 **789.06** Comparative study of biochemical markers in cerebrospinal fluid in dog after intracerebroventricular injection of streptozotocin. G. KIM*; H. OH; M. KIM; Y. JO; J. CHOI; B. LEE. *Seoul Natl. Univ.*
- 3:00 D20 **789.07** The effects of agmatine on Alzheimer's disease induced by brain insulin resistance. S. KANG; J. SONG*; W. LEE; K. PARK; J. LEE. *Yonsei Univ. Col. of Med., BK21 Plus Project for Med. Science, and Brain Res. Inst.*
- 4:00 D21 **789.08** Intra-cerebro-ventricular erythropoietin reverses morphological and cognitive deterioration in a streptozocin-induced Alzheimer's disease rat model. G. O. PEKER*; V. SOLMAZ; T. CAVUSOGLU; G. YIGITTURK; O. ERBAS. *Ege Univ. Fac. of Med., Ege Univ. Fac. of Med., Ege Univ. Fac. of Med., Osmangazipasa Univ. Fac. of Med.*
- 1:00 D22 **789.09** Interactive effects of high fat diet and testosterone on neuroinflammation and Alzheimer's-related pathways. V. A. MOSER*; A. JAYARAMAN; J. LEE; C. J. PIKE. *USC.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 D23 **789.10** *In vivo* imaging of smooth muscle cell loss during the progression of cerebral amyloid angiopathy. M. ARBEL-ORNATH; A. KIM; J. RAMOS-RODRIGUEZ; L. ZHAO; M. GARCIA-ALLOZA; S. M. GREENBERG; M. P. FROSCH; B. J. BACSKAI*. *Mass Gen. Hosp., Inst. of Biomolecules (INBIO), Univ. of Cadiz.*
- 3:00 D24 **789.11** Comparative genome-wide analysis of RXR binding and expression profiling in Bexarotene treated APOE4 mice. D. GEORGIEV*; A. MOUNIER; K. NAM; N. F. FITZ; A. A. CRONICAN; I. LEFTEROV; R. KOLDAMOVA. *Univ. of Pittsburgh.*
- 4:00 D25 **789.12** Chronic sucrose intake is related with early cognitive impairments in 3xTg-AD and non transgenic mice. K. R. GUZMAN-RAMOS*; L. AYALA-GUERRERO; P. GARCIA-DELATORRE; F. BERMUDEZ-RATTONI; G. PACHECO-LOPEZ. *Inst. de Fisiologia Celular UNAM, Univ. Autonoma Metropolitana, Inst. Mexicano del Seguro Social.*
- 1:00 D26 **789.13** Learning and memory is largely intact in an idiopathic rat model of Alzheimer's disease that pairs A β injections with either stress or cholinergic depletions. S. H. DEIBEL*; N. S. HONG; R. J. KEELEY; R. J. BALOG; C. M. BYE; S. MACINNIS; S. M. HIMMLER; R. J. MCDONALD. *Univ. of Lethbridge.*
- 2:00 D27 **789.14** Using microimmunoelectrodes to study rapid mechanisms of A β clearance from the brain interstitial fluid of mice. C. M. YUEDE*; C. LI; J. R. CIRRITO. *Washington Univ., Hope Ctr. for Neurolog. Disorders, Knight Alzheimer's Dis. Res. Ctr., Florida Intl. Univ.*
- 3:00 D28 **789.15** ▲ Restoration of cognitive function in the triple transgenic mouse model of Alzheimer's diseases by the LXR agonists GW3965: Potential molecular mechanism. A. G. SANDOVAL HERNANDEZ*, SR; G. P. CARDONA-GÓMEZ; G. ARBOLEDA. *Inst. De Genetica - Univ. Nacional Sede Bogota, Area de Neurobiología Celular y Molecular. Grupo de Neurociencias de Antioquia. Univ. de.*
- 4:00 D29 **789.16** Rat P3 ERP in behavioral chains as a function of cue duration, inter-event interval, and predictability of reinforcement. W. D. KLIPEC*; A. PAJSER; R. LEWIS; T. GRAY; K. ELDER. *Drake Univ., Drake Univ.*
- 1:00 D30 **789.17** NMR analysis of cerebrospinal fluid: Animal model of Alzheimer disease. E. MUGANTSEVA*; S. PASKEVICH; M. MOLCHANOV; M. TIMCHENKO. *Inst. of Theoretical and Exptl. Biophysics RAS.*
- 2:00 D31 **789.18** Allopregnanolone rescues rotenone induced cognitive impairment in mice with apoe4 domain interaction. J. WANG*; X. HOU; S. ADEOSUN; Q. ZHANG; B. ZHENG. *Univ. Mississippi Med. Cent.*
- 3:00 D32 **789.19** ● Adult mesenchymal stem cells have a potential to lower cerebral Abeta amyloidosis in Alzheimer's disease mouse model. T. BOLMONT*; A. LUKASHEV; T. LASSER. *EPFL STI IMT LOB, stemedica Int.*
- 4:00 D33 **789.20** Exploiting the pathogenic inter-relationship between TBI and AD in mouse models using proteomic and lipidomic technology. J. O. OJO*; J. M. REED; J. EVANS; G. CRYNEN; L. ABDULLAH; M. MULLAN; F. CRAWFORD. *The Roskamp Inst., James A Haley Veterans' Hosp.*
- 1:00 D34 **789.21** ● The galantamine prodrug, Memogain®, reverses deficits in hippocampal neurogenesis associated with the loss of basal forebrain cholinergic neurons. J. M. VAN KAMPEN*; D. G. KAY; A. MAELICKE. *Neurodyn Inc., Univ. of Prince Edward Island.*
- 2:00 D35 **789.22** Involvement of DNA polymerase beta in the regulation of neurogenesis in aging and Alzheimer's disease. M. M. MISIAK*; P. SYKORA; D. CROTEAU; V. A. BOHR; M. P. MATTSON. *NIH/National Inst. On Aging, NIH/National Inst. on Aging.*
- 3:00 D36 **789.23** Can the d-galactose administration by oral route in Wistar rats mimics the Alzheimer disease? J. BUDNI*; R. PACHECO; S. DA SILVA; M. L. GARCEZ; F. MINA; J. DE MEDEIROS; S. M. FREITAS; D. V. VITTO; S. S. VALVASSORI; G. SCAINI; E. L. STRECK; J. QUEVEDO. *Univ. of Southern Santa Catarina (UNESC), The Univ. of Texas Hlth. Sci. Ctr. at Houston.*
- 4:00 D37 **789.24** Neurotoxicity of alumina nanoparticles in transgenic mice bearing susceptible genes of Alzheimer's disease. Q. ZHANG*; B. ZHENG; R. KAUR; J. WANG. *Univ. of Mississippi Med. Ctr., Sch. of Publ. Health, Shanxi Med. Univ.*

POSTER

790. Modulation of Disease Pathology in Alzheimer's Disease Models

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 D38 **790.01** Why is not everybody getting Alzheimer's? Mammalian blood contains small molecules that prevent A β peptide aggregation. A. V. KRIVOSHEIN*; F. M. MUSTEATA. *Albany Col. of Pharm. & Hlth. Sci., Albany Col. of Pharm. & Hlth. Sci.*
- 2:00 D39 **790.02** Bax-interacting factor 1 (Bif-1) expression is decreased in human Alzheimer's disease and modulates beta-amyloid related neuropathology in APP/PS1 mice. D. B. WANG*; Y. KINOSHITA; C. KINOSHITA; T. UO; B. L. SOPHER; G. A. GARDEN; Y. YANG; C. KEENE; T. BILOUSOVA; K. GYLYS; H. WANG; R. S. MORRISON. *Univ. of Washington, Univ. of Washington, Univ. of Washington, Univ. of Washington, Univ. of California Los Angeles, The Pennsylvania State Univ. Col. of Med.*
- 3:00 D40 **790.03** Activation of the brain's choroid plexus for monocyte trafficking to the CNS mitigates pathology in a mouse model of Alzheimer's disease. N. ROSENZWEIG*; K. BARUCH; A. KERTSER; G. KUNIS; A. DECZKOWSKA; A. SAREL; L. CAHALON; M. SCHWARTZ. *Weizmann Inst. of Sci.*
- 4:00 D41 **790.04** Age-dependent decline in aerobic glycolysis correlates with memory loss in a transgenic mouse model of Alzheimer's disease. R. A. HARRIS*; J. T. NEWINGTON; R. BARTHA; G. TAGLIALATELA; R. C. CUMMING. *Univ. of Western Ontario, Robarts Res. Inst., The Univ. of Texas Med. Br.*
- 1:00 D42 **790.05** Werner mice displays higher oxidative stress, tau phosphorylation and apoptotic/autophagic levels than wild type mice in hippocampus. G. DJIOKENG PAKA; M. PERROTTE; M. ARSENEAULT; M. LEBEL; C. RAMASSAMY*. *INRS-Institut Armand-Frappier, INAF, Ctr. de Recherche sur le Cancer.*

- 2:00 D43 **790.06** ● A derivative of the neurochemical lanthionine ketimine affects autophagy by increasing beclin-1 protein expression in cell culture and in the 3xTg-AD mouse model of Alzheimer's disease. K. HENSLEY*; K. VENKOVA; A. HRISTOV; P. ESLAMI; A. POTESHKINA; M. HARRIS-WHITE. *Univ. of Toledo Med. Ctr., Univ. of Toledo Hlth. Sci. Campus, Greater Los Angeles Veteran's Hosp., Greater Los Angeles Veteran's Hosp., Greater Los Angeles Veteran's Hosp. and UCLA.*
- 3:00 D44 **790.07** Corticotropin-releasing factor receptor antagonism prevents onset of cognitive deficits and impacts amyloid pathology in an Alzheimer's disease mouse model. C. ZHANG*; C. KUO; S. H. MOGAHDAM; S. NUBER; L. MONTE; K. C. RICE; E. MASLIAH; R. A. RISSMAN. *UCSD, Univ. of Oregon, NIH.*
- 4:00 D45 **790.08** Use of the frailty index to compare the stages of aging in the 3x-Tg and 5xFAD mouse models of Alzheimer's disease. R. E. BROWN*; A. A. WONG; K. R. STOVER. *Dept. of Psychology and Neurosci., Dalhousie Univ.*
- 1:00 D46 **790.09** Triptolide preserves cognitive function and reduces neuropathology in a mouse model of Alzheimer's disease. S. CHENG*; K. J. LEBLANC; L. LI. *Univ. of Minnesota.*
- 2:00 D47 **790.10** Increased synaptic sensitivity to A β -oligomer binding after traumatic brain injury in the rat. W. FRANKLIN*; M. PARSLEY; M. MICCI; G. TAGLIALATELA. *UTMB At Galveston, UTMB At Galveston, UTMB At Galveston.*
- 3:00 D48 **790.11** Age-dependent decrease of amyloid β toxicity in dentate gyrus granule cells of mice. J. VON ENGELHARDT*; M. MUELLER. *DKFZ & DZNE.*
- 4:00 D49 **790.12** GPR84 deficiency reduces microgliosis and accelerates dendritic degeneration and cognitive decline in a mouse model of Alzheimer's disease. L. VALLIÈRES; J. AUDOY-RÉMUS; A. DUMAS; M. FILALI; S. LACROIX*; S. RIVEST; M. TREMBLAY. *Univ. Laval.*
- 1:00 D50 **790.13** ACE-overexpressing macrophages exhibit a pro-healing phenotype in murine AD models. A. RENTSENDORJ*; J. SHEYN; D. S. FUCHS; Y. KORONYO; E. Y. HYDEN; K. L. BLACK; S. FUCHS; D. B. TEPLow; K. E. BERNSTEIN; M. KORONYO-HAMAOUI. *Cedars Sinai Med. Ctr., Cedars Sinai Med. Ctr., UCLA, Western Univ., Cedars Sinai Med. Ctr., Cedars Sinai Med. Ctr.*
- 2:00 D51 **790.14** ● *In vivo* effects of pyroglutamate-3 amyloid-beta seeding in APP/PS1 Δ E9 mice. H. CREHAN*; H. CYNIS; J. L. FROST; K. LE; S. SCHILLING; H. DEMUTH; C. A. LEMERE. *Brigham & Women's Hosp., Harvard Med. Sch., Fraunhofer Inst. for Cell Therapy and Immunol., Probiobdrug AG.*
- 3:00 D52 **790.15** ● Oral delivery of a small molecule TNF α inhibitor improves cognition and reduces AD pathology and neuroinflammation in the 3xTg AD mouse. P. GABBITA*; P. ESLAMI; M. JOHNSON; N. KOBRITZ; F. ZEMLAN; S. POTESHKINA; S. VARADARAJAN; J. TURMAN; M. HARRIS-WHITE. *P2D Biosci., VA-GLAHS, P2D Biosci., Univ. of North Carolina-Wilmington.*
- 4:00 D53 **790.16** *Spirulina maxima* reduces the neurotoxicity and improves memory in rats with A β 25-35 in the hippocampus. I. LIMON PEREZ DE LEON*; L. ORTEGA; E. RÁMIREZ; I. MARTÍNEZ; L. PÉREZ-JIMÉNEZ. *Benemerita Univ. Autonoma De Puebla FCQ Lab. Neurofarma, Benemerita Univ. Autonoma De Puebla FCQ.*

- 1:00 D54 **790.17** Hypercholesterolemia aggravates Alzheimer's disease-related pathology in APP/PS1 mice. P. THÉRIAULT*; A. ELALI; S. RIVEST*. *Lab. of Neurosci. Res. Ctr. of CHUQ.*
- 2:00 D55 **790.18** ▲ Restoration of lipoxin A $_4$ signaling reduces Alzheimer's disease-like pathology in the 3xTg-AD mouse model. H. DUNN*; R. R. AGER; D. BAGLIETTO-VARGAS; D. CHENG; M. KITAZAWA; D. H. CRIBBS; R. MEDEIROS. *Univ. of California, Irvine, UC Irvine Inst. for Memory Impairments and Neurolog. Disorders, Univ. of California, Merced.*
- 3:00 D56 **790.19** Chronic LPS-induced inflammation and insulin signaling disruption in a diabetic model of Alzheimer's disease. A. S. MURTISHAW*; C. F. HEANEY; M. M. BOLTON; K. D. BELMONTE; P. M. HAGINS; M. A. LANGHARDT; J. W. KINNEY. *UNLV Neurosci. Doctoral Student, UNLV.*
- 4:00 D57 **790.20** Vascular amyloid and gliovascular dysfunction in a mouse model of Alzheimer's disease. I. KIMBROUGH*; S. ROBEL; E. ROBERSON; H. SONTHEIMER. *Univ. of Alabama At Birmingham, Univ. of Alabama at Birmingham.*
- 1:00 D58 **790.21** ▲ Facilitation of GABAB receptor function modulates chronic inflammatory effects. M. A. LANGHARDT; A. S. MURTISHAW; C. F. HEANEY; M. M. BOLTON; K. C. D. BELMONTE; P. M. HAGINS; J. W. KINNEY*. *Univ. Nevada Las Vegas.*
- 2:00 D59 **790.22** Atherogenic diet-induced accelerated amyloid deposition in PDAPP Tg but not in APP-PS1 Tg mouse model of AD. N. R. BHAT*; K. SAMBAMURTI; M. KINDY; T. ZHU; S. MOHANTY. *Med. Univ. South Carolina.*

POSTER

791. APP Cleavage and Metabolism Processes

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 D60 **791.01** Beta-secretase 1 regulates the lipid profile of ca1 neurons in 3xtg-ad mouse model of Alzheimer's disease. J. G. VILLAMIL*; A. BARRERA OCAMPO; D. PIEDRAHITA; J. CRUZ JIMENEZ; P. CARDONA GOMEZ. *Univ. De Antioquia- Neurosciences Lab.*
- 2:00 D61 **791.02** U1snRNP pathology identified by proteomics analysis of Alzheimer's disease links aberrant alternative splicing to elevated beta-amyloid levels. P. CHEN*; B. BAI; C. M. HALES; Y. M. GOZAL; E. DAMMER; D. M. DUONG; H. D. REES; N. T. SEYFRIED; A. I. LEVEY; J. J. LAH; J. PENG. *St Jude Children Research's Hosp., Emory Univ., Emory Univ.*
- 3:00 D62 **791.03** Vascular BACE1 elevation and cerebral amyloid angiopathy in Chinese subjects: Cholesterol as a stress factor for endothelial A β overproduction. X. YAN*; Z. XUE; X. LUO; X. ZHOU; J. YU; W. GAI; H. CAI; C. MA. *Central South Univ. Xiangya Sch. of Med., Hunan Provincial Tumor Hosp., Flinders Univ. Sch. of Med., Natl. Inst. on Aging, Natl. Inst. of Hlth., Chinese Acad. of Med. Sci. Peking Union Med. Col.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 D63 **791.04** Identification of kallikrein-related peptidase 7 as a novel amyloid- β peptide-degrading protease secreted from astrocytic cells. T. TATEBE*; K. KIDANA; M. AKISHITA; Y. OUCHI; T. IWATSUBO; T. TOMITA. *Grad. Sch. of Pharmaceut. Sciences, The Univ. of Tokyo, Dept. of Geriatric Medicine, Grad. Sch. of Medicine, The Univ. of Tokyo, Toranomon Hosp., Dept. of Neuropathology, Grad. Sch. of Medicine, The Univ. of Tokyo, Dept. of Neuropathology and Neuroscience, Grad. Sch. of Pharmaceut. Sciences, The Univ. of Tokyo.*
- 1:00 D64 **791.05** Pharmacological and safety profiles of JNJ-45261957 a new γ -secretase modulator. F. P. BISCHOFF; F. J. R. ROMBOUTS; D. BERTHELOT; D. OEHLRICH; M. A. J. DE CLEYN; A. I. VELTER; M. SURKYN; S. VAN BRANDT; S. PIETERS; G. MINNE; G. J. MACDONALD; M. DESMIDT; N. BODE; M. H. MERCKEN*; H. BORGHYS; H. J. M. GIJSEN. *Janssen Res. & Develop.*
- 2:00 D65 **791.06** BACE1 neuronal polarized sorting: Role of the clathrin adaptor protein GGA3. S. LOMOIO*; K. R. WALKER; G. TESCO. *TUFTS UNIVERSITY SCHOOL OF MEDICINE.*
- 3:00 D66 **791.07** Heparan sulphate proteoglycan negatively modulates brain A β clearance. C. LIU; J. CIRRITO; X. LI; T. KANEKIYO; Y. YAMAGUCHI; D. HOLTZMAN; G. BU*. *Mayo Clinic, Neurosci. Res., Washington Univ., Burnham Inst. for Med. Res.*
- 4:00 D67 **791.08** Pericyte loss influences Alzheimer-like neurodegeneration cascade in mice. A. P. SAGARE*; R. D. BELL; Z. ZHAO; Q. MA; E. A. WINKLER; A. RAMANATHAN; B. V. ZLOKOVIC. *USC, Univ. of Rochester Med. Ctr.*
- 1:00 D68 **791.09** Roles of Nicastrin, Pen-2, and Aph-1 in gamma secretase catalyzed turnover of the C-terminal fragment of APP. X. XU*; C. HU; T. LI; L. ZENG; M. CUI. *Univ. Tennessee.*
- 2:00 D69 **791.10** • FRET-based assays for the detection of amyloid degrading protease activity. C. KO*; M. ZHU; O. GURINOVICH; F. LI; R. ZHANG; J. ZHONG; V. RAKHMANOVA. *Anaspec, Inc. EGT Group.*
- 3:00 D70 **791.11** Curcumin prevent Alzheimer's pathology through a new mechanism for the inhibition of A β oligomer formation. Y. YANG; Y. ZHANG; S. LI; M. KANG; Z. LIANG; X. HU; W. GAO*; F. LI. *Sun Yat-Sen Univ., Sun Yat-Sen Univ., Drexel Univ. Col. Med.*
- 4:00 D71 **791.12** Role of NMDA in amyloid-beta generation. J. HETTINGER*; J. R. CIRRITO. *Washington Univ., Knight Alzheimer's Dis. Res. Ctr., Hope Ctr. for Neurolog. Disorders.*
- 1:00 D72 **791.13** Human ES cell-derived neurons as a preclinical model system for testing gamma-secretase inhibitors and modulators. D. KARLSSON*; H. MURREY; D. JOHNSON; I. SINGEC. *Pfizer Inc.*
- 2:00 E1 **791.14** Role of deubiquitinating enzyme ubiquitin specific peptidase 8 (USP8) in β -Site amyloid precursor protein cleaving enzyme (BACE1) degradation. E. F. YEATES*; G. TESCO. *Tufts Univ. Sch. of Med.*
- 3:00 E2 **791.15** APP metabolism is modulated by cholesterol in cultured astrocytes. M. E. AVILA-MUÑOZ*; C. ARIAS. *Inst. de Investigaciones Biomédicas, UNAM.*
- 4:00 E3 **791.16** FLICE-inhibitory protein(c-Flip) is a novel substrate of gamma-secretase. L. ZENG*; C. HU; T. LI; F. ZHANG; M. CUI; X. XU. *The Univ. of Tennessee.*
- 1:00 E4 **791.17** • EphrinB2 processing by γ -secretase regulates migration of microglia. N. KEMMERLING*; P. WUNDERLICH; N. HERSCH; B. HOFFMANN; K. GLEBOV; B. D. STROOPER; H. NEUMANN; J. WALTER. *Uniklinik Bonn, Res. Ctr. Jülich GmbH, KULeuven and Flanders Interuniversity Inst. for Biotech. (VIB), Inst. of Reconstructive Neurobio.*
- 2:00 E5 **791.18** Bioorthogonal γ -secretase inhibitor (GSI) photoaffinity probes enable determination of target-engagement and compound localization in live cells and primary rat neurons. H. E. MURREY*; D. S. JOHNSON. *Pfizer, Pfizer.*
- 3:00 E6 **791.19** • A role of Alzheimer's disease associated γ -secretase activity in lipid metabolism and lipid droplet formation. E. GUTIERREZ*; D. LÜTJOHANN; L. KÜRSCHNER; C. THIELE; J. WALTER. *Bonn Univ. Clin., Bonn university clinic, Univ. of Bonn.*
- 4:00 E7 **791.20** PS1/ γ -secretase promotes EphB4-induced angiogenic complexes and angiogenesis via ephrinB2 processing. A. GEORGAKOPOULOS*; N. WARREN; G. VOLOUDAKIS; N. K. ROBAKIS. *Mount Sinai Sch. Med., Mount Sinai Sch. Med., Mount Sinai Sch. of Med.*
- 1:00 E8 **791.21** Presenilin 1 specifically regulates neuronal EGFR expression and signaling. G. VOLOUDAKIS*; J. BRUBAN; J. SHIOI; Y. YOON; Q. HUANG; Z. SHAO; M. AL RAHIM; M. A. GAMA SOSA; A. GEORGAKOPOULOS; N. K. ROBAKIS. *Icahn Sch. of Med. At Mount Sinai, Univ. of Crete.*
- 2:00 E9 **791.22** The anti-diabetic drug metformin reduces BACE protein level by interfering with the MID1-PP2A-mRNP. S. KRAUSS*; M. HETTICH; F. MATTHES; D. RYAN; M. GRIESCHE; S. SCHRÖDER; S. DORN; D. EHNINGER. *DZNE / German Ctr. of Neurodegenerative Dis.*
- 3:00 E10 **791.23** Snapin-mediated bace1 retrograde transport is essential for its degradation in lysosomes and regulation of app processing in neurons. Q. CAI*; X. YE. *Rutgers, The State Univ. of New Jersey.*
- 4:00 E11 **791.24** N-terminally truncated beta-amyloid peptides are generated by alternative beta-secretase cleavage. H. CYNIS*; D. SCHLENZIG; U. ZEITSCHER; M. HARTLAGE-RUEBSAMEN; S. ROSSNER; S. SCHILLING; H. DEMUTH. *Fraunhofer IZI-MWT, Univ. Leipzig.*
- 1:00 E12 **791.25** A β -induced BACE1 elevation in primary neurons and in 5XFAD mouse model of Alzheimer's disease is not dependent on eIF2 α phosphorylation. K. R. SADLEIR*; W. A. EIMER; R. J. KAUFMAN; P. OSTEN; R. VASSAR. *Northwestern Univ., Massachusetts Gen. Hosp., Sanford Burnham Med. Res. Inst., Cold Spring Harbor Lab.*
- 2:00 E13 **791.26** Par3 limits APP and BACE1 convergence by directing their trafficking to two distinct pathways. M. SUN; H. ZHANG*. *Robert Wood Johnson Med. School, Rutgers Univ.*
- 3:00 E14 **791.27** A cell-based high throughput sAPP β screen identifies plasma membrane monoamine transporter as a regulator of BACE1. L. B. MCINTIRE*; J. C. HWANG; G. GANGLI; A. RINDERSPACHER; S. DENG; S. F. LICHTENTHALER; K. I. SEYB; M. A. GLICKSMAN; D. W. LANDRY; T. KIM. *Columbia Univ., Columbia Univ. Med. Ctr., German Ctr. for Neurodegenerative Dis., Brigham and Women's Hosp. and Harvard Med. Sch.*

4:00 E15 **791.28** Endosomal recycling of BACE1 regulated by BAR domain proteins impacts on amyloid- β production. T. TOMITA*; T. MIYAGAWA; T. SASAKI; M. FUKUSHIMA; I. EBINUMA; R. OJIMA; Y. MOROHASHI; S. TSUJI; T. IWATSUBO. *The Univ. of Tokyo, Grad. Sch. Med., The Univ. of Tokyo, Fac. Med., The Univ. of Tokyo, Grad. Sch. Med., The Univ. of Tokyo.*

1:00 F1 **791.29** ● A highly novel role for the clathrin adaptor protein gga3 in anxiety and depression circuitry in the mouse brain. K. R. WALKER*; T. DEEB; J. L. ROYAL; S. LOMOIO; M. E. TOLMAN; S. J. MOSS; G. TESCO. *Alzheimer's Dis. Res. Laboratory, Tufts Univ. Sch. of Med., Tufts- AstraZeneca Lab. for Translational Res., Sackler Sch. Tufts Univ. Sch. of Med.*

2:00 F2 **791.30** ● S-Nitrosylation of insulin degrading enzyme in Alzheimer's disease. M. W. AKHTAR*; S. SANZ-BLASCO; N. DOLATABADI; K. CHON; J. PARKER; R. AMBASUDHAN; W. SOUSSOU; S. R. MCKERCHER; T. NAKAMURA; S. A. LIPTON. *Sanford-Burnham Med. Res. Inst.*

POSTER

792. Alzheimer's Disease: Tauopathy

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

1:00 F3 **792.01** Single molecule tracking of tau reveals fast kiss-and-hop interaction with axonal microtubules in living neurons. D. JANNING; M. IGAEV; F. SÜNDERMANN; J. BRÜHMANN; O. BEUTEL; J. J. HEINISCH; L. BAKOTA; J. PIEHLER; W. JUNGE; R. BRANDT*. *Univ. of Osnabrueck.*

2:00 F4 **792.02** Effects of Metformin on tau pathology in the P301S tau transgenic mouse. E. BARINI; O. ANTICO; L. GASPARINI*. *Inst. Italiano Di Tecnologia.*

3:00 F5 **792.03** Mitigation of tau pathology with CD40 receptor deficiency in a mouse model of neurodegeneration. M. TWEED*; Z. ZAKIROVA; D. PARIS; F. CRAWFORD; M. MULLAN; G. AIT-GHEZALA. *Roskamp Inst., The Open Univ., James A. Haley Veterans' Hosp.*

4:00 F6 **792.04** Increased retinal tau is neurotoxic in experimental glaucoma. M. CHIASSEU*; L. DESTROISMAISONS; C. VANDE VELDE; N. LECLERC; A. DI POLO. *CR-CHUM/University of Montreal.*

1:00 F7 **792.05** ▲ p62/SQSTM1 mediates tau protein degradation through proteasome system. J. IM; S. PARK*; Y. KIM. *Soonchunhyang Univ. Bucheon Hosp.*

2:00 F8 **792.06** Acetylcholine release in the brains of tau-transgenic mice. C. STEIN*; J. KLEIN; M. HOLZER. *Goethe Univ., Univ. of Leipzig.*

3:00 F9 **792.07** Heparan sulfate sulfotransferases and pathologic phosphorylation of tau in Alzheimer's disease-related tau pathology. J. E. SEPULVEDA DIAZ; M. O. OUIDJA; S. CHANTEPIE; M. B. HUYNH; S. B. SOCIAS; J. VILLARES; R. RAISMAN-VOZARI*; D. PAPY-GARCIA. *INSERM U1127/CNRS UMR 7225, Univ. Paris Est-Créteil, Univ. Federal de São Paulo.*

4:00 F10 **792.08** Regulation of Alzheimer's disease tau pathology by membrane bound and soluble fractalkine. S. M. BEMILLER*; C. MILLER; G. WILSON; G. XU; S. CRISH; B. T. LAMB. *Cleveland Clin. Lerner Res. Inst., Cleveland Clin., NEOMED, Cleveland Clin.*

1:00 F11 **792.09** Phosphorylation of Tau at S422 is related to autophagic vesicle accumulation in patients with corticobasal degeneration. A. PIRAS*; L. COLLIN; F. GRUENINGER; C. GRAFF; A. RÖNNBÄCK. *Karolinska Institutet, F. Hoffmann-La Roche AG, NORD DTA, Pharmaceut. Res. and Early Develop., Karolinska Univ. Hosp.*

2:00 F12 **792.10** An important role for microglia in the phagocytosis and clearance of various soluble and insoluble tau species in Alzheimer's disease. W. LUO*; W. LIU; X. HU; M. HANNA; A. CARAVACA; S. M. PAUL. *Weill Cornell Med. Col.*

3:00 G1 **792.11** Development of novel GSK3 β inhibitory peptide targeting tau hyperphosphorylation. H. CHUN*; E. LEE; Y. LEE; S. JI; J. KIM; K. LEE; J. LEE. *Pusan Natl. Univ.*

4:00 G2 **792.12** Two stable SHSY-5Y cell lines over-expressing full length and truncated tau441 as screening tools for tauopathies. R. WRONSKI; N. TAUB; V. SCHIFFER; C. SCHWEINZER; B. HUTTER-PAIER*. *QPS-Austria GmbH.*

1:00 G3 **792.13** The anti-tau monoclonal antibody MC1 promotes microglia-mediated phagocytosis and degradation of pathological tau. W. LIU*; W. LUO; X. HU; N. POLTORATSKAIA; M. HANNA; A. CARAVACA; P. DAVIES; S. PAUL. *Weill Cornell Med. Coll, Albert Einstein Col. of Med., Feinstein Inst. for Med. Res.*

2:00 G4 **792.14** ● Effects of TPI 287, a novel taxoid, on a transgenic mouse model of Alzheimer's disease. E. B. DEFENSOR*; G. FARMER; L. GAN; A. BOXER; M. SHAMLOO. *Stanford Univ., Stanford Univ., Cortice Biosci., Gladstone Inst. of Neurolog. Dis., Univ. of California, San Francisco, Univ. of California, San Francisco.*

3:00 G5 **792.15** Increased tau phosphorylation and aggregation in mice overexpressing corticotropin-releasing factor. S. N. CAMPBELL*; C. ZHENG; L. MONTE; A. D. ROE; K. C. RICE; E. MASLIAH; R. A. RISSMAN. *UCSD, Natl. Inst. on Drug Abuse.*

4:00 G6 **792.16** New composite neuronal tau inclusions in two siblings with a tau mutation-associated disease. M. BRESJANAC*; A. FABJAN; J. MRAZ; D. GLAVAČ; J. MAGDIČ; A. ZUPAN; M. DROLEC NOVAK; M. POPOVIĆ. *Univ. Ljubljana Med. faculty, Inst. of Physiology, ULMF, Inst. of Pathology, Univ. of Ljubljana Fac. of Med. (ULFM), Neurol. Department, Univ. Med. Ctr. Maribor.*

1:00 G7 **792.17** Fibroblast aggregation rate converges with validated peripheral biomarkers for Alzheimer's disease. F. V. CHIRILA*; T. K. KHAN; D. L. ALKON. *Blanchette Rockefeller Neurosciences Inst.*

2:00 G8 **792.18** Frontotemporal lobar degeneration: Initial experience with [18f] t807 pet. B. C. DICKERSON*; K. DOMOTO-REILLY; D. HOCHBERG; M. BRICKHOUSE; N. VASDEV; K. JOHNSON. *Massachusetts Gener Hosp., Massachusetts Gen. Hosp.*

3:00 G9 **792.19** Cortical regions are associated with risk of clinical symptom onset during preclinical Alzheimer's disease. C. PETTIGREW; A. SOLDAN*; Y. LU; M. WANG; T. BROWN; O. SELNES; S. MORI; L. YOUNES; T. RATNANATHER; M. I. MILLER; M. ALBERT. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ., Johns Hopkins Bloomberg Sch. of Publ. Hlth., Johns Hopkins Univ., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ., Johns Hopkins Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 G10 **792.20** Effects of acidic oligosaccharide sugar chain on amyloid oligomer-induced impairment of synaptic plasticity in rats. L. CHANG; F. LI; X. CHEN; S. XU; C. WANG; H. CHEN; Q. WANG*. *Ningbo Univ., Shanghai Jiaotong Univ., Ningbo University, Med. Sch.*
- 1:00 G11 **792.21** Dual use of 11C-deuterium-L-deprenyl tracer in positron emission tomography (PET) imaging of Alzheimer's disease. E. RODRIGUEZ-VIEITEZ*; K. BUTINA; S. F. CARTER; M. SCHÖLL; K. FARID; A. WALL; A. NORDBERG. *Karolinska Inst., Uppsala Univ., Karolinska Univ. Hosp. Huddinge.*
- 2:00 G12 **792.22** White matter integrity is associated with CSF markers of AD in normal adults. B. T. GOLD*; Z. ZHU; C. BROWN; F. SCHMITT; C. SMITH. *Univ. of Kentucky.*
- 3:00 H1 **792.23** Mixed pathology in Alzheimer could be explained by the presence of hybrid oligomers. M. J. GUERRERO*; D. L. CASTILLO-CARRANZA; A. PAULUCCI-HOLTHAUZEN; U. SENGUPTA; C. LASAGNA-REEVES; R. KAYED. *Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

POSTER

793. Alzheimer's Disease: Genetics and Biology II

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 H2 **793.01** Identification and characterization of small molecule EphA4 inhibitors as disease modifiers for Alzheimer's disease. W. FU*; K. HUNG; G. SHUO; J. XU; A. SU; F. IP; X. HUANG; A. FU; N. IP. *Hong Kong Univ. of Sci. and Technol., Hong Kong Univ. of Sci. and Technol., Hong Kong Univ. of Sci. and Technol., Hong Kong Univ. of Sci. and Technol.*
- 2:00 H3 **793.02** Blockade of EphA4 signaling alleviates the impairment of hippocampal synaptic plasticity associated with Alzheimer's disease. A. FU*; K. HUNG; H. HUANG; S. GU; Y. SHEN; E. CHENG; F. IP; X. HUANG; W. FU; N. IP. *The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol., The Hong Kong Univ. of Sci. and Technol.*
- 3:00 H4 **793.03** Histone modifications and Egr1 expression in response to prenatal Arsenic exposure and High Fat Diet. K. N. NAM; A. N. MOUNIER; D. GEORGIEV; N. F. FITZ; A. A. CRONICAN; R. KOLDAMOVA; I. M. LEFTEROV*. *Univ. of Pittsburgh, Univ. Pittsburgh, Grad Sch. Publ. Hlth.*
- 4:00 H5 **793.04** Effects of streptozotocin-induced diabetes on synaptic proteins and tau phosphorylation in mice expressing P301L human tau. C. C. RUDY*; H. C. HUNSBARGER; D. S. WEITZNER; M. N. REED. *West Virginia Univ.*
- 1:00 H6 **793.05** Altered genomic mosaicism with increased DNA content and CNVs in single sporadic Alzheimer's disease neurons. G. E. KAESER*; B. SIDDOWAY; D. M. BUSHMAN; J. CHUN. *The Scripps Res. Inst.*
- 2:00 H7 **793.06** A common pathogenic role of peptidyl prolyl isomerase pin1 in synaptic dysfunction and protein misfolding in Alzheimer's disease. Y. GONG*; C. LIPPA; F. CHOW; R. TSAI; F. RIZZOLIO; S. BOFFO; Z. LIAO. *Drexel Univ. Col. of Med., Nanjing Univ. of Chinese Med., Temple Univ., Natl. Cancer Inst.*
- 3:00 H8 **793.07** ▲ The role of the extracellular domain in the regulation of transmitter release by beta amyloid, nitric oxide and cyclic guanosine monophosphate. A. K. DEGRUTTOLA; D. GRAY*. *Simmons Col., Simmons Col.*
- 4:00 H9 **793.08** Determination of specific genes in neurodegenerative diseases in Ecuadorian Population. R. AVILES REYES*; D. MARTINEZ; B. CARDENAS; P. PALACIOS; S. ANDRADE. *Univ. of Guayaquil, Secretary of High Educ. Sci. and Technol., Luis Vernaza Hosp., Univ. of Guayaquil, Pontifical Catholic Univ.*
- 1:00 H10 **793.09** Gene-based rare allele analysis identified a risk gene of Alzheimer's disease. J. KIM*. *Ilisan Hospital, Natl. Hlth. Insurance Corp.*
- 2:00 H11 **793.10** Identification of differentially hydroxymethylated loci in Alzheimer's disease. A. I. BERNSTEIN*; C. STREET; L. LI; M. GEARING; A. I. LEVEY; P. JIN. *Emory Univ.*
- 3:00 H12 **793.11** Prediction of miRNA-mRNA associations in Alzheimer's disease model mice. H. NOH*; C. PARK; S. PARK; Y. LEE; S. CHO; H. SEO. *Hanyang Univ., Ewha university, Electronics and Telecommunications Res. Inst., Harwell Sci. and Innovation Campus, Seoul Natl. Univ.*
- 4:00 I1 **793.12** Abnormalities in synaptic responses within dendritic spines associates with suppressed network-level CA1 plasticity in presymptomatic Alzheimer's disease mice. S. CHAKROBORTY; E. S. HILL*; W. N. FROST; G. E. STUTZMANN. *Rosalind Franklin Univ., Rosalind Franklin Univ.*
- 1:00 I2 **793.13** A-beta oligomers induced actin cytoskeleton abnormalities and reduced synaptic plasticity in dendritic spines of cortical neurons. M. DOLLMAYER; T. J. RUSH; M. FRANDEMICHE; M. ROLLAND; E. BOREL; K. PERNET-GALLAY; F. LANTÉ; A. BUISSON*. *Gin-U836-Université J. Fourier Grenoble 1.*
- 2:00 I3 **793.14** Locus coeruleus projection system cellular and molecular dysfunction in amnesic mild cognitive impairment. S. E. COUNTS*; S. D. GINSBERG; E. J. MUFSON. *Michigan State Univ., Michigan State Univ., Nathan Kline Inst., NYU Langone Sch. of Med., NYU Langone Sch. of Med., Rush Univ. Med. Ctr.*
- 3:00 I4 **793.15** Late onset Alzheimer's disease risk variants and duration of cognitive impairment show association with end-stage plaque load in the hippocampus. A. J. RAJIC; M. T. WOJNOWICZ; T. T. LEE; M. B. DICK; A. L. PIERCE; W. W. POON*. *UC-Irvine, UC-Irvine, Chapman Univ., UC-Irvine.*
- 4:00 I5 **793.16** Amyloid beta co-localizes with dopamine beta hydroxylase in axon terminals of the rat frontal cortex. J. ROSS*; B. A. S. REYES; A. SAUNDERS; E. J. VAN BOCKSTAELE. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Arts and Sci.*
- 1:00 I6 **793.17** Age-related changes of the axon initial segment and subcellular localization of tau protein in the rat brain. A. KNEYNSBERG*; T. GRABINSKI; N. M. KANAAN. *Michigan State Univ.*

POSTER

794. Parkinson's Disease Models III

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 I7 **794.01** Progressive nigrostriatal neurodegeneration associated with α -synuclein spreading and pathology induced by AAV-mediated overexpression of mutant α -synuclein in mice, rats and marmosets. S. DOVERO*; M. BOURDENX; M. BASTIDE; S. BIDO; M. ENGELN; C. PIRON; F. GEORGES; D. SCHELLER; A. MICHEL; T. BORAUD; P. FERNAGUT; E. BEZARD; B. DEHAY. *Inst. of Neurodegenerative Dis., Inst. for Interdisciplinary Neurosci., UCB Pharma.*
- 2:00 I8 **794.02** Increased vesicular monoamine transporter 2 (VMAT2) expression opposes dopaminergic neurotoxicity in the nigrostriatal pathway. K. M. LOHR*; M. WANG; A. SALAHPOUR; T. S. GUILLOT; G. W. MILLER. *Emory Univ., Emory Univ., Univ. of Toronto.*
- 3:00 I9 **794.03** Preservation of serotonin neurons in mice with reduced vesicular monoamine storage. S. ALTER*; T. N. TAYLOR; T. S. GUILLOT; G. W. MILLER. *Emory Univ., Univ. of Minnesota, Emory Univ.*
- 4:00 I10 **794.04** Development and optimization of an alpha-synuclein split-reporter complementation assay for drug discovery purposes. A. MICHIELS*; S. AELVOET; C. VAN DEN HAUTE; Z. DEBYSER; R. GIJSBERS; V. BAEKELANDT. *KU Leuven, Lab. for Neurobio. and Gene Therapy, Leuven Viral Vector Core, KU Leuven, KU Leuven, Lab. for Mol. Virology and Gene Therapy.*
- 1:00 I11 **794.05** Robust and reproducible AAV-based alpha-synuclein rodent models suitable for drug discovery purposes. A. MICHIELS; A. VAN DER PERREN; M. OLIVERAS-SALVÁ; C. VAN DEN HAUTE; Z. DEBYSER; V. BAEKELANDT*. *KU Leuven, Lab. for Neurobio. and Gene Therapy, Leuven Viral Vector Core, KU Leuven, KU Leuven, Lab. for Mol. Virology and Gene Therapy.*
- 2:00 I12 **794.06** Translational methods for qualitative and quantitative assessment of locomotor deficits and therapeutic improvement in pre-clinical models and patients with Parkinson's disease. I. VOLLENWEIDER*; D. BORTON; J. MIGNARDOT; J. LAURENS; L. BAUD; Y. LANG; L. QIN; J. BLOCH; J. GHKA; E. BEZARD; G. COURTINE. *Ctr. for Neuroprosthetics and Brain Mind Institute, EPFL, Inst. of Neurodegenerative diseases, Univ. Victor Segalen-Bordeaux 2, Ctr. Natl. de la Recherche Scientifique, Motac Neurosci. Ltd, Chinese Acad. of Med. Sci. & Peking Union Med. Col., Univ. Hosp. of Lausanne, Clinique romande de réadaptation SUVA.*
- 3:00 J1 **794.07** Neuromodulation of spinal circuits to alleviate gait deficits in the alpha-synuclein rat model of Parkinson disease. L. BAUD*; N. WENGER; Q. BARRAUD; I. VOLLENWEIDER; E. MARTIN-MORAUD; M. CAPOGROSSO; J. GANDAR; P. DETEMPLE; P. MUSIENKO; S. MICERA; E. BEZARD; G. COURTINE. *Ctr. For Neuroprosthetics and BMI, EPFL, Ctr. for Neuroprosthetics, Sch. of Bioengineering, EPFL, Inst. for Microtechnology Mainz, Neurodegenerative Dis. Institute, CNRS UMR 5293, Univ. of Bordeaux.*
- 4:00 J2 **794.08** Dopamine neuron produced Sonic Hedgehog (Shh) is a critical modulator of Acetylcholine neurons and important for reinforcement learning. A. W. STUCKY*; A. KOTTMANN. *Sophie Davis Sch. of Biomed. Education, CUNY, Columbia Univ.*

- 1:00 J3 **794.09** Impulsivity in GDNF heterozygous mice receiving chronic unpredictable stress. B. Z. YANG*; M. BUHUSI; C. V. BUHUSI. *Utah State Univ.*
- 2:00 J4 **794.10** Aggregated α synuclein intoxication of primary dopaminergic neurons as an *in vitro* model of Parkinson's disease. D. BUTTIGIEG; E. GRAS LAVIGNE; M. OUAMER; R. STEINSCHNEIDER; B. DOROTHEE*. *Neuron Experts.*
- 3:00 J5 **794.11** Correlation between different alpha-synuclein pathological species and onset and progression of behavioral and electrophysiological deficits in a viral mediated rat model of human wt alpha-synuclein overexpression. L. B. VESTERAGER; K. J. ANDERSEN; F. SOTTY; N. MAJBOUR; N. N. VAIKATH; S. MENON; P. KALLUNKI*; O. M. EL-AGNAF; K. FOG. *H. Lundbeck A/S, United Arab Emirates Univ.*
- 4:00 J6 **794.12** The downregulation of longevity-related gene, FOXO3 induces the neurodegeneration of the Lewy body disease model cells. N. LONG; Y. K. NOSE; M. MINAMIYAMA*; N. MOTOYAMA; M. S. NAGAI; K. IBARAKI; T. HAYAKAWA; H. YAMADA; K. KANAMORI; A. YAMAOKA; M. NAOI; W. MARUYAMA. *Natl. Ctr. For Geriatrics and Gerontology, Natl. Ctr. For Geriatrics and Gerontology, Aichi Gakuin Univ.*
- 1:00 J7 **794.13** Retinal structural injury in animal models of Parkinson's disease and chronic manganese exposure detected by optical coherence tomography. D. W. ANDERSON*; M. E. AULT; J. S. SCHNEIDER. *Thomas Jefferson Univ.*
- 2:00 J8 **794.14** Quiescent RAGE in dysfunctional striata from MPTP-treated mice. F. C. PEREIRA*; S. D. VIANA; R. C. FERNANDES; R. SOCODATO; C. C. PORTUGAL; A. M. SILVA; F. CARVALHO; S. F. ALI; C. A. FONTES RIBEIRO. *IBILI/Faculty of Medicine, Univ. of Coimbra, Inst. for Mol. and Cell Biology-IBMC, Fac. of Pharmacy, Univ. of Porto, Natl. Ctr. for Toxicological Research, US Food and Drug Admin.*
- 3:00 J9 **794.15** ● Molecular and neural correlates of olfactory dysfunction by paraquat-induced oxidative stress and modeling for Parkinson disease in *Drosophila melanogaster*. H. KWON*; J. JUNG; H. LEE. *Seoul Natl. Univ.*
- 4:00 J10 **794.16** Effects of 6-hydroxydopamine exposure on motor activity and biochemical expression in zebrafish (*Danio rerio*) larvae. C. W. FENG*; H. HUNG; C. CHEN; Z. WEN; S. HUANG; W. CHEN. *Natl. Sun Yat-Sen Univ., Natl. Sun Yat-Sen University/Academia Sinica, Natl. Sun Yat-sen Univ., Kaohsiung Chang Gung Mem. Hosp. and Chang Gung Univ. Col. of Med., Kaohsiung Chang Gung Mem. Hosp. and Chang Gung Univ. Col. of Med.*
- 1:00 J11 **794.17** Axon guidance molecules in Parkinson's disease. J. A. KORECKA*; J. R. MCLEAN; J. L. JANSSON; J. A. BEAGAN; Z. SCHNEIDER-LYNCH; D. AHMADI; T. M. OSBORN; O. ISACSON. *McLean Hospital/Harvard Med. Sch.*
- 2:00 J12 **794.18** Characterization of G2019S-LRRK2 BAC transgenic rats. H. ABDELMOTILIB*; X. HU; J. DAHER; T. GROEN; A. B. WEST. *Univ. of Alabama At Birmingham.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 K1 **794.19** Overexpression of fragments of the kinase domain of LRRK2 in the rat substantia nigra produces cell disturbances but does not lead to dopaminergic cell loss or motor symptoms. E. P. BROUILLET*; N. CRESTO; M. GAILLARD; E. DIGUET; D. BELLET; L. LEGROUX; L. FRANCELE; J. MITJA; G. AURÉGAN; M. GUILLERMIER; D. HOUITTE; G. BONVENTO; C. JAN; F. PETIT; P. HANTRAYE; N. DÉGLON; K. CAMBON; A. BEMELMANS. *CEA, Mircen, Neurodegenerative Dis. Lab, URA CEA-CNRS 2210.*
- 4:00 K2 **794.20** Generation of Parkinson's disease-linked LRRK2 mutation models with genetically engineered human embryonic stem cells. J. W. KIM*; T. M. DAWSON; V. L. DAWSON. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*
- 1:00 K3 **794.21** The loss of endogenous parkin causes dopaminergic neurodegeneration in a mouse model of mitochondrial aging. A. M. PICKRELL*; C. HUANG; R. J. YOULE. *NIH.*
- 2:00 K4 **794.22** Role of pedunculo-pontine cholinergic neurons in the vulnerability of nigral dopaminergic neurons in Parkinson's disease. M. BENSAD*; P. P. MICHEL; E. C. HIRSCH; C. FRANCOIS. *ICM.*
- 3:00 K5 **794.23** Behavioral pharmacological effects of dopaminergic drugs in common marmosets pretreated with subcutaneous MPTP and intra-cerebral 6-OHDA. K. ANDO*; C. NISHIME; K. KAWAI; R. INOUE; E. NISHINAKA; N. OKAHARA; T. INOUE; T. ITOH; H. TSUTSUMI. *Central Inst. for Exptl. Animals.*
- 4:00 K6 **794.24** Pharmacological validation of a new invertebrate model of Parkinson's disease: The moon jellyfish. P. F. ARAVICH*; V. CHEN; A. QUIDORT; Z. M. ARAVICH; J. H. PAVELA; F. A. LATTANZIO; D. B. SPANGENBERG. *Eastern Virginia Med. Sch., Eastern Virginia Med. Sch., Eastern Virginia Med. Sch.*
- 1:00 K7 **794.25** • A comprehensive tissue based biomarker approach to explore the roles of oxidative stress, mitochondrial dysfunction, and DNA damage in the pathogenesis of Parkinson's disease by using a leucine-rich repeat kinase 2 (LRRK2) knockout rat. W. A. SPECKMANN*; Z. FENG; R. BROCKETT; F. AHMADI; K. LONG; J. NUCKOLLS; A. MCCOY; J. BODE. *Millipore, Eurofins Pharma Bioanalytics Services US Inc, EMD Millipore, EMD Millipore, SAGE Labs, Eurofins Pharma Bioanalytics Services US Inc.*
- 2:00 K8 **794.26** Underlying mechanisms from motor symptoms of the Alpha-synuclein Parkinson Disease rat model. I. BRYSE*; R. FUENTES; J. NUNES; B. SCHNEIDER; P. AEBISCHER; M. A. L. NICOLELIS. *Edmond and Lily Safra Intl. Inst. of Neurosci. of Natal, Federal Univ. of Rio Grande do Norte, Univ. Potiguar, École Polytechnique Federale de Lausanne, Duke Univ.*
- 3:00 K9 **794.27** N- α -synuclein specific CD4+ effector T cell line exacerbates 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine induced neurodegeneration in a mouse model of Parkinson's disease. R. A. WILSHUSEN; K. M. ANDERSON; A. M. SZLACHETKA; R. MOSLEY*. *Univ. Nebraska Med. Ctr.*

POSTER

795. Huntington's Disease Mechanisms II

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 L1 **795.01** Dysregulation of polycomb repressive complex 2 (PRC2) activity in Huntington's disease. R. J. FENSTER*; A. M. HEILBUT; R. KULICKE; L. J. HACHIGIAN; E. D. KOLACZYK; J. P. MESIROV; M. HEIMAN. *The Broad Inst., The Picower Inst. for Learning and Memory, Brown Univ., Boston Univ., MIT, Boston Univ.*
- 2:00 L2 **795.02** Dysregulated cysteine homeostasis mediates neurodegeneration in Huntington's disease. B. D. PAUL*; J. I. SBODIO; R. XU; M. S. VANDIVER; J. Y. CHA; A. M. SNOWMAN; S. H. SNYDER. *Johns Hopkins Univ. Sch. of Med.*
- 3:00 L3 **795.03** *In vivo* synthetic lethal screening in the mammalian central nervous system. R. SHEMA*; R. KULICKE; M. HEIMAN. *MIT, The Broad Inst. of MIT and Harvard, the Picower Inst. for Learning and Memory.*
- 4:00 L4 **795.04** Study of tau expression in Huntington's disease. J. J. LUCAS*; M. FERNANDEZ-NOGALES; J. CABRERA; M. SANTOS-GALINDO; J. HOOZEMANS; I. FERRER; A. ROZEMULLER; F. HERNANDEZ; J. AVILA. *CSIC/UAM, VU Univ. Med. Ctr., IDIBELL-University Hosp. Bellvitge, UB.*
- 1:00 L5 **795.05** Inhibition of excessive monoamine oxidase A/B activity protects against increased stress-induced neuronal death in Huntington's disease. M. A. POULADI*; J. OOI; M. R. HAYDEN. *A*STAR and Natl. Univ. of Singapore (NUS), Agency for Science, Technol. and Res. (A*STAR), Agency for Science, Technol. and Res. (A*STAR), Natl. Univ. of Singapore (NUS).*
- 2:00 L6 **795.06** Sphingosine-1-phosphate metabolism/axis as potential therapeutic target in Huntington's disease. V. MAGLIONE*; A. DI PARDO; E. AMICO; M. FAVELLATO; F. SQUITIERI. *IRCCS Neuromed.*
- 3:00 L7 **795.07** • Dendritic loss is an early phenotype in rat cortico-striatal co-cultures expressing mutant huntingtin. S. DIJKSTRA; R. VAN DE BOSPOORT; S. LACHIZE; S. FRATANTONI; J. VEENMAN; N. VAN DEN BERG; G. MCALLISTER; D. F. FISCHER*; S. JANG. *BioFocus, BioFocus, CHDI Mgmt. / CHDI Fdn.*
- 4:00 L8 **795.08** Age dependent changes in M4-mediated control of striatal glutamate and dopamine signaling in the YAC128 mouse model of Huntington's disease. T. PANCANI*; T. BICHELL; D. FOSTER; E. BRADLEY; M. C. FERGUSON; T. BRIDGES; S. DANIELS; A. BOWMAN; C. W. LINDSLEY; P. J. CONN; Z. XIANG. *Vanderbilt Univ. Medcenter, Vanderbilt Univ.*
- 1:00 L9 **795.09** RTP801 mediates mutant huntingtin-induced cell death. N. MARTÍN-FLORES; J. ROMANÍ-AUMEDES; M. CANAL; P. SANDERS; M. STRACCIA; L. RUÉ; C. SVENDSEN; N. D. ALLEN; J. ALBERCH; J. CANALS; E. PEREZ-NAVARRO*; C. MALAGELADA. *Dept. of Pathological Anatomy, Pharmacol. and Microbiology, Dept. Cell Biology, Immunol. and Neurosciences, Univ. of Barcelona, Regenerative Med. Institute, Cedars-Sinai Med. Ctr., Divisions of Pathophysiology & Repair and Neuroscience, Sch. of Biosci.*
- 2:00 L10 **795.10** Expression of mutant huntingtin in astrocytes suppresses BDNF secretion. Y. HONG*; T. ZHAO; X. LI; S. LI. *Emory Univ.*

- 3:00 L11 **795.11** Studying turnover of mutant huntingtin in neuronal and glial cells at subcellular level. T. ZHAO*; Y. HONG; S. LI; X. LI. *Emory Univ.*
- 4:00 L12 **795.12** CalDAG-GEFI and CalDAG-GEFII are down-regulated in the R6/2 Huntington's disease mouse model and show reduced H3K4 trimethylation in a pattern typical of dysregulated neuronal genes. J. R. CRITTENDEN*; F. YILDIRIM; H. A. BOWDEN; T. A. GIPSON; C. W. NG; E. FRAENKEL; D. E. HOUSMAN; A. M. GRAYBIEL. *MIT, MIT.*
- 1:00 M1 **795.13** Mutant huntingtin causes loss of mechanisms underlying early cognitive deficits in Huntington's disease. R. P. MURMU*; W. LI; J. LI. *Panum Inst., Lund Univ.*
- 2:00 M2 **795.14** ▲ Processing deficits in the behavioral modulation of striatal local field potential activity in the YAC128 mouse model of Huntington's disease. E. S. ZHANG; S. J. BARTON; G. V. REBEC*. *Indiana Univ.*
- 3:00 M3 **795.15** *In vivo* characterization of the basal ganglia direct, indirect, and hyperdirect pathways in the zQ175 heterozygous knock-in mouse model of Huntington's disease. S. ZHONG; H. LIN; N. KEATING; A. GHAVAMI; R. CACHEPOPE; R. F. ROGERS*; V. BEAUMONT. *PsychoGenics, Inc., CHDI Management, Inc., CHDI Management, Inc.*
- 4:00 M4 **795.16** ● Ultra-sensitive detection of huntingtin protein in biofluids from Huntington's disease patients and model mice using immunoprecipitation followed by flow cytometry. S. E. P. SMITH; A. L. SOUTHWELL; T. R. DAVIS; E. B. VILLANUEVA; B. LEAVITT*; A. G. SCHRUM; M. R. HAYDEN. *Mayo Clin. Col. of Med., Ctr. For Mol. Med. & Therapeut.*
- 1:00 M5 **795.17** Respiratory activity of isolated mitochondria, cultured neurons, and whole YAC128 mice, a model of Huntington's disease. J. HAMILTON*; T. BRUSTOVETSKY; N. BRUSTOVETSKY. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*
- 2:00 M6 **795.18** Activation of axonal JNKs represents an early pathogenic event in Huntington's disease that correlates with axonal degeneration. R. G. GATTO*; E. TAVASSOLI; Y. CHU; J. KORDOWER; G. A. MORFINI. *Univ. of Illinois At Chicago, Rush Univ. Med. Ctr.*
- 3:00 M7 **795.19** M-channel activators rescue homeostatic regulation of striatal excitability and ameliorate locomotor deficits in the R6/2 Huntington's mouse. Y. CAO; D. BARTOLOME-MARTIN; N. ROTEM; C. ROZAS; S. S. DELLAL; M. A. CHACON; B. KADRIU; M. GULINELLO; K. KHODAKHAH; D. S. FABER*. *Albert Einstein Coll Med.*
- 4:00 M8 **795.20** Characterization of signature changes mediated by mutant huntingtin expression in cortico-striatal co-culture: Towards a drug screening platform. C. BUREN*; M. P. PARSONS; L. A. RAYMOND. *The Univ. of British Columbia.*
- 1:00 M9 **795.21** Calcium uptake capacity and induction of the permeability transition pore in brain mitochondria from YAC 128 mice. J. J. PELLMAN*; T. BRUSTOVETSKY; N. BRUSTOVETSKY. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med.*
- 2:00 M10 **795.22** Huntingtin is required for normal excitatory synapse development in cortical and striatal circuits. S. U. MCKINSTRY*; Y. B. KARADENIZ; A. K. WORTHINGTON; V. HARAPETYAN; M. I. OZLU; K. SERAFIN-MOLINA; W. C. RISHER; T. USTUNKAYA; I. DRAGATIS; S. ZEILTIN; H. H. YIN; C. EROGLU. *Duke Univ., The Univ. of Tennessee, Univ. of Virginia.*

- 3:00 M11 **795.23** Imaging the spatiotemporal dynamics of evoked glutamate release in a mouse model of Huntington's disease using iGluSnFr. M. P. PARSONS*; M. P. VANNI; T. H. MURPHY; L. A. RAYMOND. *Univ. of British Columbia.*
- 4:00 M12 **795.24** Vaccinia-related kinase 2 mediates accumulation of polyglutamine aggregates via negative regulation of the chaperonin tric. J. LEE*. *POSTECH.*
- 1:00 N1 **795.25** Integrated systems biology approach reveals relationships between age, Htt genotype, and transcriptional dysregulation in knock-in mouse models of Huntington's disease. J. R. PEARL*; S. A. AMENT; J. C. EARLS; C. PLAISIER; N. GOODMAN; G. CARLSON; A. GRINDELAND; V. WHEELER; J. CARROLL; N. D. PRICE; L. E. HOOD. *Univ. of Washington, Inst. for Systems Biol., McLaughlin Res. Inst., Harvard Med. Sch., Western Washington Univ.*

POSTER

796. Motor Neuron Disease Mechanisms

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 N2 **796.01** Promoter methylation is an epigenetic disease modifier of mutant C9orf72. J. RUSS; K. WU; D. NEAL; E. SUH; D. J. IRWIN; C. T. MCMILLAN; E. M. WOOD; S. X. XIE; L. ELMAN; L. MCCLUSKEY; M. GROSSMAN; V. M. VAN DEERLIN; E. B. LEE*. *Perelman Sch. of Med. at the Univ. of Pennsylvania, Perelman Sch. of Med. at the Univ. of Pennsylvania, Perelman Sch. of Med. at the Univ. of Pennsylvania, Perelman Sch. of Med. at the Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 2:00 N3 **796.02** C9orf72 hypermethylation protects against repeat expansion associated pathology in ALS/FTD. E. Y. LIU*; J. RUSS; K. WU; D. NEAL; E. SUH; A. G. MCNALLY; D. J. IRWIN; V. M. VAN DEERLIN; E. B. LEE. *Perelman Sch. of Med. At Univ. of Pennsylvania, Perelman Sch. of Med. At Univ. of Pennsylvania, Perelman Sch. of Med. At Univ. of Pennsylvania, Perelman Sch. of Med. At Univ. of Pennsylvania, Perelman Sch. of Med. At Univ. of Pennsylvania.*
- 3:00 N4 **796.03** Angiogenin is a secreted ribonuclease that cleaves RNAs in paracrine. M. C. HOGG; J. H. PREHN*. *Royal Col. of Surgeons in Ireland, Royal Col. of Surgeons in Ireland.*
- 4:00 N5 **796.04** The role of the rna binding protein rbm45 and nuclear stress bodies in als and ftld. M. A. COLLINS*; Y. LI; R. BOWSER. *Univ. of Pittsburgh, Barrow Neurolog. Inst.*
- 1:00 N6 **796.05** Examining the role of necroptosis signaling in motor neuron dysfunction and death in amyotrophic lateral sclerosis. K. POLITI; D. RE; V. LE VERCHE; S. PHANI; R. PRADHAN; S. E. PRZEDBORSKI*. *Columbia Univ., Columbia Univ., Columbia Univ.*
- 2:00 N7 **796.06** ● The role of HIF-1 α and SREBP1 in models of ALS. S. DOSHI*; A. M. JABLONSKI; R. G. KALB. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*
- 3:00 N8 **796.07** Quantitative assessment of endogenous calcium homeostasis in adult hypoglossal motoneurons of wildtype and SOD1-G93A ALS mice. A. FUCHS; S. KUTTERER; B. LISS; J. ROEPER; B. U. KELLER*. *Karolinska Institutet, Univ. of Göttingen, Goethe Univ. Frankfurt, Univ. of Ulm, Univ. Göttingen.*

Wed. PM

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 N9 **796.08** The involvement of the notch signaling pathway in amyotrophic lateral sclerosis. A. H. NONNEMAN; T. PHILIPS; P. DUPONT*; R. LEMMENS; P. VAN DAMME; L. VAN DEN BOSCH; W. ROBBERECHT. *KU Leuven, VIB, Vesalius Res. Center, Lab. of Neurobio., Johns Hopkins Univ. Sch. of Med., KU LEUVEN, Univ. Hosp. Leuven.*
- 1:00 N10 **796.09** Loss of TIA1 impairs development of male reproductive organs in a mouse model of spinal muscular atrophy. M. D. HOWELL*; N. N. SINGH; J. SEO; E. M. WHITLEY; R. N. SINGH. *Iowa State Univ., Iowa State Univ.*
- 2:00 N11 **796.10** ▲ Investigation of the timing and extent of sensory nervous system degeneration in ALS. A. LAGRIMAS*; B. GENC; H. WILSON; R. HESS; M. YASVOINA; M. TU; D. M. MENICHELLA; R. J. MILLER; A. PALLER; P. OZDINLER. *Northwestern Univ., Northwestern Univ., Univ. of Notre Dame, Northwestern Univ., Northwestern Univ., Northwestern Univ., Northwestern Univ., Northwestern Univ.*
- 3:00 N12 **796.11** Importance of UCHL1 function for the motor neuron circuitry and the health of the corticospinal motor neurons. B. GENC*; J. H. JARA; E. ULUPINAR; M. MANUEL; G. A. COX; M. C. BOHN; C. J. HECKMAN; R. P. ROOS; J. D. MACKLIS; C. J. DIDONATO; P. ÖZDINLER. *Northwestern Univ. Feinberg Sch. of Med., Eskişehir Osmangazi Univ. Med. Sch., Dept. of Physiology, Northwestern University, Feinberg Sch. of Medicine., The Jackson Lab., Neurobio. Program, Dept. of Pediatrics, Ann & Robert H. Lurie Children's Hosp. of Chicago Res. Ctr., Dept. of Med. and Rehabilitation; Dept. of Physical Therapy and Movement Sci. at Northwestern University, Feinberg Sch. of Med., Dept. of Neurology, Univ. of Chicago Med. Ctr., Dept. of Stem Cell and Regenerative Biology, and Harvard Stem Cell Institute, Harvard Univ., Dept. of Neurol. and Program in Neuroscience, Harvard Med. Sch., Dept. of Pediatrics, Feinberg Sch. of Medicine, Northwestern Univ., Human Mol. Genet. Program, Ann & Robert H. Lurie Children's Hosp. of Chicago Res. Ctr., Northwestern Univ. Robert H. Lurie Cancer Ctr., Northwestern Univ. Cognitive Neurol. and Alzheimer's Dis. Ctr.*
- 4:00 O1 **796.12** The electrophysiological properties of the different motor unit subtypes are not equally affected in adult SOD1-G93A mice. M. MANUEL*; C. HECKMAN; D. ZYTNIKI. *CNRS / Univ. Paris Descartes, Northwestern Univ.*
- 1:00 O2 **796.13** *In vivo* characterization of G93A-SOD1 mouse model of amyotrophic lateral sclerosis by magnetic resonance imaging (MRI) and spectroscopy (MRS). K. LEHTIMÄKI; J. OKSMAN; T. LAITINEN; T. AHTONIEMI; A. NURMI; S. HÄTINEN*. *Charles River Discovery Res. Services.*
- 2:00 O3 **796.14** Characterization of the astroglial gap junction protein Connexin 43 in Amyotrophic Lateral Sclerosis. A. A. ALMAD*; A. DORESWAMY; X. TANG; S. GROSS; N. MARAGAKIS. *Johns Hopkins Univ., Johns Hopkins Univ.*
- 3:00 O4 **796.15** ● Presymptomatic dysfunction in glial cells at the NMJ may impact reinnervation in SOD1G37R mice. E. MARTINEAU*; R. ROBITAILLE. *Univ. De Montréal.*
- 4:00 O5 **796.16** The role of the infiltrating immune cells attracted by activated microglia in amyotrophic lateral sclerosis mice. O. KOMINE; H. YAMASHITA; N. FUJIMORI-TONOU; Y. MORIWAKI; F. ENDO; S. WATANABE; H. MISAWA; K. YAMANAKA*. *Res. Inst. of Envirn. Medicine, Nagoya Univ., Kyoto Univ. Grad. school of Med., RIKEN Brain Sci. Inst., Fac. of Pharmacy, Keio Univ., Res. Inst. of Envirn. Medicine, Nagoya Univ.*
- 1:00 O6 **796.17** Early-onset neuropathology and neuroinflammation in motor and sensory brain areas and their association with CGRP abundance in the SOD1-G93A mouse model of amyotrophic lateral sclerosis. B. SCHUETZ*; C. RINGER; H. SCHWARZBACH; S. TUNE; E. WEIHE. *Philipps Univ., Univ. of California.*
- 2:00 O7 **796.18** Oxidative stress expands the repertoire of alternatively spliced transcripts of spinal muscular atrophy gene. J. SEO*; S. SIVANESAN; M. D. HOWELL; E. W. OTTESEN; N. N. SINGH; M. SHISHIMOROVA; R. N. SINGH*. *Iowa State Univ.*
- 3:00 O8 **796.19** Direct conversion of spinal astrocytes into functional neurons with defined transcription factors and small molecules. L. ZHANG*; J. YIN; H. YEY; N. MA; G. LEE; G. WU; G. CHEN. *The Pennsylvania State Univ., The Pennsylvania State Univ.*
- 4:00 O9 **796.20** Emerging roles of RBFOX1 and motor neuron hyperexcitability in an iPSC model of ALS. E. R. LOWRY*; D. J. WILLIAMS; Q. YAN; D. OAKLEY; K. EGGAN; H. WICHTERLE; C. E. HENDERSON. *Rockefeller Univ., Columbia Univ., Columbia Univ., Columbia Univ., Columbia Univ., Harvard Stem Cell Inst.*
- 1:00 O10 **796.21** ● Characterization of β-methylamino-L-alanine (BMAA) as a tool to study environmental-linked sporadic amyotrophic lateral sclerosis. B. IKIZ*; S. D. CROLL; A. J. MURPHY; L. E. MACDONALD; M. L. LACROIX-FRALISH. *Regeneron, Regeneron.*
- 2:00 O11 **796.22** Characterization of angiogenin-induced, trna-derived stress-induced rnas. S. SUSDALZEW*; M. C. HOGG; J. H. M. PREHN. *Royal Col. of Surgeons In Ireland.*
- 3:00 O12 **796.23** Astrocytes derived from Amyotrophic Lateral Sclerosis patients upregulate ABC drug efflux transporters at the endothelial cell layer. M. R. JABLONSKI*; S. MARKANDIAIAH; P. PASINELLI; D. TROTTI. *Thomas Jefferson Univ.*
- 4:00 P1 **796.24** Aberrant release of netrin-1 by astrocytes is toxic to motor neuron in ALS. L. T. ROSENBLUM*; A. BOGUSH; X. WEN; P. PASINELLI; D. TROTTI. *Thomas Jefferson Univ., Temple Univ.*
- 1:00 P2 **796.25** Modeling disease-specific axonal defects of hereditary spastic paraplegia with human pluripotent stem cells. K. R. DENTON*; L. LEI; J. GRENIER; V. RODIONOV; C. BLACKSTONE; X. LI. *Uconn Hlth. Ctr., Uconn Hlth. Ctr., Natl. Inst. of Neurolog. Disorders and Stroke, Uconn Hlth. Ctr.*
- 2:00 P3 **796.26** Amyotrophic lateral sclerosis linked mutations in fused in sarcoma (fus) cause non-cell autonomous toxicity to motor neurons. A. T. KIA*; K. MCAVOY; K. KRISHNAMURTHY; S. SHAMAMANDRI MARKANDIAIAH; D. TROTTI; P. PASINELLI. *Thomas Jefferson Univ.*
- 3:00 P4 **796.27** The involvement of glial cells in FUS-related ALS/FTLD pathophysiology -FUS knock-down glial cells have a neuro-protective effect.-. Y. FUJIOKA*; S. ISHIGAKI; T. SHIROMIZU; T. UDAGAWA; D. HONDA; S. YOKOI; K. IKENAKA; M. KATSUNO; T. TOMONAGA; G. SOBUE. *Nagoya Univ., Natl. Inst. of Biomed. Innovation.*
- 4:00 P5 **796.28** Impact of *in vitro* and *in vivo* modulation of ALS C9ORF72 gene. P. J. MULCAHY*; A. HIGGINSBOTTOM; G. HAUTBERGUE; P. J. SHAW; M. AZZOUZ. *Sheffield Inst. For Translational Neurosci.*
- 1:00 P6 **796.29** SUMO3 accelerates aggregation of ALS-linked SOD1 mutants. T. NIHKURA*; Y. KITA; Y. ABE. *Sophia Univ., Osaka Prefecture Univ., Keio Univ. Sch. of Med.*

2:00 P7 **796.30** Mechanistic study of oligodendrocyte degeneration in ALS *in vitro*. Y. LI*; B. DWIGHT; J. D. ROTHSTEIN. *The Johns Hopkins Univ. Sch. of Med., the Johns Hopkins Univ. Sch. of Med.*

POSTER

797. Other Neurodegenerative Disorders II

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

1:00 P8 **797.01** Selective Neurodegeneration in Alzheimer's disease and Parkinson's disease. J. WANG*; W. SONG. *UBC.*

2:00 P9 **797.02** Selenoprotein P mediates modification of synaptic physiology and plasticity. E. D. NGUYEN-WU*. *Univ. of Hawaii At Manoa, John A. Burns Sch. of Med.*

3:00 P10 **797.03** • Introducing MAPT mutation into human iPSC-derived neural stem cells using CRISPR/Cas systems. Y. IMAIZUMI*; H. OCHIAI; K. YAMAZAKI; K. SAGANE; M. ITO. *Eisai Co., Ltd.*

4:00 P11 **797.04** Targeted induction of endogenous TRPML2 (Mucolipin-2) or TRPML3 (Mucolipin-3) expression for use as potential therapy for Mucopolidosis type IV. J. A. VALADEZ; M. P. CUAJUNGCO*. *CALIFORNIA STATE UNIV FULLERTON.*

1:00 P12 **797.05** Evidence for lysosomal membrane permeability and protein aggregate formation in Mucopolidosis type IV. L. C. BOUDEWYN*; M. C. MICSENYI; S. U. WALKLEY. *Albert Einstein Col. of Med.*

2:00 Q1 **797.06** ▲ Deoxysphingolipids: A new biomarker in peripheral neuropathy? E. A. JOHNSON*; N. WEI; T. HORNEMANN; F. EICHLER*. *Massachusetts Gen. Hosp., Univ. Hosp. Zurich.*

3:00 Q2 **797.07** Dynamic palmitoylation of H⁺-transporting V-ATPase subunit a1 regulates lysosomal acidification and is disrupted in Ppt1^{-/-} mice. M. B. BAGH; G. CHANDRA; Z. ZHANG; S. PENG; A. B. MUKHERJEE*. *NIH, Rush Univ. Med. Ctr., NIH, Natl. Inst. of Hlth.*

4:00 Q3 **797.08** • Intrathecal or intravenous recombinant human alpha-iduronidase improve brain myelination in canine mucopolysaccharidosis I. P. DICKSON*; J. M. PROVENZALE; S. CHEN; I. NESTRASIL; J. YEE; S. KAN; S. Q. LE; J. JENS; E. SNELLA; M. A. GUZMAN; C. VITE; E. G. SHAPIRO; N. ELLINWOOD. *Harbor-Ucla, Duke Univ., Univ. of Minnesota, Harbor-UCLA/LA BioMed, Iowa State Univ., St. Louis Univ., Univ. of Pennsylvania.*

1:00 Q4 **797.09** The mechanism of HspB1 and its mutants on the regulation of RhoA activity. X. SUN*; D. J. FINK; M. MATA. *Univ. of Michigan, VA Ann Arbor Healthcare Syst.*

2:00 Q5 **797.10** Investigating SPTLC1 mutations on protein profiles in HSN-I patient lymphoblasts. S. STIMPSON*; J. COORSSSEN; S. MYERS. *Univ. of Western Sydney.*

3:00 Q6 **797.11** Axonal transport disruption and cytoskeletal restructuring in retinal ganglion cells following elevated intraocular pressure. A. NUSCHKE*; X. WANG; C. SMITH; V. DANTHUREBANDARA; N. O'LEARY; B. CHAUHAN. *Dalhousie Univ., Natl. Eye Institute, Natl. Inst. of Hlth., Dalhousie Univ., Dalhousie Univ., Univ. of Manchester.*

4:00 Q7 **797.12** Progranulin haploinsufficiency causes pre-clinical retinal thinning and NCL-like pathology in humans. M. E. WARD*; R. CHEN; A. TAUBES; S. MINAMI; Y. LI; B. MILLER; B. SEELEY; H. HUANG; H. BOUDIN; E. HUANG; S. COTMAN; J. STAROPOLI; A. GREEN; L. GAN. *Gladstone Inst. of Neurolog. Dis., Univ. of California, San Francisco, Massachusetts Gen. Hosp.*

1:00 Q8 **797.13** Identification of transcription factors necessary for re-establishing retinotectal connections after optic nerve transection in zebrafish. I. VENKATESH*; R. TEAL; A. UDVADIA. *Univ. of Wisconsin.*

2:00 Q9 **797.14** Cytoskeletal alterations and abnormal protein accumulation in the primary visual projection of the DBA/2J mouse model of glaucoma. S. D. CRISH*; G. N. WILSON; M. A. SMITH; C. M. DENGLER-CRISH. *NEOMED.*

3:00 R1 **797.15** The number of photoreceptors is reduced in postmortem human retinas after short durations of diabetes. A. J. BARBER*; S. MOHR; W. F. ROBINSON. *Penn State Univ. Col. Med., Michigan State Univ.*

4:00 R2 **797.16** Aberrant homeostasis of the dopamine D2-like receptor subtypes mediating inhibition of the vasopressor sympathetic outflow in diabetic rats. A. H. ALTAMIRANO-ESPINOZA*; G. MANRIQUE-MALDONADO; E. RIVERA-MANCILLA; B. VILLANUEVA-CASTILLO; C. M. VILLALON. *Dept. De Farmacobiología Cinvestav Sede Sur.*

1:00 R3 **797.17** Characterization of cerebrovascular function in mice developing cerebral small vessel disease. M. BALBI*; N. PLESNILA. *Inst. For Stroke and Dementia (ISD)University.*

2:00 R4 **797.18** Altered structural white matter patterns in children with perinatally acquired HIV are associated with processing speed. T. M. NIR*; N. JAHANSHAD; V. G. VALCOUR; W. PRASITSUEBSAI; A. DESAI; S. CATELLA; S. LERDLUM; P. VISRUTARATNA; K. PRUKSAKEW; L. AURPIBUL; T. PUTHANAKIT; S. J. KERR; J. ANANWORANICH; P. THOMPSON. *USC Imaging Genet. Ctr., UCSF, SEARCH, The Thai Red Cross AIDS Res. Ctr., Chulalongkorn Univ., Chiang Mai Univ., RIHES, Henry M. Jackson Fndn.*

3:00 R5 **797.19** Functional connectivity revealed an isolated cingulate cortex due to aging and HIV-infection. X. JIANG*; C. LIU; C. WANG; M. YOUNG. *Georgetown Univ. Med. Ctr., Georgetown Univ. Med. Ctr.*

4:00 R6 **797.20** Antemortem diagnosis of Neuronal intranuclear inclusion disease. J. SONE*; N. KITAGAWA; T. INAGAKI; Y. IWASAKI; M. YOSHIDA; F. TANAKA; G. SOBUE. *Nagoya Univ. Sch. of Med., Kosei Chuo Gen. Hosp., Aichi Med. Univ., Yokohama City Univ. Grad. Sch. of Med.*

1:00 R7 **797.21** Proteasome impairment and protein aggregation in the nervous system of *Drosophila*. M. JANSEN; E. LEMPERT; R. ADEROGBA; T. SCHMIDT-GLENEWINKEL*. *Hunter Col. and Grad. Ctr. of CUNY, Hunter Col. of CUNY.*

2:00 R8 **797.22** HIV-1 Tat activates a RhoA/ROCK signaling pathway to reduce NMDA-evoked calcium increases in hippocampal neurons via an actin-dependent mechanism. K. A. KROGH*; E. A. LYDDON; S. A. THAYER. *Univ. of Minnesota.*

3:00 R9 **797.23** Effect of adipose derived mesenchymal stem cells administration on hypoglycemia-induced neuronal death. J. KIM*; H. KIM; B. LEE; B. CHOI; I. KIM; S. LEE; M. SOHN; S. SUH. *Hallym University, Col. of Med., Inha Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 R10 **797.24** Analysis of FET and stress granule related proteins in frontotemporal lobar degeneration (FTLD). R. BANDOPADHYAY*; J. BRELSTAFF; C. PERSAD; T. LASHLEY. *Inst. of Neurol.*
- 1:00 R11 **797.25** MicroRNA-21 influences the progression of Cervical Spondylotic Myelopathy by altering astrocyte reactive state and onset of symptoms. A. M. LALIBERTE*; S. K. KARADIMAS; M. G. FEHLINGS. *Univ. of Toronto, Krembil Neurosci. Centre, Toronto Western Res. Institute, Univ. Hlth. Network.*
- 2:00 R12 **797.26** Sentization of trigeminal nervous system by infraorbital nerve injury exacerbates the pathophysiology of migraine. M. TOOYAMA; C. KUDO*; C. MUKAI; Y. MORIMOTO; H. NIWA. *Osaka Univ. Grad. Sch. of Dent., Kyusyu Univ. Hosp.*
- 3:00 S1 **797.27** • Magnetic field and induced electrical field distributions of Figure-Eight TMS. I. BASALDUA*. *UMBC.*

POSTER

798. Autism Behavioral Analysis II

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *Walter E. Washington Convention Center, Halls A-C*

- 1:00 S2 **798.01** Behavioral, molecular and electrophysiological deficits in the Shank3-deficient rat model for autism. H. HARONY-NICOLAS*; O. BOZDAGI-GUNAL; M. KAY; N. DASKALAKIS; B. KLEI; M. BAXTER; K. ROEDER; S. WAGNER; J. D. BUXBAUM. *Dept. of Psychiatry, Icahn Sch. of Med., Seaver Autism Ctr. for Res. and Treatment, Univ. of Haifa, Carnegie Mellon Univ., Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*
- 2:00 S3 **798.02** The Tube Co-occupancy Test (TCOT): A novel way to measure affiliative behaviour among laboratory mice. A. H. TUTTLE*; K. DOSSETT; L. GERSTEIN; L. STEIN; R. PEARL; M. SUKOSD; P. LEGER; D. YACHNIN; J. S. AUSTIN; J. S. MOGIL. *McGill Univ., Alan Edwards Ctr. for Res. on Pain.*
- 3:00 S4 **798.03** Consistency between the neuroanatomical and behavioural phenotype in the 15q11-13 duplication mouse model. J. ELLEGOOD*; N. NAKAI; J. NAKATANI; T. TAKUMI; J. P. LERCH. *Hosp. For Sick Children, RIKEN Brain Sci. Inst. (BSI), Shiga Med. Univ.*
- 4:00 S5 **798.04** Automated variant scoring for the prioritization of candidate genes in the autism genetic database AutDB. E. LARSEN*; M. ZIATS; S. BANERJEE-BASU. *Mindspec Inc., Baylor Col. of Med.*
- 1:00 S6 **798.05** Changes in prefrontal microcircuit organization increase repetitive network activity in two mouse models of autism. F. LUONGO*; C. ZIMMERMAN; A. BRUMBACK; M. HORN; V. SOHAL. *UCSF.*
- 2:00 S7 **798.06** Brain structure volumes as a means of measuring changes in neuron gene expression. D. J. FERNANDES*; J. P. LERCH; J. ELLEGOOD. *Mouse Imaging Ctr.*
- 3:00 S8 **798.07** Behavioral characterization of an ephrin-a knockout mouse model for autism spectrum disorders. R. WURZMAN*; P. FORCELLI; L. F. KROMER. *Rachel Wurzman, Georgetown Univ. Med. Ctr., Georgetown Univ. Med. Ctr.*
- 4:00 S9 **798.08** Enhancing AMPA signaling improves sociability in an autism mouse model. M. HAN*; R. M. MEJIAS-ESTEVEZ; R. L. HUGANIR; T. WANG. *The Johns Hopkins Univ., The Johns Hopkins Univ., The Johns Hopkins Univ.*
- 1:00 S10 **798.09** Learning delays in a mouse model of autism spectrum disorder. A. R. RENDALL*; D. T. TRUONG; R. H. FITCH. *Univ. of Connecticut.*
- 2:00 S11 **798.10** Morphological changes in the medial geniculate nucleus of Cntnap2 KO mice. D. T. TRUONG*; A. R. RENDALL; R. H. FITCH. *Univ. of Connecticut.*
- 3:00 S12 **798.11** Functional characterization of Itgb3 promoter gene variants associated with elevated serotonin blood levels. S. GABRIELE*; C. LINTAS; R. SACCO; A. M. PERSICO. *Univ. Campus Biomedico, Mafalda Luce Ctr. for Pervasive Developmental Disorders.*
- 4:00 T1 **798.12** Common functional genetic variants support Th2 and NK immune pathway contributions to the pathogenesis of Autism Spectrum Disorder. I. PIRAS*; S. GABRIELE; V. NAPOLIONI; R. SACCO; A. M. PERSICO. *Unit of Child and Adolescent Neuropsychiatry & Lab., Mafalda Luce Ctr. for Pervasive Developmental Disorders.*
- 1:00 T2 **798.13** • Linguistically deprived children: Meta-analysis of published research indicates mental synthesis disability - Implications for novel intervention strategies for children with language delay. A. VYSHEDSKIY*; R. DUNN. *Boston Univ., ImagiRation LLC.*
- 2:00 T3 **798.14** Bidirectional changes in ube3a gene dosage reciprocally regulate aggression in models of angelman syndrome and idic15. D. C. STOPPEL*; J. TODOROVIC; M. P. ANDERSON. *Beth Israel Deaconess Med. Ctr., Univ. of Texas.*
- 3:00 T4 **798.15** Pax6 haploinsufficiency affects maternal separation-induced ultrasonic vocalization by advanced paternal age in the offspring. N. OSUMI*; R. KIMURA; K. YOSHIZAKI; K. KOIKE; V. TUCCI; H. INADA. *Tohoku Univ. Grad. Sch. Med., Inst. Italiano di Tecnologia.*
- 4:00 T5 **798.16** AutDB: Integrator of diverse data related to autism. S. B. BASU*; E. C. LARSEN; I. DAS; S. MUEND; R. LIN; W. PEREANU. *Mindspec Inc., MindSpec Inc.*
- 1:00 T6 **798.17** Analysis of forebrain MEF2C function in autism-like behaviors. A. J. HARRINGTON*; J. KUMAR; J. RADUAZZO; C. W. COWAN. *McLean Hosp., UT Southwestern, Harvard Univ.*

POSTER

799. Autism Environment and Pathology

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – *Walter E. Washington Convention Center, Halls A-C*

- 1:00 T7 **799.01** Predictable enriched environments reduce hyper-emotionality in the VPA rat model of autism. M. R. FAVRE*; D. LA MENDOLA; J. MEYSTRE; D. CHRISTODOULOU; M. COCHRANE; H. MARKRAM; K. MARKRAM. *EPFL.*
- 2:00 T8 **799.02** Individually specially targeted supplement and dietary intervention shows promising results in a cohort of children with autism spectrum disorder (ASD). H. B. WALKER*. *Biomed Clin.*

- 3:00 T9 **799.03** Methylome and synaptic gene impacts of an organic pollutant in Dup15q syndrome. M. S. ISLAM*; K. DUNAWAY; D. SCHROEDER; I. PESSAH; M. HORIKE; S. HORIKE; J. LASALLE. *Univ. of California, Davis, Univ. of California, Davis, Kanazawa Univ.*
- 4:00 T10 **799.04** A hypothesis regarding the molecular mechanism underlying soy-induced seizures. C. J. WESTMARK*. *Univ. Wisconsin.*
- 1:00 T11 **799.05** Influence of pediatric vaccines on CNS development and behavior in the rhesus macaque: Relevance to autism. B. GADAD*; W. LI; U. YAZDANI; B. CURTIS; V. YUTUC; C. FERRIER; G. SACKETT; K. A. YOUNG; J. A. DARDEN; L. HEWITSON; D. C. GERMAN. *UT Southwestern Med. Ctr., Univ. of Washington, Texas A&M Hlth. Sci. Ctr., Johnson Ctr. for Child Hlth. and Develop.*
- 2:00 T12 **799.06** ▲ Prenatal fluoxetine exposure does not increase autism-related behaviors in adult mice. F. MALARKEY*; E. I. MESHREKY; N. J. MCGOVERN; J. P. HEAD; M. P. LEUSSIS. *Emmanuel Col., Emmanuel Col., Emmanuel Col.*
- 3:00 U1 **799.07** Blood biomarkers for Autism: Peptoids and proteins. D. C. GERMAN*; U. YAZDANI; S. SINGH; Y. DENG; S. ZAMAN; L. HEWITSON. *U Texas Southwestern Med. Ctr., Johnson Ctr. for Child Hlth. and Develop.*
- 4:00 U2 **799.08** ● Aluminum-induced gene expression alterations in mice brains. D. LI*; Y. LI; C. SHAW. *Univ. of British Columbia.*
- 1:00 U3 **799.09** Epigenetic modulation of BDNF transcription in the valproic acid model of autism. M. KONOPKO; A. DENSMORE; C. D. ROBY; B. K. KRUEGER*. *Univ. Maryland Sch. of Med., Univ. Maryland Sch. of Med., Univ. Maryland Sch. of Med.*
- 2:00 U4 **799.10** ▲ Prenatal fluoxetine exposure does not alter ultrasonic vocalizations but does improve performance on some neuromotor coordination tasks in 3-11 day-old mouse pups. J. M. THANOS*; E. M. WEBER; N. J. MCGOVERN; M. P. LEUSSIS. *Emmanuel Col.*
- 3:00 U5 **799.11** Prostaglandin E2 promotes earlier differentiation of neuroectodermal stem cells: A link to Autism. C. T. WONG*; N. USSYSHKIN; H. LI; D. A. CRAWFORD. *York Univ., York Univ., York Univ.*
- 4:00 U6 **799.12** Effects of thimerosal on the expression levels of ghrelin and its receptor genes in immature neuronal cells. E. M. SAJDEL-SULKOWSKA*. *Harvard Med. Sch/ BWH.*
- 2:00 U8 **800.02** ● Prolonged exposure to ketamine but not thiopental sodium might potentiate glutamate-induced neurotoxicity in rat primary cultured cortical neurons. S. SHIBUTA*; T. MORITA; T. KAMIBAYASHI; Y. FUJINO. *Osaka Univ. Grad Sch. Med.*
- 3:00 U9 **800.03** Estrogen administration modulates parvalbumin expression during trimethyltin-induced hippocampal neurodegeneration. F. MICHETTI*; V. CORVINO; E. MARCHESE; V. DI MARIA; F. BIAMONTE; M. GELOSO. *Univ. Cattolica S. Cuore, Univ. Cattolica S. Cuore, Univ. Cattolica S. Cuore.*
- 4:00 U10 **800.04** Characterisation of corticospinal tract termination patterns originating from the intact hemisphere following recovery from ischaemic stroke in the rat. E. J. MITCHELL*; D. DEWAR; D. J. MAXWELL. *Inst. of Neurosci. and Psychology.*
- 1:00 U11 **800.05** An open-label treatment with valproate for patients with acute middle cerebral artery infarction: Evidence for improved functional recovery. G. PENG*; J. LEE; C. CHOU; Y. SUNG; C. CHU; J. HONG; D. CHUANG. *Tri-Serv Gen Hosp, Tri-Service Gen. Hosp., Tri-Service Gen. Hosp., Natl. Def. Med. Ctr., Natl. Inst. of Environ. Hlth. Sci., NIH.*
- 2:00 U12 **800.06** Bilateral cortical hyperactivity detected by functional MRI associates with improved motor function following intravenous administration of mesenchymal stem cells in a rat stroke model. S. OKA*; M. SASAKI; J. SUZUKI; J. D. KOCSIS; O. HONMOU. *Sapporo Med. Univ., Sapporo Med. Univ., Yale Univ.*
- 3:00 U13 **800.07** Nogo-A neutralization improves visual recovery after partial excitotoxic damage of the retina. N. JORDI*; V. PERNET; S. JOLY; M. E. SCHWAB. *Brain Res. Inst.*
- 4:00 U14 **800.08** A limited time window for arm motor control recovery after stroke. J. C. CORTES; J. GOLDSMITH; M. D. HARRAN; J. XU; N. KIM; J. STEIN; A. LUFT; P. CELNIK; J. W. KRAKAUER; T. KITAGO*. *Columbia Univ., Columbia Univ., Johns Hopkins Univ., Columbia Univ., UZH ETH Zurich, Johns Hopkins Univ.*
- 1:00 U15 **800.09** The effects of targeted intracerebral saporin injection on recovery from stroke. A. BECKER*; M. GOLDBERG. *UT Southwestern, Dept. of Neurol. and Neurotherapeutics, UT Southwestern.*
- 2:00 U16 **800.10** Neuroprotection of the cembranoid 4R compound against stroke. A. H. MARTINS*; P. A. CORDOLIANI; L. A. LLOPART; D. PEREZ; Y. LI; B. D. FORD; V. A. ETEROVIC; P. A. FERCHMIN. *Univ. Central Del Caribe, Morehouse Sch. of Med.*
- 3:00 U17 **800.11** ● Neurorestorative therapy of stroke in type two diabetes rats treated with human umbilical cord blood cells. P. VENKAT*; T. YAN; M. CHOPP; A. ZACHAREK; R. NING; Y. CUI; C. ROBERTS; N. KUZMIN-NICHOLS; C. SANBERG; J. CHEN. *Henry Ford Hosp., Oakland Univ., Tianjin Neurolog. Inst., Saneron CCEL Therapeutics, Inc.*
- 4:00 U18 **800.12** Gender influences early gene expression after subarachnoid hemorrhage. F. A. SEHBA; D. KIM; V. L. FRIEDRICH JR*. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. At Mount Sinai.*
- 1:00 U19 **800.13** Assessment of cortical vascular responsivity to calcium channel blockers in the context of vasospasm after subarachnoid hemorrhage. D. Y. CHUNG*; M. A. SHAIK; S. H. KIM; M. G. KOZBERG; E. M. C. HILLMAN. *Columbia Univ.*

POSTER

800. Ischemia: Cellular Mechanisms and Neuroprotection V

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 U7 **800.01** Brain-derived estrogen exerts anti-inflammatory and neuroprotective actions in the rat hippocampus. Q. ZHANG*; R. WANG; H. TANG; Y. DONG; A. CHAN; D. BRANN. *Georgia Regents Univ., Charlie Norwood Dept. of Veteran Affairs Med. Ctr., Neurobio. Inst. of Med. Res. Center, Hebei United Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 U20 **800.14** PTEN-induced kinase 1 (PINK1) and protein kinase A (PKA) form a new neuroprotective signaling axis. R. K. DAGDA*; T. DAS BANERJEE; R. Y. DAGDA; G. L. CRAVISO; A. PHAM. *Univ. of Nevada Sch. of Med., Univ. of Nevada Sch. of Med.*
- 3:00 U21 **800.15** Isoform-specific NOS inhibition preserves axon function against ischemia in an age-dependent manner by enhancing free radical scavenging and preserving mitochondrial structure and function. C. BASTIAN*; J. ZALESKI; A. RUNKLE; S. BRUNET; S. BALTAN. *Cleveland Clin. Fndn.*
- 4:00 U22 **800.16** mitoNEET agonist NL-1 promotes cell proliferation in hippocampal dentate gyrus. A. MDZINARISHVILI*; R. T. CARROLL; W. J. GELDENHUYS. *Northeast Ohio Med. Univ.*
- 1:00 U23 **800.17** Investigation of desferrioxamine-induced adaptive responses in human neuronal cells. J. CANDELORA; F. L. RASMUSSEN; A. HERRERA; J. L. KO*. *Seton Hall Univ.*
- 2:00 U24 **800.18** BNIP3 interacting with LC3 triggers excessive mitophagy. R. SHI*; S. ZHU; V. LI; S. B. GIBSON; X. XU; J. KONG. *Univ. of Manitoba, Univ. of Manitoba, Univ. of British Columbia, Univ. of Manitoba, Soochow Univ.*
- 3:00 U25 **800.19** The impact of metabolic syndrome on cortical microvasculature - form and function. M. GOMEZ-SMITH*; C. NGUEMENI; M. JEFFERS; A. DORR; B. STEFANOVIC; D. CORBETT. *Univ. of Ottawa, Canadian Partnership for Stroke Recovery, Univ. of Ottawa, Sunnybrook Res. Inst., Univ. of Toronto, Mem. Univ., Univ. of Toronto.*
- 4:00 U26 **800.20** Degradation of collagen XV by tissue plasminogen activator may be protective after stroke. H. DHUNGANA; M. HUUSKONEN; T. PIHLAJANIEMI; R. HELJASVAARA; J. PARCQ; Y. POMESHCHIK; P. KORHONEN; T. MALM; K. KANNINEN; V. KEKSA-GOLDSTEINE; M. PRUVOST; D. VIVIEN; J. KOISTINAHO*; S. LEMARCHANT. *Univ. of Eastern Finland, Univ. of Oulu, Univ. of Caen Basse-Normandie.*
- 1:00 U27 **800.21** Characterization of the glycoprotein dickkopf-3 in cerebral blood vessels of spontaneously hypertensive rats. C. L. BUSCETI*; S. MARCHITTI; M. COTUGNO; P. DI PIETRO; F. BIANCHI; B. RIOZZI; S. SCARPINO; R. STANZIONE; M. MADONNA; S. DI CASTRO; G. BATTAGLIA; V. BRUNO; S. RUBATTU; M. VOLPE; F. NICOLETTI. *I.R.C.C.S. Neuromed, Univ. Sapienza, Univ. Sapienza, LIA (International Associated Laboratories), Univ. Sapienza.*
- 2:00 U28 **800.22** Ethyl pyruvate inhibits HMGB1 phosphorylation and release by chelating calcium. J. LEE*; H. LEE; I. KIM; L. LUO; H. LEE; S. KIM. *Inha Univ. Sch. Med.*
- 2:00 U30 **801.02** *In vivo* mir-155 inhibition supports recovery after mouse stroke. E. CABALLERO-GARRIDO*; J. PENA-PHILIPPIDES; Y. YANG; D. BRAGIN; T. ROITBAK. *Univ. of New Mexico, Univ. of New Mexico BRAIN Imaging Ctr.*
- 3:00 U31 **801.03** Scanning and transmission electron microscopy of the glial scar after stroke. T. V. NGUYEN; J. BEISCHEL FRYE; O. M. HUSSEIN; K. P. DOYLE*. *Univ. of Arizona, Arizona Ctr. on Aging.*
- 4:00 U32 **801.04** Myeloperoxidase inhibition improved neuroprotective and beneficial effects after ischemic stroke. H. KIM*; J. CHEN; G. WOJTKIEWICZ; L. BURE; W. YING; M. MOSKOWITZ; J. LEE. *Mass Gen. Hosp. Harvard Med. Univ., Massachusetts Gen. Hosp. Ctr. for Systems Biol., Massachusetts Gen. Hosp., Neurosci. Ctr. at Massachusetts Gen. Hosp., George Washington Med. Washington.*
- 1:00 U33 **801.05** The gene silencing transcription factor REST represses miR-132 expression in hippocampal neurons destined to die. J. HWANG*; N. KANEKO; K. NOH; F. PONTARELLI; R. S. ZUKIN. *Albert Einstein Col. Med.*
- 2:00 U34 **801.06** Role of serum- and glucocorticoid-regulated kinases in stroke. K. INOUE*; T. YANG; Z. ZENG; Z. XIONG. *Neurosci. Institute, Morehouse Sch. of Med.*
- 3:00 U35 **801.07** Contribution of the contralesional sensorimotor cortex to the motor recovery in the rat brain after focal ischemia. S. MOMMA*; M. GOTO; S. TOMOKO; T. MIKAMI; A. MITANI. *Kyoto Univ., Biotex Res. Lab.*
- 4:00 U36 **801.08** Optogenetic inhibition of striatum neurons promotes neurogenesis after ischemic stroke through GABA-A receptor. Y. WANG*; X. HE; Y. LU; L. JIANG; Z. ZHANG; G. YANG. *Shanghai Jiao Tong Univ., Shanghai Jiao Tong Univ.*
- 1:00 V1 **801.09** CLIC4 translocation is implicated in the development of Perinatal Brain Injury. C. THORNTON*; U. RUETSCHI; R. VONTELL; P. GRESSENS; H. ZETTERBERG; H. HAGBERG. *Ctr. For the Developing Brain, KCL, Sahlgrenska Academy, Univ. of Gothenburg, INSERM, U676.*
- 2:00 V2 **801.10** Negative regulation of autophagic cell death by calpain upon proteasome inhibition in adult hippocampal neural stem cells. K. CHUNG*; H. PARK; S. JUNG; S. HA; S. YOO; H. WOO; E. KIM; C. MOON; S. YU. *Daegu Gyeongbuk Inst. of Sci. & Technol.*
- 3:00 V3 **801.11** Reduced COX expression and metabolic adjustments in 3- nitropropionic acid-induced ischemia tolerance in the rat brain. O. BRACKO; V. DI PIETRO; G. LAZZARINO; A. M. AMORINI; B. TAVAZZI; J. ARTMANN; E. C. WONG; R. B. BUXTON; M. WELLER; A. LUFT; S. WEGENER*. *Univ. Hosp. Zurich, Univ. of Birmingham, Catholic Univ. of Rome, Univ. Hosp. Zurich, Univ. of California San Diego, Univ. of California San Diego.*
- 4:00 V4 **801.12** Myeloperoxidase increases risk of formation and rupture of cerebral aneurysms. Y. CHU*; G. L. PIERCE; G. CHENG; L. WEGMAN-POINTS; H. GU; K. WILSON; R. A. PENA SILVA; F. M. FARACI; D. D. HEISTAD; D. HASAN. *Univ. of Iowa, Univ. of Alabama Sch. of Med., Univ. de los Andes Sch. of Med.*

POSTER

801. Ischemia: Cellular Mechanisms and Neuroprotection VI

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 U29 **801.01** Human cerebral microvascular endothelium: Linoleoyl ethanolamide, a novel natural lipid substance, is a potential vasodilator. P. CASTRI; T. KINO; Y. CHEN; R. ABUTARBOUSH; F. LENZ; E. SHOHAMI; R. MECHOULAM; R. MCCARRON; M. SPATZ*. *NIH-NINDS, Naval Med. Res. Ctr., Johns Hopkins Univ., Hebrew Univ.*

POSTER

802. Ischemia: Cellular Mechanisms and Neuroprotection VII

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 V5 **802.01** Protease activated receptor-mediated mechanisms of axon injury and neuron degeneration. H. YOON*; M. RADULOVIC; I. A. SCARISBRICK. *Mayo Clin., Mayo Clin.*
- 2:00 V6 **802.02** Dysfunction, recovery, and hyperexcitability in the acute phase of ischemic stroke. E. G. WANN*; N. S. JACOBS; R. D. FROSTIG. *Univ. California Irvine.*
- 3:00 V7 **802.03** Intra-arterial delivery of mesenchymal stem cell protects brain from stroke injury via brain-derived growth factor (BDNF) signaling. D. R. YAVAGAL*; P. BHATTACHARYA; R. LOPEZ; A. KHAN; M. PEREZ-PINZON; J. M. HARE; A. P. RAVAL. *Univ. of Miami, Univ. of Miami Miller Sch. of Medicine., Univ. of Miami Miller Sch. of Medicine.*
- 4:00 V8 **802.04** The role of the NOD-like receptor, Nlr1 in neuroprotection and neuronal cell death. E. IMBEAULT*; T. M. MAHVELATI; D. GRIS. *Univ. De Sherbrooke, Univ. de Sherbrooke.*
- 1:00 V9 **802.05** Roles of oxygen treatment in the development of ischemic brain injury, signal transduction and brain microcirculation after focal cerebral ischemia. M. C. BEKER*; A. B. CAGLAYAN; T. KELESTEMUR; E. YALCIN; G. OZTURK; E. KILIC. *Istanbul Medipol Univ.*
- 2:00 V10 **802.06** Aerobic exercise is as effective as skilled reach training in improving functional recovery following ischemic insult in C57BL/6 mice. A. L. KERR*; T. MUELLER; M. DOMINGUEZ; R. HOLDEN; M. CURTIS; B. WALL. *Illinois Wesleyan Univ., Illinois Wesleyan Univ.*
- 3:00 V11 **802.07** Mechanisms of p75NTR-dependent peri-infarct denervation. D. C. PARRISH; B. L. HEMPSTEAD; A. NYKJAER; B. A. HABECKER*. *OHSU, Weill Cornell Med. Col., Aarhus Universitet.*
- 4:00 V12 **802.08** Hydrogen peroxide impairs GABA-dependent motor behavior in *Caenorhabditis elegans*. L. HERNANDEZ*; G. CAMARGO-HERNANDEZ; A. LOMELI-SILVA; M. A. RAMIREZ-HERRERA; A. HERNANDEZ-CHAVEZ. *Univ. de Guadalajara, Univ. de Guadalajara, Univ. de Guadalajara.*
- 1:00 V13 **802.09** An introduction of photothrombotic focal cerebral ischemia model in the adult zebrafish. X. YU*; Y. V. LI. *Ohio Univ.*
- 2:00 V14 **802.10** Mitochondrial and cytosolic hydrogen peroxide and glutathione in pyramidal cells and astrocytes in hippocampal area CA1 respond to oxygen-glucose deprivation. B. YIN; N. POVYSHEVA; G. BARRIONUEVO; S. WEBER*. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 3:00 V15 **802.11** Oxidative stress and neuronal death in non-coma hypoglycemia. N. G. LANGUREN*; T. MONTIEL; A. JULIO-AMILPAS; L. MASSIEU. *Inst. De Fisiologia Celular, UNAM.*
- 4:00 V16 **802.12** The beta-pix - rac1 - cofilin pathway after brain ischemia. T. LUO; C. LIU; Y. PARK; I. SABIRZHANOVA; B. HU*. *Univ. of Maryland.*

- 1:00 V17 **802.13** Effect of cerebral ischemia on behavioral outcomes in insulin-treated diabetic rats exposed to recurrent hypoglycemia. V. SHUKLA; P. FUCHS; A. LIU; K. SERDAHELY; P. REDDY; K. DAVE*. *Univ. Miami Sch. Med.*
- 2:00 V18 **802.14** Behavioral, physiological and neuroanatomical changes following a focal ischemic damage in the mouse motor cortex. C. ALIA*; C. SPALLETI; S. LAI; A. PANARESE; A. GHIONZOLI; S. MICERA; M. CALEO. *CNR - Inst. Di Neuroscienze, Scuola Normale superiore, Scuola Superiore Sant'Anna, Scuola Superiore Sant'Anna, Ecole Polytechnique Federale de Lausanne (EPFL).*
- 3:00 V19 **802.15** A non-ionotropic activity of GluN2A-containing NMDA receptor confers neuroprotection. B. J. LUJAN*; R. HU; Q. WAN. *Univ. of Nevada Med. Sch., Southwest Hosp., Wuhan Univ.*
- 4:00 V20 **802.16** The multi-herbal mixture HT047 improves functional recovery after focal cerebral ischemia in rats. J. SONG*; D. LEE; H. KIM; H. LEE; H. KIM. *Kyunghee Univ.*
- 1:00 V21 **802.17** Third ventricle neural stem cell niche dynamics following focal ischemic lesion. R. BRONSTEIN; S. E. TSIRKA*. *Stony Brook Univ. Med. Ctr., Stony Brook Univ. Med. Ctr.*

POSTER

803. Ischemia: Inflammation

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 V22 **803.01** Differential CSF-derived microparticle protein expression in humans with cerebral vasospasm after aneurysmal subarachnoid hemorrhage. M. M. SZYMANSKA*; W. W. ASHLEY, JR. *Loyola Univ. Med. Ctr.*
- 2:00 V23 **803.02** Glial responses and neuroregeneration in a pediatric model of ischemic stroke. J. T. AHRENDSEN*; H. GREWAL; R. J. TRAYSTMAN; P. S. HERSON; W. B. MACKLIN. *Univ. of Colorado, Univ. of Colorado, Univ. of Colorado.*
- 3:00 V24 **803.03** Lymphocytes bioenergetics after stroke: A functional proteomic study. F. FERRARI*; D. GEROLDI; A. GORINI; G. PERO; R. F. VILLA. *Univ. of Pavia, San Matteo Hosp. - Univ. of Pavia, Niguarda Hosp. Ca' Granda.*
- 4:00 V25 **803.04** ▲ Pharmacological evaluation of the antinociceptive and anti-inflammatory activities of limonene and nerol in the oxazolone-induced colitis model. A. E. GONZÁLEZ-RAMÍREZ*; F. LOPEZ MUÑOZ; M. GONZALEZ TRUJANO. *Ctr. De Investigación Y De Estudios Avanzados Del IPN, Instituto Nacional de Psiquiatría Ramón de la Fuente Muñiz.*
- 1:00 V26 **803.05** ▲ Diosmin reverses hyperalgesia in a model of neuropathic pain in rats involving the opioidergic system. A. CARBALLO*; M. GONZÁLEZ-TRUJANO; F. J. LÓPEZ-MUÑOZ. *Ctr. De Investigación Y De Estudios Avanzados Del IPN, Inst. Nacional de Psiquiatría Ramón de la Fuente Muñiz.*
- 2:00 V27 **803.06** Dyad of CD40/CD40 ligand fosters neuroinflammation and cognitive impairment: Implications for sepsis-associated encephalopathy. F. PETRONILHO*; M. MICHELS; A. VIEIRA; D. FLORENTINO; D. ZAPELINI; M. MODOLON; F. MINA; G. Z. REUS; D. D. LEFFA; T. BARICHELLO; F. DAL-PIZZOL; J. QUEVEDO. *Univ. of Texas Hlth. Sci. Ctr. At Houst, Univ. do Sul de Santa Catarina, Univ. do Extremo Sul Catarinense.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 V28 **803.07** Spatiotemporal profile of blood monocyte subsets accumulation in the post-ischemic brain. L. GARCIA-BONILLA*; G. FARACO; J. MOORE; D. BREA; G. RACCHUMI; C. IADECOLA; J. ANRATHER. *Weill Cornell Med. Col.*
- 4:00 V29 **803.08** Protective role of high mobility group box 1-toll-like receptor 2 axis on ischemia-induced oligodendrocyte death. J. CHOI*; B. G. KIM. *Inst. For Med. Sciences, Ajou Univ. Sch. of Med., Ajou Univ. Sch. of Med., Ajou Univ. Grad. Sch. of Med., Ajou Univ. Sch. of Med.*
- 1:00 V30 **803.09** Acute and chronic exposure to ozone produce lipid peroxidation in rat hippocampus. M. L. MENDOZA-MAGANA*; J. J. RAMIREZ-VAZQUEZ; M. A. RAMIREZ-HERRERA; J. C. FRIAS-MARQUEZ; A. A. RAMIREZ-MENDOZA; G. CAMARGO-HERNANDEZ. *Univ. Guadalajara Ctr. Univ. Ciencias Salud.*

POSTER

804. Ischemia: Neuroprotection II

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 V31 **804.01** Distribution of β -hydroxybutyrate (bhb) in cd-1 mice after experimental stroke. K. A. KOCH*; J. KONIETZKA; D. BERRESSEM; G. ECKERT; J. KLEIN. *Goethe Univ. Frankfurt Am Main.*
- 2:00 V32 **804.02** Recombinant NAMPT exerts neuroprotective effects against cerebral ischemia. X. R. CHEN*; Z. JING; A. STETLER; Y. LUO; X. JI; S. H. GRAHAM; G. CAO. *Univ. of Pittsburgh Sch. of Med., Veterans Affairs Pittsburgh Healthcare Syst., Xuanwu Hospital, Capital Med.*
- 3:00 W1 **804.03** 2-Arachidonoylglycerol protects the retina from AMPA excitotoxicity *in vivo* via the activation of CB1 receptor. Involvement of the PI3K/Akt signaling pathway. D. KOKONA*; A. ZIMMER; K. THERMOS. *Univ. of Crete, Univ. of Bonn.*
- 4:00 W2 **804.04** ▲ A single, intravenous injection of minocycline prior to aortic occlusion is sufficient to reduce severe hind-limb motor impairment, attenuate spinal astrogliosis, and preserve neuronal cytoarchitecture in rats. E. JAFFREY; A. SIDERIS*; B. PISKOUN; T. J. J. BLANCK; B. DRENGER; E. RECIO-PINTO. *NYU CAS, NYU Langone Med. Ctr., NYU Langone Med. Ctr., Hadassah-Hebrew Univ. Med. Ctr., NYU Langone Med. Ctr.*
- 1:00 W3 **804.05** ● Dodecafluoropentane emulsion extends the time for effective tPA stroke therapy. R. D. SKINNER*; C. ARTHUR; A. T. BROWN; J. LOWERY; W. C. CULP. *Univ. Arkansas Med. Sci., Univ. Arkansas Med. Sci., Univ. Arkansas Med. Sci.*
- 2:00 W4 **804.06** Hsp70 inhibits dynamin expression: A new mechanism of protection in cerebral ischemia? N. KIM*; J. KIM; J. LEE; M. A. YENARI. *UCSF, Yonsei Univ.*
- 3:00 W5 **804.07** Cerium oxide nanoparticles improve survival and motor function in a *Drosophila* model of stroke. J. A. BATES; B. LOCKLER; K. S. HOCKEY*; C. A. SHOLAR; J. COOK; A. S. FREY; M. J. BILLINGS; B. A. RZIGALINSKI. *Virginia Coll of Osteo. Med.*
- 4:00 W6 **804.08** PELP1 - a major scaffold protein for efficient non-genomic estrogen signaling in the brain. R. D. THAKKAR*; Q. ZHANG; Y. DONG; H. TANG; R. VADLAMUDI; D. BRANN. *Georgia Regents Univ., Univ. of Texas Hlth. Sci. Ctr. at San Antonio.*
- 1:00 W7 **804.09** Neuroprotective effects of cilostazol through the multi-mechanisms in mice permanent focal ischemia. H. SHICHINOHE*; T. YAMAUCHI; H. SAITO; T. ABUMIYA; K. HOUKIN; S. KURODA. *Hokkaido Univ., Univ. of Toyama.*
- 2:00 W8 **804.10** Vitexin protects brain against ischemia/reperfusion injury via modulating mitogen-activated protein kinase and apoptosis signaling in mice. G. ZHANG*; L. DONG; Y. WANG; Q. JIANG; Y. ZHEN. *Anhui Med. Univ.*
- 3:00 W9 **804.11** L-carnitine enhances axonal plasticity and improves white matter lesions after chronic hypoperfusion in rat brain. Y. UENO*; M. KOIKE; Y. SHIMADA; H. SHIMURA; K. HIRA; Y. UCHIYAMA; N. HATTORI; T. URABE. *Juntendo Univ. Sch. of Med., Juntendo Univ. Sch. of Med., Juntendo Univ. Sch. of Med., Juntendo Univ. Urayasu Hosp.*
- 4:00 W10 **804.12** Neuronal expression of GPR3 in rodent brain is associated with cell survival. S. TANAKA*; T. MIYAGI; I. HIDE; T. SHIRAFUJI; N. SAKAI. *Hiroshima Univ. Sch. of Biomed. Sci.*
- 1:00 W11 **804.13** Black rice extract ameliorates bilateral common carotid artery occlusion-induced memory impairment in mice. S. HWANG; J. KIM; S. YOON*; M. I. H. BHUIYAN; J. KIM; S. KIM. *Catholic Univ. of Korea, Catholic Univ. of Korea, Catholic Univ. of Korea, Catholic Univ. of Korea.*
- 2:00 W12 **804.14** The effects of anti-oxidants on experimental cerebral ischemia in the rat. J. PARK; J. KIM; S. LEE; K. LEE; K. PARK; W. LEE; J. LEE*. *Yonsei Univ. Col. of Med., BK21 Plus Project for Med. Science, and Brain Res. Inst., Seoul Natl. Univ.*
- 3:00 W13 **804.15** The glial neuropeptide ODN worsens excitotoxic and ischemic cell death *in vivo*. R. LAMTAHRI*; B. LEFRANC; D. VAUDRY; J. LEPRINCE; J. CHUQUET. *INSERM U982, Univ. of Rouen, INSERM U982.*
- 4:00 W14 **804.16** ● Intranasal salvinorin A reduces cerebral ischemia/reperfusion injury in mouse middle cerebral artery occlusion model. C. CHEN; C. XI; J. MA; T. ABEL; R. LIU*. *Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 1:00 W15 **804.17** Effect of mannitol on neurogenesis in a model of ischemic stroke. Y. CRUZ*; J. KIM; V. GÁLVEZ; E. GARCÍA-VENECES; A. IBARRA. *Univ. Anáhuac, INMEGEN.*
- 2:00 W16 **804.18** The sphingosine 1-phosphate receptor agonist FTY720 (Fingolimod) provides neuroprotection against experimental stroke in aged rodents. M. A. YENARI*; M. KAWABORI; Z. ZHENG; J. S. KARLINER. *Univ. California, San Francisco and San Francisco Veterans Affairs Med. Ctr., SF VAMC and UCSF, SF VAMC and UCSF.*
- 3:00 W17 **804.19** Effect of low dose of recombinant human erythropoietin (rhEpo) administered intranasally on MAPK-mediated signaling regulating the transition of G1 / S on brain ischemia/reperfusion injury in adult rats. R. CASTAÑEDA ARELLANO*; A. FERIA-VELASCO; M. UREÑA GUERRERO; M. RIVERA-CERVANTES. *Univ. de Guadalajara.*
- 4:00 W18 **804.20** Glucosamine neuroprotection in a rat model of cerebral ischemia: Molecular mechanisms at play. J. RENGIFO*; A. VERA; C. F. CARDOZO; M. J. CRUZ; L. I. MOSQUERA; E. VIVEROS; C. A. ARANGO. *Univ. Icesi, Univ. de Caldas, Univ. Icesi.*

- 1:00 W19 **804.21** Mechanisms of neuroinflammation in rat model of subarachnoid hemorrhage. C. TOSUN*; C. HONG; D. KURLAND; V. GERZANICH; M. SIMARD. *Univ. of Maryland In Baltimore, Univ. of Maryland Baltimore.*
- 2:00 W20 **804.22** Omega-3 polyunsaturated fatty acids enhance cerebral angiogenesis and provide long-term protection after stroke. L. HAN*; Y. SHI; Y. SHI; L. ZHANG; L. ZHANG; F. ZHANG; F. ZHANG; X. HU; X. HU; W. ZHANG; R. K. LEAK; R. K. LEAK; Y. GAO; Y. GAO; J. CHEN; J. CHEN. *Univ. of Pittsburgh, Veterans Affairs Pittsburgh Hlth. Care Syst., Dept. of Neurology, Affiliated Drum Tower Hosp. of Nanjing Univ. Med. Sch., Ctr. of Cerebrovascular Dis. Research, Univ. of Pittsburgh Sch. of Med.*
- 3:00 W21 **804.23** Resveratrol increases phosphorylated AMPK in cerebral ischemia. N. PINEDA-RAMIREZ; A. ORTIZ-PLATA; J. PEDRAZA-CHAVERRI; P. AGUILERA*; M. ESPINOZA-ROJO. *Inst. Nacional de Neurologia y Neurocirugia, Univ. Nacional Autónoma de México, Univ. Autónoma de Guerrero.*

POSTER

805. Ischemia: Cellular Mechanisms and Neuroprotection VIII

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 W22 **805.01** Cortical microcirculation in a mouse model of subarachnoid hemorrhage. K. SCHUELLER*; N. PLESNILA. *ISD.*
- 2:00 W23 **805.02** Adenosine a2b agonist inhibits hemorrhagic transformation induced by tpa after cerebral ischemia. Q. LI*; C. CHANG; X. HAN; R. KOEHLER; Y. ZHAI; J. WANG. *Shanghai Jiao Tong Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*
- 3:00 W24 **805.03** tPA interacts with the ER stress response to protect neurones during cerebral ischaemia. M. LOUESSARD; D. VIVIEN; C. ALI; B. D. ROUSSEL*. *INSERM U919.*
- 4:00 W25 **805.04** Neuroprotection by inhibition of p53 after asphyxial cardiac arrest involves autophagic and apoptotic mechanisms in rat hippocampus. D. CUI*; H. SHANG; W. NI; Y. XU; X. ZHANG; W. JIANG; U. BHALALA. *Shanghai Sixth People's Hosp., Johns Hopkins Univ. Sch. of Med., Shanghai Ruijin Hosp. Affiliated with Med. Sch. of Shanghai Jiaotong Univ., Johns Hopkins Univ. Sch. of Med.*
- 1:00 W26 **805.05** ● Do allografts of rat umbilical cord blood cells decrease infarct size to the same extent as human umbilical cord blood cell xenografts after middle cerebral artery occlusion in the rat? A. E. WILLING*; J. D. NEWCOMB; S. GARBUZOVA-DAVIS; P. R. SANBERG. *Univ. South Florida.*
- 2:00 W27 **805.06** The origin of self-renewing stem cells in the cortex after stroke. M. FAIZ*; N. SACHEWSKY; R. DESAI; C. MORSHEAD; A. NAGY. *Mount Sinai Hosp., The Donnelly Ctr.*
- 3:00 W28 **805.07** Glutamate metabolism by inducible glutamate oxaloacetate transaminase protects stroke-affected brain. S. KHANNA*; S. GNYAWALI; J. WEIST; S. ROY; C. K. SEN; C. L. RINK. *Ohio State Univ.*
- 4:00 W29 **805.08** The roles of HIF-1α and VEGF in blood brain barrier damage during acute cerebral ischemia. X. JIN*; Y. SUN; Y. LIU; H. SHU. *Soochow Univ., Soochow Univ.*

- 1:00 W30 **805.09** Nicotinamide phosphoribosyltransferase protects white matter injury in cerebral ischemia. Z. JING*; J. XING; X. CHEN; R. A. STETLER; Z. WENG; Y. GAN; F. ZHANG; Y. GAO; R. K. LEAK; J. CHEN; G. CAO. *Univ. of Pittsburgh, Veterans Affairs Pittsburgh Healthcare Syst., Fudan Univ., Duquesne Univ.*
- 2:00 W31 **805.10** Proinflammatory role of Receptor Interacting Protein-3 (RIP3) in Ischemia induced neuronal cell death. D. C. GILLIS*; S. KIM; J. LI. *Texas A&M Univ.*

POSTER

806. Microglia in Neuroinflammation and Neuroprotection

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 W32 **806.01** Hyperoxia activates microglia but reduces apoptosis in the neonatal rat brain. Y. PANG*; L. TIEN; X. DAI; J. SHEN; Z. ZHU; A. BHATT; L. FAN. *Univ. Mississippi Med. Ctr., Fu Jen Catholic Univ., Univ. of Mississippi Med. Ctr.*
- 2:00 W33 **806.02** Computational modeling of cytokine signaling in microglia. W. D. ANDERSON*; H. MAKADIA; J. SCHWABER; R. VADIGEPALLI. *Thomas Jefferson Univ.*
- 3:00 W34 **806.03** Idebenone stimulates mitochondrial respiration and attenuates nitric oxide production by activated microglial cells. E. A. BORDT*; P. STUDLACK; M. HANSCOM; S. X. GE; B. M. POLSTER. *Univ. of Maryland Sch. of Med., Univ. of Maryland Shock, Trauma and Anesthesiol. Res. (STAR) Organized Res. Ctr.*
- 4:00 W35 **806.04** Liver X receptor-dependent inhibition of microglial inducible nitric oxide synthase. U. OH*; J. MCVOY. *Virginia Commonwealth Univ. Sch. of Med.*
- 1:00 W36 **806.05** The role of macrophage scavenger receptor A (SR-A) in macrophage polarisation. A. D. GREENHALGH*; A. KRONER; S. DAVID. *McGill Univ., Res. Inst. of the McGill Univ. Hlth. Ctr.*
- 2:00 X1 **806.06** ● ▲ The role of Galectin-3 in α-synuclein-induced microglial activation. A. BOZA-SERRANO*; J. REYES; N. REY; H. LEFFLER; L. BOUSSET; U. NILSSON; P. BRUNDIN; J. VENERO RECIO; M. BURGUILLAS; T. DEIERBORG. *Lund Univ., Lund Univ., Van Andel Inst., Lab. d'Enzymologie et Biochimie Structurales, Ctr. for Analysis and Synthesis, Univ. de Sevilla, Karolinka Institutet.*
- 3:00 X2 **806.07** Sema3A-Plexin-A1 interaction is crucial for Toll-like receptor-mediated microglial activation in the development of lipopolysaccharide-induced encephalopathy. T. ITO*; K. YOSHIDA; T. NEGISHI; K. YUKAWA. *Meijo Univ., Meijo.*
- 4:00 X3 **806.08** WITHDRAWN.
- 1:00 X4 **806.09** Doxycycline reduces the inflammatory response of LPS-treated microglial cells. S. B. SOCIAS; I. OUIDJA; F. SANTA CECÍLIA; J. E. SEPÚLVEDA DÍAZ; T. M. CUNHA; E. DEL-BEL; S. HUNOT*; P. P. MICHEL; R. RAISMAN-VOZARI. *ICM - INSERM/UPMC Umr_s1127 - CNRS UMR 7225, Natl. Univ. of Tucuman, CRICM - INSERM/UPMC Umr_s975 - CNRS UMR 7225, Fac. of Med. of Ribeirão Preto - Univ. of São Paulo, Univ. of São Paulo - Dent. Sch. of Ribeirão Preto.*

Wed. PM

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 X5 **806.10** APOBEC1-mediated RNA editing in microglia and its consequences for inflammation in the brain. N. PAPAVALIOU; Y. CHUNG; K. GAGNIDZE; J. GAL-TOTH; V. RAYON; K. BULLOCH*. *The Rockefeller University, The Rockefeller Univ., The Rockefeller Univ.*
- 3:00 X6 **806.11** IL-1 signaling exacerbates brain injury following seizurogenic exposure to the nerve agent soman (GD) in mice. T. F. BOWENS*; M. A. GUIGNET; J. F. IRWIN; K. LAITIPAYA; M. D. WEGNER; E. A. JOHNSON. *Uniformed Services Univ. of the Hlth. Sci., USAMRICD, USAMRICD.*
- 4:00 X7 **806.12** Cell-type-specific inflammatory-induced changes in dorsal horn synaptic transmission. P. BELAN; V. KROTOV; O. KOPACH; N. V. VOITENKO*. *Bogomoletz Inst. of Physiol., Bogomoletz Inst. of Physiol.*
- 1:00 X8 **806.13** Brain region-specific alterations in the expression of cytokines, microglia and astrocyte markers, and cholinergic system components during lethal inflammation. H. A. SILVERMAN; M. DANCHO; A. REGNIER-GOLANOV; M. NASIM; M. OCHANI; P. S. OLOFSSON; M. AHMED; E. MILLER; S. S. CHAVAN; E. GOLANOV; C. N. METZ; K. J. TRACEY; V. PAVLOV*. *The Feinstein Inst. for Med. Res., Hofstra North Shore-LIJ Sch. of Med. at Hofstra Univ., Baylor Col. of Med., North Shore-LIJ Hlth. Syst., North Shore-LIJ Hlth. Syst., The Feinstein Inst. for Med. Res., The Houston Methodist Res. Inst., The Feinstein Inst. for Med. Res.*
- 2:00 X9 **806.14** Neuroinflammation and neuroprotection following acute soman-induced seizure in mice. J. F. IRWIN*; M. A. GUIGNET; K. LAITIPAYA; T. F. BOWENS; M. D. WEGNER; E. A. JOHNSON. *USAMRICD, USAMRICD, USAMRICD.*
- 3:00 X10 **806.15** Characterization of inflammatory response after mouse spinal cord injury. I. FRANCOS-QUIJORNA*; R. LOPEZ-VALES. *Univ. Autonoma De Barcelona, Univ. Autonoma De Barcelona.*
- 4:00 X11 **806.16** Microglial activation in cardiovascular autonomic centers of diet-induced obese mice. L. J. CHAAR*; A. COELHO; W. T. FESTUCCIA; V. R. ANTUNES. *Univ. of Sao Paulo.*
- 1:00 X12 **806.17** Neuroinflammation and neuroprotection following acute soman-induced seizure in mice. E. A. JOHNSON*; M. A. GUIGNET; J. F. IRWIN; K. LAITIPAYA; T. F. BOWENS; M. D. WEGNER. *US Army Med. Res. Inst. of Chem. Def., US Army Med. Res. Inst. of Chem. Def.*
- 2:00 X13 **806.18** Toll-like receptor 4 regulates prooxidant-mediated release of prostaglandin E2 and resovon in macrophages. Y. ZHANG*; O. J. IGWE. *Univ. of Missouri-Kansas City.*
- 2:00 X15 **807.02** The transcription factor C/EBP δ regulates human brain pericyte inflammatory responses. J. RUSTENHOVEN; T. PARK; D. JANSSEN; R. OLDFIELD; P. S. BERGIN; E. W. MEE; R. L. M. FAULL; M. DRAGUNOW*. *Univ. of Auckland, Lab. Plus, Auckland City Hosp.*
- 3:00 X16 **807.03** Redox control of neuroinflammation by post-translational activation of glutamate cysteine ligase. P. BHUYAN*; L. LIANG; M. PATEL. *Univ. of Colorado Denver.*
- 4:00 X17 **807.04** Neuroprotection by long-chain fatty acids in trauma: the control of neuroinflammation. S. CUZZOCREA; I. PATERNITI; D. IMPELLIZZERI; R. DI PAOLA; M. CAMPOLO; M. CORDARO; R. SIRACUSA; E. ESPOSITO; P. L. CANONICO*. *Univ. of Messina, Univ. Piemonte Orientale.*
- 1:00 X18 **807.05** Oxidative stress and increased inflammatory response is associated with APP over-expression in astrocytes acutely exposed *in vitro* to MMA III. C. ESCUDERO-LOURDES*; I. ROJAS-BARAJAS; E. E. URESTI-RIVERA; M. TORRES-RAMOS. *Univ. Autonoma De San Luis Potosi, Inst. Nacional de Neurologia y Neurocirugia.*
- 2:00 X19 **807.06** Roles for nicotinic acetylcholine receptors in modulation of inflammation and immunity. R. J. LUKAS*; A. SIMARD; B. J. MORLEY; Q. LIU; L. LUCERO; P. WHITEAKER; F. SHI. *Barrow Neurol Inst., Univ. of Moncton, Boys Town Natl. Res. Hosp.*
- 3:00 X20 **807.07** Anti-neuroinflammatory effects of paeonol in microglial cells. C. LIN*; C. TSAI; Y. LIU; D. LU. *China Med. Univ., Asia Univ., China Med. Univ., China Med. Univ.*
- 4:00 X21 **807.08** Inhibitors of the mitochondrial fission GTPase Drp1 attenuate proinflammatory microglial activation by an unknown mechanism. B. M. POLSTER*; E. A. BORDT; B. A. ROELOFS. *Univ. Maryland Sch. of Med., Univ. Maryland Sch. of Med.*
- 1:00 X22 **807.09** Enhanced expression of glycoprotein non-metastatic melanoma B in macrophages and microglia in inflamed rat brain. J. HUANG; S. YOKOYAMA*. *Kanazawa Univ.*
- 2:00 X23 **807.10** Hmox1 and EP2 signaling regulate IL-13 - induced death of activated microglia: A potential pathway for resolution of inflammation. Y. FU; M. YANG*; K. MIN; T. GANESH; N. LELUTIU; E. JOE; R. DINGLEDINE. *Emory Univ., Ajou Univ.*
- 3:00 X24 **807.11** WWL70 attenuates inflammatory response by blocking prostaglandin production in microglial cells. M. TANAKA*; J. WEN; S. MORAN; Y. ZHANG. *USUHS, USUHS.*
- 4:00 Y1 **807.12** Anti-inflammatory effects of ketamine on microglia activation. T. KHAYRULLINA*; M. H. SCHMIDT; R. G. W. STAAL; N. PLATH; T. MÖLLER. *Lundbeck Res. USA, Lundbeck Res. USA.*
- 1:00 Y2 **807.13** ● Role of P2X7 in a model of neuroinflammation associated with microglial activation: *Ex vivo* and *in vivo* correlates. P. ACTON; C. COTTO; W. ECKERT; J. Y. MA; B. LORD; P. BONAVENTURE; A. WICKENDEN; P. KING; B. SAVALL; N. CARRUTHERS; M. LETAVIC; T. LOVENBERG; A. BHATTACHARYA*. *Janssen Pharmaceut. Companies of Johnson & Johnson, Janssen Pharmaceut. Companies of Johnson & Johnson.*
- 2:00 Y3 **807.14** WITHDRAWN.

POSTER

807. Neuroinflammation

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 X14 **807.01** IL37 exerts anti-inflammatory effects after spinal cord injury. M. COLL*; R. LOPEZ-VALES; I. FRANCOS-QUIJORNA; E. SANTOS-NOGUEIRA; P. BUFLER; C. DINARELLO. *Univ. Autonoma De Barcelona, Dr. von Hauner Children's Hosp. Ludwig-Maximilians-University, Univ. of Colorado.*

- 3:00 Y4 **807.15** Chronically reactive microglia in peroxisomal multifunctional protein 2 deficiency lose surveillance markers, upregulate mTOR driven pathways but are not neurotoxic. M. BAES*; S. VERHEIJEN; L. BECKERS; A. CASAZZA; O. BUTOVSKY; M. MAZZONE. *KU Leuven, KU Leuven, VIB, Harvard Med. Sch.*
- 4:00 Y5 **807.16** Studying anti-inflammatory signaling by alpha7 nicotinic receptors in heterologous expression systems. R. H. LORING*; B. GARG; A. KULKARNI; G. THAKUR. *Northeastern Univ.*
- 1:00 Y6 **807.17** HFE H67D polymorphism is associated with reduced severity of cerebral malaria and increases survival with Plasmodium berghei ANKA. J. R. CONNOR*; D. F. LEITNER; M. LANDMESSER; E. NEELY; J. A. STOUTE. *Penn State Col. of Med., Penn State Univ. Col. of Med.*
- 2:00 Y7 **807.18** Inflammatory gene expression in rats submitted to spinal cord injury immunized with A91 and Cop-1. E. E. GARCIA-VENCES*; L. BLANCAS - ESPINOZA; M. GOLDBERG-MUROW; A. FLORES-ROMERO; R. SILVA-GARCIA; A. IBARRA-ARIAS. *Inst. Nacional de Medicina Genomica, Univ. Anahuac México Norte, Ctr. Medico Nacional Siglo XXI. Hospital de Pediatria., Ctr. Medico Nacional Siglo XXI, Hosp. de Pediatria.,*
- 3:00 Y8 **807.19** Proinflammatory cytokines alter signalling in human brain pericytes. D. JANSSON*; J. RUSTENHOVEN; R. L. OLDFIELD; P. S. BERGIN; E. W. MEE; R. L. M. FAULL; M. DRAGUNOW. *Univ. of Auckland, Lab. Plus, Auckland City Hosp., Univ. of Auckland.*
- 4:00 Y9 **807.20** Chronic alcohol consumption in combination with energy drinks causes an inflammatory response and neurodegeneration in rat. A. D. DIAZ*; D. CORDERO; S. TREVINO; V. TOXQUI; M. GONZALEZ-CORONEL; L. AGUILAR; G. CARMONA; J. MORENO-RODRIGUEZ; P. AGUILAR-ALONSO; G. FLORES; J. GUEVARA. *Facultad De Ciencias Quimicas, BUAP, Facultad De Ciencias Quimicas, BUAP, Facultad De Ciencias Quimicas, BUAP, Inst. de Fisiologia, BUAP, Facultad de Medicina, UNAM.*
- 1:00 Y10 **807.21** PKC δ mediates lipopolysaccharide-induced inflammatory response in astrocytes. N. SINGH; V. LAWANA; H. JIN; V. ANANTHARAM*; A. KANTHASAMY; A. KANTHASAMY. *Iowa State Univ.*
- 2:00 Y11 **807.22** Systemic lipopolysaccharide administration alters cortical neuromodulation by increasing monoamine-oxidase A and acetylcholinesterase activities. L. K. BEKAR*; M. ZHI; G. SAWICKI; M. E. LOEWEN. *Univ. of Saskatchewan.*
- 3:00 Y12 **807.23** Chemokine CCL3 inhibition of long-term potentiation in rat hippocampal slices. G. TU*; J. ZHANG; H. LIU; J. LIU; H. XIONG. *Unmc, Univ. of Nebraska Med. Ctr.*
- 4:00 Y13 **807.24** Tumor necrosis factor-related apoptosis inducing ligand/glucocorticoid-induced TNF receptor ligand redundancy in neurodegenerative processes. G. DI BENEDETTO; N. RONISVALLE; P. GUARNERI*; R. BERNARDINI; G. CANTARELLA. *Univ. Catania Sch. of Med., Univ. of Roma "La Sapienza", IBIM-CNR.*
- 1:00 Y14 **807.25** ● Epitope-binding specificity and cloning of human anti-NMDA receptor antibodies. J. A. PANZER*; R. SHARMA; N. SIMOROWSKI; B. H. BAUMANN; A. J. GLEICHMAN; H. PRUSS; H. FURUKAWA; S. DESSAIN; D. R. LYNCH. *Children's Hosp. of Philadelphia, Lankenau Inst. for Med. Res., Cold Spring Harbor Lab., Univ. of Pennsylvania, UCLA, Charité – Universitätsmedizin Berlin, Children's Hosp. of Philadelphia.*

- 2:00 Y15 **807.26** Fluoropalmitoylethanolamine biodistribution and its potential as a PET tracer. S. J. GATLEY*; M. PANDEY; R. I. DUCLOS; T. R. DEGRADO. *Northeastern Univ., Mayo Clin.*
- 3:00 Y16 **807.27** Neonatal stress alters inflammatory responses in the adult mouse brain. G. ODEBODE; L. NAIDU; C. F. HOHMANN*. *Morgan State Univ., Morgan State Univ.*

POSTER

808. Mood Disorders in Animal Models IV

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 Y17 **808.01** ● Enhancement of glutamate clearance via cortical glial glutamate transport (GLT-1) induced resiliency to stress. M. BANASR; A. LEPACK; J. MALDONADO-AVILES; C. KISELYCZNYK; V. DURIC; J. ZHANG; S. WILBER; K. TANAKA; R. DILEONE; R. DUMAN; G. SANACORA*. *Yale Univ.*
- 2:00 Y18 **808.02** Conventional antidepressant drugs and DNMT inhibitors effects on stress-induced behavior and DNA methylation changes in mice submitted to forced swimming test. S. S. JOCA*; A. J. SALES. *FCFRP-USP, Sch. of Med. of Ribeirão Preto, USP.*
- 3:00 Y19 **808.03** Deletion of fibroblastic growth factor receptor 1 from NG2 cells exerts anxiolytic properties. A. BECKER*; A. LEPACK; X. LI; R. DUMAN. *Yale Univ.*
- 4:00 Y20 **808.04** Molecular and behavioral characterization of optogenetic stimulation of infralimbic prefrontal cortex circuitry. A. M. THOMAS*. *Yale Sch. of Med.*
- 1:00 Y21 **808.05** Neonatal exposure to clomipramine is a behavioral rat model of Obsessive Compulsive Disorder offering face validity as well as predictive validity for the GABA agonist diazepam, the serotonin uptake inhibitor fluoxetine, and the norepinephrine uptake inhibitor desipramine. D. S. KREISS*; S. E. FRANK; K. M. CRAIG; H. S. MULDER; A. L. HYDE; L. S. LAIKS. *Colgate Univ.*
- 2:00 Y22 **808.06** S6 Kinase 1 signaling in prefrontal cortex controls depressive behavior. J. M. DWYER*; J. MALDONADO-AVILES; A. E. LEPACK; R. J. DILEONE; R. S. DUMAN. *Yale Univ.*
- 3:00 Y23 **808.07** Generation of Pet1210-Cre transgenic mouse line reveals non-serotonergic expression domains of Pet1 both in CNS and periphery. M. PASQUALETTI*; B. PELOSI; S. MIGLIARINI; G. PACINI. *Univ. of Pisa, Inst. Italiano di Tecnologia.*
- 4:00 Y24 **808.08** ▲ The serotonin 5HT2 antagonist mianserin, but not the serotonin agonist 5HT2 mCPP (meta-chlorophenylpiperazine), shows predictive validity in the behavioral rat model of Obsessive Compulsive Disorder induced via neonatal exposure to clomipramine. A. L. HYDE*; H. S. MULDER; K. M. CRAIG; S. E. FRANK; L. J. KASPARSON; D. S. KREISS. *Colgate Univ.*
- 1:00 Y25 **808.09** Ketamine stimulates mTORC1 and BDNF release in primary cortical cultures. A. LEPACK*; M. FUCHIKAMI; J. M. DWYER; A. TROG; M. BANASR; R. S. DUMAN. *Yale.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 Y26 **808.10** Development of stem-cells therapy for depressive disorders combined with nanotechnology based CT imaging. O. BETZER*; A. SHWARTZ; M. MOTIEL; G. KAZIMIRSKY; I. GISPAN; C. BRODIE; R. POPOVTZER; G. YADID. *Bar Ilan Univ., Bar Ilan Univ., Bar Ilan Univ., Bar Ilan Univ., Henry Ford Hosp.*
- 3:00 Y27 **808.11** Differential serotonergic mechanisms of the noncompetitive NMDA receptor antagonists ketamine, memantine, MK-801 in the Differential Reinforcement-of-Low-Rate (DRL) 72 s procedure in rats. J. H. PORTER*; C. R. MERRITT; T. M. HILLHOUSE. *Virginia Commonwealth Univ.*
- 4:00 Y28 **808.12** Discriminative stimulus properties of the noncompetitive N-Methyl-D-aspartate (NMDA) receptor antagonist ketamine in rats. B. L. JOSEPH*; H. S. POPAL; T. M. HILLHOUSE; J. H. PORTER. *Virginia Commonwealth Univ.*
- 1:00 Y29 **808.13** Behavioral and neurobiological correlates for predicting resilience and susceptibility to social defeat. Y. GROSSMAN*; R. E. WALDMAN; G. PANDEY; W. G. JANSSEN; D. DUMITRIU. *Icahn Sch. of Med. At Mount Sinai, Vassar Col., Icahn Sch. of Med. at Mount Sinai.*
- 2:00 Y30 **808.14** Effects of minocycline on preventing a second depressive-like episode following stressor exposure. J. L. REMUS*; D. JAMISON; J. JOHNSON. *Kent State Univ., Kent State Univ.*
- 3:00 Y31 **808.15** Depression and diabetes interplay: First steps towards identifying the common neural pathological mechanisms and treatment strategies in rodent models. S. DUTHEIL*; K. T. OTA; A. E. LEPACK; R. S. DUMAN. *Yale Univ.*
- 4:00 Y32 **808.16** The role of the gabaergic interneurons of the prefrontal cortex in the rapid-acting antidepressant effects of ketamine. D. M. GERHARD*; K. T. OTA; E. S. WOHLER; B. B. LAND; R. J. DILEONE; R. S. DUMAN. *Yale Univ., Yale Univ.*
- 1:00 Z1 **808.17** Infralimbic and prelimbic contributions to anxiety-like behaviors in mice following developmental SSRI exposure. M. K. CAFFREY*; T. J. REBELLO; M. S. ANSORGE. *Columbia Univ. and NYSPI, Columbia Univ.*
- 2:00 Z2 **808.18** Acute ketamine administration alters dendritic spines in rat medial prefrontal cortex. C. H. DUMAN*; R. TERWILLIGER; R. S. DUMAN. *Yale Univ.*
- 3:00 Z3 **808.19** • Sex differences in stress regulation of genome-wide transcriptional profiles in the mouse nucleus accumbens. M. L. PFAU*; I. PURUSHOTHAMAN; G. E. HODES; J. FENG; S. A. GOLDEN; H. M. CATES; M. FLANIGAN; L. SHEN; S. J. RUSSO. *Icahn Sch. of Med. at Mount Sinai.*
- 4:00 Z4 **808.20** ▲ The effects of Zolof and Desyrel on crayfish behavior. G. M. PREZKOP; R. F. WALDECK*. *Univ. of Scranton.*
- 1:00 Z5 **808.21** Targeted knockdown of muscarinic acetylcholine receptors in the pre-frontal cortex to examine the rapid anti-depressant effects of scopolamine. E. S. WOHLER*; K. T. OTA; A. NAVARRIA; A. E. LEPACK; J. M. DWYER; S. R. TAYLOR; M. R. PICCIOTTO; R. S. DUMAN. *Yale Univ.*
- 2:00 Z6 **808.22** Capturing the complexity of depression from mood through molecules: Bioinformatic integration of behavioral, physiological, proteomic, morphometric and intracellular signaling datasets in a female monkey model of depression. S. L. WILLARD*; K. E. BORGMANN-WINTER; P. M. SLEIMAN; H. Y. WANG; C. A. SHIVELY; C. G. HAHN. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia, Children's Hosp. of Philadelphia, CUNY Med. Sch., Wake Forest Sch. of Med.*
- 3:00 Z7 **808.23** Effects of altered developmental monoamine signaling on adult aggressive behaviors. D. MAHADEVIA*; C. M. TEIXEIRA; Q. YU; D. SURI; M. ANSORGE. *Columbia Univ., Massachusetts Gen. Hosp.*
- 4:00 Z8 **808.24** • BICC1 expression is elevated in depressed subjects and contributes to depressive behavior in rodents. K. T. OTA*; W. ANDRES; D. A. LEWIS; C. A. STOCKMEIER; R. S. DUMAN. *Yale Univ. Sch. of Med., Univ. of Pittsburgh, Univ. of Mississippi Med. Ctr.*
- 1:00 Z9 **808.25** Antidepressant-like effects of ketamine in the Differential Reinforcement-of-Low-Rate (DRL) 72 sec operant procedure in mice. M. A. FRIAR*; T. M. HILLHOUSE; K. A. WEBSTER; J. H. PORTER. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*
- 2:00 Z10 **808.26** Mood stabilizers regulate cytokine levels but have no effect on memory impairment and BDNF reduction induced by maternal deprivation in rats. M. MARTINS DE LIMA*; R. M. C. PINHEIRO; B. C. D. PORTAL; S. B. BUSATO; L. FALAVIGNA; R. D. P. FERREIRA; A. C. PAZ; B. W. AGUIAR; F. P. KAPCZINSKI; N. SCHRÖDER. *Pontifical Catholic Univ. of Rio Grande do Sul, Federal Univ. of Rio Grande do Sul.*
- 3:00 Z11 **808.27** Diffusion Tensor Imaging (DTI) in rats suggests that the posterior thalamus and prefrontal cortex are targets of Chronic Unpredictable Stress (CUS). C. L. KISELYCZNYK*; M. BANASR; C. ABDALLAH; D. COMEN; F. HYDER; G. SANACORA. *Yale Univ.*
- 4:00 Z12 **808.28** Cortical GFAP astrocyte-specific ablation induces depressive-like and anxiety-like behaviors similar to chronic stress. Cortical GFAP astrocyte-specific ablation induces depressive-like and anxiety-like behaviors similar to chronic stress. M. BANASR*; M. XU; A. LEPACK; C. KISELYCZNYK; J. ZHANG; S. WILBER; G. SANACORA; C. PITTENGER; R. DUMAN. *Yale Univ.*
- 1:00 Z13 **808.29** Differential sensitization of microglia and peripheral blood mononuclear cells following short-term and chronic unpredictable stress. T. C. FRANKLIN*; E. S. WOHLER; R. S. DUMAN. *Yale Univ. Sch. of Med.*

POSTER

809. Amphetamine Reinforcement II

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 Z14 **809.01** Methamphetamine produces increased neuropeptide gene expression by TET-dependent DNA methylation/hydroxymethylation events in the rat nucleus accumbens. S. JAYANTHI*; B. GONZALEZ; P. WONGPRAYOON; M. T. MCCOY; B. LADENHEIM; J. L. CADET. *NIDA-IRP, Inst. de Investigaciones Farmacológicas, Inst. of Mol. Biosciences, Mahidol Univ.*

- 2:00 Z15 **809.02** Methamphetamine induces a rapid increase of intracellular Ca⁺⁺ levels in neurons overexpressing GCaMP5. Y. WANG*; K. WU; E. K. BAE; M. HSU; C. T. RICHIE; B. K. HARVEY; S. YU. *Natl. Hlth. Res. Inst., Natl. Inst. on Drug Abuse.*
- 3:00 Z16 **809.03** Pentadone leads to psychological dependence via dopaminergic system. J. HWANG; S. KWON; S. HONG; Y. JUNG; S. MA; J. KIM; J. SEO; J. LEE; S. LEE; C. JANG*. *Sungkyunkwan Univ.*
- 4:00 Z17 **809.04** Decrease in dopamine neuron activity following acute amphetamine withdrawal is mediated by the BLA and reversed by ketamine. P. BELUJON*; A. A. GRACE. *Univ. Pittsburgh.*
- 1:00 Z18 **809.05** Long-term effects of a single use of methamphetamine administration on the expression of histone deacetylases (HDACs) in the rat nucleus accumbens. M. T. MCCOY*; S. JAYANTHI; B. LADENHEIM; J. CADET. *DHHS/NIH/NIDA/IRP.*
- 2:00 Z19 **809.06** Egr3 regulates mitochondrial biogenesis genes in nucleus accumbens neuron subtypes in cocaine abuse. R. CHANDRA*; T. C. FRANCIS; A. AMGALAN; L. JENSEN; P. KONKALMATT; A. GANCARZ; S. A. GOLDEN; G. TURECKI; S. J. RUSSO; D. M. DIETZ; M. K. LOBO. *Univ. of Maryland, Baltimore, Univ. of Maryland, Baltimore, Univ. of Buffalo, Mount Sinai Sch. of Med., Douglas Mental Hlth. Univ. Inst. and McGill Univ.*
- 3:00 Z20 **809.07** Cocaine-mediated epigenetic adaptations in the ventral pallidum. M. ENGELN; J. LENZ; R. CHANDRA; A. M. GANCARZ; T. FRANCIS; D. M. DIETZ; M. LOBO*. *Univ. of Maryland Sch. of Med., State Univ. of New York at Buffalo.*
- 4:00 Z21 **809.08** NrcAM regulating neural systems in addiction vulnerability. H. ISHIGURO*; K. TABATA; T. SAKURAI; M. GRUMET; E. ONAIVI; G. UHL; N. MOTOHASHI. *Univ. of Yamanashi, William Paterson Univ., Kyoto University, Med. Innovation Ctr., W.M. Keck Ctr. for Collaborative Neuroscience, Rutgers Univ., NIDA-IRP/NIH.*
- 1:00 Z22 **809.09** Transcriptional changes induced by amphetamine addiction in the striatum of spontaneously hypertensive rats (SHR), an animal model of attention-deficit/hyperactivity disorder (ADHD). J. CHEONG*; I. DELA PEÑA; J. DE LA PEÑA; I. DELA PEÑA; M. NOH. *Sahmyook Univ., Natural Products Res. Inst.*
- 2:00 Z23 **809.10** Mephedrone alters basal ganglia and limbic dynorphin systems. A. E. FLECKENSTEIN*; A. J. HOONAKKER; G. R. HANSON; C. L. GERMAN. *Univ. of Utah, Univ. of Utah, Univ. of Utah.*
- 3:00 Z24 **809.11** ▲ Methylphenidate-induced ultrasonic vocalizations in adolescent and adult rats. A. BINETTE*; A. ROOS; C. G. GONZALEZ; K. A. TRUJILLO. *California State Univ. San Marcos.*
- 4:00 Z25 **809.12** Adolescents show a reduced behavioral response to methamphetamine and dextroamphetamine when compared to adults. V. ESPINOZA*; C. Y. HELLER; A. ROCHA; K. A. TRUJILLO. *California State Univ. San Marcos.*
- 1:00 Z26 **809.13** ▲ Methamphetamine-induced ultrasonic vocalizations differ in adolescent and adult rats. C. G. GONZALEZ*; T. TOWNER; F. LOPEZ; A. ROCHA; K. A. TRUJILLO. *California State Univ. San Marcos.*
- 2:00 Z27 **809.14** The influence of methamphetamine on maternal behavior and development of the pups during the neonatal period. M. MALINOVA*; I. HREBICKOVA; E. MACUCHOVA; R. SLAMBEROVA. *Charles Univ. In Prague, Third Fac. of Med.*
- 3:00 Z28 **809.15** Gender differences in behavioral changes caused by early neonatal methamphetamine exposure and application of the same drug in adult rats. I. HREBICKOVÁ*; M. MALINOVA; E. MACUCHOVA; R. SLAMBEROVA. *Charles University, Third Fac. of Med.*
- 4:00 Z29 **809.16** What is the effect of acute methamphetamine exposure on anxiety-related behavior in female rats after prenatal treatment with the same drug? E. MACÚCHOVÁ*; K. NOHEJLOVÁ; M. MALINOVÁ; I. HREBÍČKOVÁ; M. POMETLOVÁ; R. ŠLAMBEROVÁ. *Charles Univ. In Prague/Third Fac. of Med.*
- 1:00 Z30 **809.17** Chronic treatment with mood stabilizer lithium inhibits amphetamine-increased risk-taking behaviour in rats. Z. ZHOU; Y. WANG; H. TAN; Y. SUN; Y. CHE; J. WANG*. *Dept. of Pharmacol. & Therapeutics, Fac. of Medicine, Univ. of Manitoba, Med. Col. of Soochow Univ.*
- 2:00 Z31 **809.18** Acute food deprivation decreases the expression of methamphetamine-induced sensitization of motor activity in rats. F. MIRANDA-HERRERA*; J. C. JIMENEZ-MEJIA; M. BECERRA-DIAZ; I. BARRIENTOS-NORIEGA; J. A. MIRANDA-BARRIENTOS. *Univ. Nacional Autonoma De Mexico.*
- 3:00 Z32 **809.19** Methamphetamine, alcohol and nicotine dependent subjects have different neural signatures on a discounting task. W. F. HOFFMAN*; D. SCHWARTZ; V. WILSON; B. TREMBLAY; L. DENNIS; S. MITCHELL. *Portland VA Med. Ctr., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*
- 4:00 Z33 **809.20** ● Effect of memantine on treatment of methamphetamine-induced rewarding and drug-seeking in mice. P. YANG; K. HSU; Z. WU; P. TAO*. *Natl. Hlth. Res. Institutes/Center For Neuropsychiatric Res., Natl. Def. Med. Ctr.*
- 1:00 Z34 **809.21** The effects of amphetamine exposure during adolescence on anxiety- and depression-like behavior in young adulthood. S. KANG*; A. P. SINGH; W. M. SOLER; M. WU; Z. P. DANIELS; R. GALVES; J. M. GULLEY. *Univ. of Illinois At Urbana Champaign, Univ. of Illinois At Urbana Champaign, Univ. of Illinois At Urbana Champaign.*
- 2:00 Z35 **809.22** Acute methamphetamine induces reactive oxygen species in dopamine terminals of the nucleus accumbens. S. C. STEFFENSEN*; D. M. HEDGES; N. D. SCHILATY; E. Y. JANG; J. T. YORGASON; F. P. BELLINGER. *Brigham Young Univ., Oregon Hlth. and Sci. Univ., Univ. of Hawaii.*
- 3:00 Z36 **809.23** The combined neurotoxic effects of 3,4-methylenedioxymethamphetamine (MDMA) and selected substituted methcathinones in a mouse model. N. MINER*; R. JOHNSON; A. ESHLEMAN; A. JANOWSKY. *Oregon Hlth. & Sci. Univ.*
- 4:00 AA1 **809.24** Interactions between methamphetamine self-administration, early life stress, and MeCP2. C. LEWIS*; M. F. OLIVE. *Arizona State Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

810. Cannabis: Neural Mechanisms and Addiction

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 AA2 **810.01** Passive exposure to cannabis smoke leads to signs of dependence in rats. A. W. BRUIJNZEEL*; X. QI; S. WALL; M. GOLD; M. FEBO; B. SETLOW. *Univ. of Florida*.
- 2:00 AA3 **810.02** Species differences of cannabinoid receptor 2 genes and their roles in cocaine self-administration. Q. LIU*; H. ZHANG; E. L. GARDNER; Z. XI. *Intramural Res. Program, NIDA/NIH*.
- 3:00 AA4 **810.03** Evoked dopamine dynamics in nucleus accumbens core following acute versus chronic administration of the CB1/CB2 agonist, CP55,940. S. LEE*; G. V. REBEC; K. D. BUNNER. *Indiana Univ. Bloomington, Indiana Univ. Bloomington*.
- 4:00 AA5 **810.04** • Development and validation of a device for the intrapulmonary delivery of cannabinoids and stimulants to rats. M. A. TAFEE*; S. M. AARDE; M. COLE. *The Scripps Res. Inst., The Scripps Res. Inst.*
- 1:00 AA6 **810.05** Chronic cocaine self-administration up-regulates cannabinoid CB₂ receptor expression in mice and rats. H. ZHANG*; Q. LIU; G. BI; E. L. GARDNER; Z. XI. *Natl. Inst. On Drug Abuse*.
- 2:00 AA7 **810.06** Selective activation of CB2Rs eliminates VTA dopamine neuronal bursting firing in rodents. M. GAO*; Z. XI; J. WU. *Barrow Neurolog. Institute, St. Joseph's Hosp. and Med. Ctr., Natl. Inst. on Drug Abuse*.
- 3:00 AA8 **810.07** Cortical glutamatergic type 1 cannabinoid receptor protects against diet-induced obesity: Potential role of odor function in the motivation for food intake. I. RUIZ DE AZUA; A. APARISI REY; S. RUHLE; F. REMMERS; M. HAMANN; K. MONORY*; B. LUTZ. *Univ. Med. Ctr. of the Johannes Gutenberg Univ.*
- 4:00 AA9 **810.08** Involvement of cortico-striatal glutamatergic neurotransmission in the reinforcing effects of delta-9-tetrahydrocannabinol (THC). M. SECCI*; Z. JUSTINOVA; P. MASCIA; H. WU; G. TANDA; R. SCHWARCZ; S. GOLDBERG. *NIDA, IRP, NIH, DHHS, Univ. of Maryland Sch. of Med.*
- 1:00 AA10 **810.09** Cannabinoid withdrawal and hypodopaminergia: A role for rostromedial tegmental neurons? A. MUNTONI*; S. ARONI; C. SAGHEDDU; M. PISTIS. *CNR Neurosci. Institute-Cagliari, Univ. of Cagliari*.
- 2:00 AA11 **810.10** Effects of restraint stress on zebra finch vocal production: Evidence for social context-dependence. T. L. HOLLAND*; K. SODERSTROM. *East Carolina Univ., East Carolina Univ.*
- 3:00 AA12 **810.11** CRIP1a knockout mice exhibit anxiolytic-like behaviors and enhanced CB1 receptor signaling in the amygdala and striatum. B. G. HOEGBERG; J. C. JACOB; H. SHIM; A. TOMARCHIO; A. C. HOWLETT; A. H. LICHTMAN; L. J. SIM-SELLEY; C. J. CHEN; D. E. SELLEY*. *VA Commonwealth Univ., Wake Forest Univ., Baylor Col. of Med.*

- 4:00 AA13 **810.12** Regulation of 2-AG-mediated cannabinoid CB1 receptor signaling and adaptation by beta-arrestin2. L. J. SIM-SELLEY*; B. M. IGNATOWSKA-JANKOWSKA; I. B. ADAMS; A. TOMARCHIO; B. F. CRAVATT; C. K. ARNATT; Y. ZHANG; A. H. LICHTMAN; D. E. SELLEY. *Virginia Commonwealth Univ., Scripps Res. Inst.*

- 1:00 AA14 **810.13** Effects of adolescent nicotine exposure on cannabinoid-induced place preference in young adult rats. C. P. PLANT; M. STONE; A. D. HARDIN; C. A. CRAWFORD*. *California State Univ.*
- 2:00 AA15 **810.14** Randomly-methylated β -cyclodextrin used to solubilize $\Delta(9)$ -THC has effects on long-term potentiation in wildtype, CB1 and CB1:CB2 knockout mouse models. M. SPEROW*; H. ZANIEWSKI; L. G. KIRBY; M. E. ABOOD. *Temple Univ.*

POSTER

811. Neural Plasticity, Dependence, and Addiction

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 AA16 **811.01** Dissecting the contribution of cannabinoid type-1 receptor activation to reward circuitry function. B. TURNER*; B. A. GRUETER. *Vanderbilt Univ. Med. Ctr., Vanderbilt Brain Inst., Vanderbilt Univ. Med. Ctr.*
- 2:00 AA17 **811.02** Investigation of parvalbumin expressing interneurons in the nucleus accumbens. D. GHOSE*; E. B. BISEN-HERSH; B. A. GRUETER. *Vanderbilt Univ., Vanderbilt Univ. Sch. of Med., Vanderbilt Brain Inst.*
- 3:00 AA18 **811.03** NPY and CCK interneurons lacking GAD1 have distinct behavioral responses to cocaine. E. B. BISEN-HERSH*; D. GHOSE; K. GARBETT; K. MIRNICS; B. A. GRUETER. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ. Med. Ctr., Vanderbilt Univ., Vanderbilt Univ.*
- 4:00 AA19 **811.04** Deconstructing nucleus accumbens circuit functions with cell type-specific NMDA receptor deletions. M. JOFFE*; B. A. GRUETER. *Vanderbilt Univ. Sch. of Med., Vanderbilt Univ. Sch. of Med.*
- 1:00 AA20 **811.05** Incubation of methamphetamine craving after prolonged self-imposed abstinence in a contingency management alternative-reward procedure. D. CAPRIOLI*; M. VENNIRO; T. ZERIC; N. MARCHANT; Y. SHAHAM. *Natl. Inst. on Drug Abuse*.
- 2:00 AA21 **811.06** Persistent and inflexible palatable food preference in rats with a history of limited and extended access methamphetamine self-administration. M. VENNIRO*; T. ZERIC; Y. SHAHAM; D. CAPRIOLI. *Natl. Inst. On Drug Abuse*.
- 3:00 AA22 **811.07** The cfos-tetO-Cre transgenic rat system: A new tool to examine neuronal ensembles in learned behavior. F. C. CRUZ*; R. M. LEAO; Y. ZHANG; K. R. BABIN; C. T. RICHIE; J. M. PICKEL; Y. SHAHAM; B. K. HARVEY; B. T. HOPE. *NIH, NIH, NIH, NIH*.
- 4:00 AA23 **811.08** Role of prefrontal cortical neuronal ensembles in appetitive (palatable food) operant extinction learning in rats. B. L. WARREN*; F. C. CRUZ; R. M. LEAO; K. R. BABIN; K. MCPHERSON; Y. SHAHAM; B. T. HOPE. *NIDA IRP/NIH*.

- 1:00 AA24 **811.09** Role of histone deacetylase 5 in dorsal striatum in incubation of methamphetamine craving. T. ZERIC*; M. B. CARREIRA; H. CATES; P. KENNEDY; S. KAMBHAMPATI; J. M. BOSSERT; E. J. NESTLER; C. W. COWAN; Y. SHAHAM; X. LI. *NIDA, Harvard Med. Sch., Icahn Sch. of Med. at Mount Sinai, Univ. of California Los Angeles.*
- 2:00 BB1 **811.10** Unique molecular alterations in dorsal striatal neuronal ensembles selectively activated during context-induced reinstatement of methamphetamine seeking in rats. F. J. RUBIO*. *Behavioral Neurosci. Res. Branch, NIDA IRP, NIH.*
- 3:00 BB2 **811.11** Incubation of methamphetamine craving is associated with selective increases of the epigenetic HDAC5 gene in FACS-sorted Fos-positive activated neurons in dorsal striatum. X. LI*; F. J. RUBIO; T. ZERIC; R. CIMBRO; Q. LIU; B. T. HOPE; Y. SHAHAM. *Natl. Inst. On Drug Abuse, John Hopkins Univ.*
- 4:00 BB3 **811.12** Role of ventral medial prefrontal cortex neuronal ensembles in context-induced reinstatement of cocaine seeking. R. M. LEÃO*; F. C. CRUZ; K. R. BABIN; J. M. BOSSERT; Y. SHAHAM; B. T. HOPE. *NIDA/NIH.*
- 1:00 BB4 **811.13** Assessing dendritic spine plasticity in transgenic rat nucleus accumbens neuronal ensembles activated during amphetamine sensitization. R. V. FALLON*; F. C. CRUZ; B. T. HOPE. *Johns Hopkins Univ., NIDA IRP.*
- 2:00 BB5 **811.14** Cellular mechanisms underlying cocaine-evoked plasticity in the lateral habenula. M. MAMELI*; S. LECCA; K. VALENTINOVA; L. MARION-POLL; J. GIRAULT; S. MUSARDO; F. GARDONI; F. GEORGES; F. MEYE. *Inserm UMR S839 Inst. Du Fer A Moulin, Dept. of Pharmacol., Bordeaux Neurosci. Inst.*
- 3:00 BB6 **811.15** Differential calcium signaling mediated by NMDA and AMPA receptors in individual dendritic spines of nucleus accumbens medium spiny neurons. D. T. CHRISTIAN*; C. A. BRIGGS; M. E. WOLF; G. E. STUTZMANN. *Rosalind Franklin Univ. of Med. and Sci.*
- 4:00 BB7 **811.16** Role of protein translation in regulating surface and synaptic AMPA receptor levels in cultured nucleus accumbens neurons. M. E. WOLF*; C. T. WERNER; K. K. Y. WOO; J. LOWETH. *Rosalind Franklin Univ. of Med. and Sci.*
- 1:00 BB8 **811.17** UPS activity in the nucleus accumbens: Parsing out effects of cocaine self-administration, withdrawal time, and memory retrieval. C. T. WERNER*; M. MILOVANOVIC; J. A. LOWETH; M. E. WOLF. *Rosalind Franklin Univ. of Med. and Sci.*
- 2:00 BB9 **811.18** Development of mGluR-LTD in the nucleus accumbens during withdrawal from extended-access cocaine self-administration. A. F. SCHEYER*; M. E. WOLF; K. Y. TSENG. *Rosalind Franklin Univ. of Med. and Sci., Rosalind Franklin Univ. of Med. and Sci., Rosalind Franklin Univ. of Med. and Sci.*
- 3:00 BB10 **811.19** Effects of extended access cocaine self-administration on inhibitory neurotransmission in the nucleus accumbens. A. PURGIANTO*; J. J. MIAO; M. MILOVANOVIC; M. E. WOLF. *Rosalind Franklin Univ. of Med. and Sci.*
- 4:00 BB11 **811.20** Altering group I mGluR tone selectively affects surface expression of GluA2-lacking AMPA receptors in cultured nucleus accumbens neurons. J. A. LOWETH*; J. M. REIMERS; M. E. WOLF. *Rosalind Franklin Univ. of Med. and Sci., UT Southwestern Med. Ctr.*
- 1:00 BB12 **811.21** Long-term behavioral effects after postnatal morphine exposure in a rat model. M. M. CRAIG; D. BAJIC*. *Boston Children's Hosp.*
- 2:00 BB13 **811.22** ▲ Changes in expression of brain-derived neurotrophic factor and calbindin following behavioral sensitization to apomorphine in rats. D. J. LUSTBERG; M. P. HIND; D. A. WELDON*. *Hamilton Col., Hamilton Col.*
- 3:00 BB14 **811.23** A kappa opioid receptor antagonist reverses stress-induced neuroplasticity and cocaine-seeking even well after the stressor. A. M. POLTER*; R. A. BISHOP; L. A. BRIAND; R. C. PIERCE; J. A. KAUER. *Brown Univ., Univ. of Pennsylvania Sch. of Med.*
- 4:00 BB15 **811.24** ● Identifying striatal gene networks and pathways associated with cocaine dependence. D. C. MASH*; Z. JIANG; E. CAPOBIANCO; N. F. TSINOREMAS; D. S. DELUCA; K. ARDLIE; S. P. GARAMSZEGLI; G. TURECKI. *Dept of Neurology, Univ. Miami Miller Sch. Med., Univ. of Miami, Broad Inst., McGill Univ.*
- 1:00 BB16 **811.25** Cocaine-induced metaplasticity in the cerebellum: Effects on the cerebellar Perineuronal nets. M. CARBO-GAS*; D. VAZQUEZ-SANROMAN; K. LETO; C. SANCHIS-SEGURA; D. CARULLI; F. ROSSI; M. MIQUEL*. *Univ. Jaume I, Neurosci. Inst. of Turin (NIT), Neurosci. Inst. of the Cavalieri-Ottolenghi Fndn. (NICO).*
- 2:00 BB17 **811.26** Long-term effects in rat resting state networks following postnatal morphine exposure. D. BAJIC; M. M. CRAIG; D. BORSOOK*; L. BECERRA. *Boston Children's Hosp., Boston Children's Hosp.*
- 3:00 BB18 **811.27** Voluntary aerobic exercise normalizes methamphetamine-induced changes in frontocortical BDNF and striatal D2 transcription. A. B. THOMPSON*; A. STOLYAROVA; Z. YING; F. GÓMEZ-PINILLA; A. IZQUIERDO. *UCLA, UCLA.*
- 4:00 BB19 **811.28** ● Neuroadaptation induced by acute or chronic ketamine: Long-term effects of ketamine self-administration on zif-268 expression in rats. C. V. CHIAMULERA*; M. VENNIRO; D. W. S. CHEUNG; A. MUTTI; L. PADOVANI; M. DI CHIO; G. FUMAGALLI; D. T. YEW. *Univ. Verona, The Chinese Univ. of Hong Kong.*
- 1:00 BB20 **811.29** Optogenetic self-stimulation of the infralimbic-accumbens pathway blunts the development of cocaine sensitization. A. J. ASP; E. B. LARSON*; M. C. HEARING; M. J. THOMAS. *Univ. of Minnesota.*
- 2:00 BB21 **811.30** Alpha2a-adrenergic receptors filter parabrachial inputs to the bed nucleus of the stria terminalis. S. FLAVIN*; R. MATTHEWS; D. G. WINDER. *Vanderbilt Univ. Med. Ctr., Vanderbilt Univ.*

POSTER

812. Drug Self-Administration: Behavioral Pharmacology and Molecular Mechanisms

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 BB22 **812.01** The FAAH inhibitor PF-04457845 has THC-like rewarding and reinstatement effects in squirrel monkeys and increases dopamine levels in the nucleus accumbens shell in rats. Z. JUSTINOVA*; P. MASCIA; M. E. SECCI; G. H. REDHI; D. PIOMELLI; S. R. GOLDBERG. *NIDA, IRP, NIH, DHHS, Univ. of California Irvine.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 BB23 **812.02** Self-administration of the sigma-receptor agonist, DTG, in experimentally naïve rats. T. HIRANITA; T. A. KOPAJTIC; C. MESANGEAU; C. R. MCCURDY; J. L. KATZ*. *NIDA/IRP/NIH/DHHS, NIDA/IRP/NIH/DHHS, Sch. of Pharmacy, Univ. of Mississippi, DHHS/NIH/NIDA IRP, Biomed. Res. Ctr.*
- 3:00 BB24 **812.03** Role of orexin terminal regions during conditioned food seeking. A. M. CASON*; G. ASTON-JONES. *Med. Univ. South Carolina, Med. Univ. of South Carolina.*
- 4:00 BB25 **812.04** Behavioural response to a 5-HT_{1b} agonist following MDMA self-administration. D. ARONSEN; J. WEBSTER; N. BUKHOLT; N. ARNOTT-STEEL; S. SCHENK*. *Victoria Univ. Wellington.*
- 1:00 BB26 **812.05** Motivation to self-administer methamphetamine in a behavioral-economics paradigm predicts the effect of oxytocin on relapse behavior. B. M. COX*; B. S. BENTZLEY; R. E. SEE; C. M. REICHEL; G. ASTON-JONES. *Med. Univ. of South Carolina, Univ. of Tabuk.*
- 2:00 BB27 **812.06** Pharmacological modulation of the reinforcement enhancing effects of toluene in intracranial self-stimulation. M. E. TRACY*; K. L. SHELTON. *Virginia Commonwealth Univ. Med. Ctr.*
- 3:00 BB28 **812.07** Quantitative structure-activity relationships (QSAR) for abuse-related neurochemical and behavioral effects of para-substituted methcathinone derivatives in rats. J. S. BONANO*; M. L. BANKS; R. A. GLENNON; J. S. PARTILLA; M. H. BAUMANN; S. S. NEGUS. *Virginia Commonwealth Univ., Natl. Inst. on Drug Abuse.*
- 4:00 BB29 **812.08** Constituents of "bath salts", mephedrone and methylenedioxypyrovalerone (MDPV), enhance behavioral sensitization to psychostimulants in rodents. M. BERQUIST*, JR; M. M. PEET; H. K. TRAXLER; A. M. MAHLER; L. E. BAKER. *Western Michigan Univ.*
- 1:00 BB30 **812.09** Activation of cannabinoid type 2 receptors in the ventral tegmental area modulate dopamine excitability via m-type potassium channels. J. WU*; B. LARSEN; Z. XI; M. GAO. *Barrow Neurolog Inst., Univ. of Arizona Med. College, Phoenix, Natl. Inst. on Drug Abuse, Barrow Neurolog. Inst.*
- 2:00 BB31 **812.10** Mapping glucagon-like peptide-1 receptor expression in the brain. D. L. GRAHAM*; H. H. DURAI; A. GALLI; G. D. STANWOOD. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*
- 3:00 BB32 **812.11** ▲ Evaluation of serotonergic, dopaminergic, and cholinergic drug effects and interactions in conditioned place preference in planarians. C. TROSTLE; H. PROUGH; A. HAWKINS; H. HOLMES; D. V. WIDZOWSKI*. *Indiana Univ. of Pennsylvania, Indiana Univ. of Pennsylvania.*

POSTER

813. Neuropeptides and Behavior

Theme C: Disorders of the Nervous System

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 BB33 **813.01** Antiepileptic activity of the Neuropolybin peptide: Electroencephalographic study and potential pharmacologic target. J. SILVA*; L. L. COUTO; M. R. MORTARI; F. M. M. GOMES; R. O. BELEBONI. *Univ. of Brasília, Univ. of Ribeirão Preto.*
- 2:00 CC1 **813.02** The role of melanin-concentrating hormone in repetitive behavior. N. M. SANATHARA*; C. GARAU; O. CIVELLI. *Univ. of California, Irvine.*
- 3:00 CC2 **813.03** A novel regulator of motivated behavior: The role of Neuromedin U Receptor 2. D. L. MCCUE*; C. R. BENZON; J. M. KASPER; J. D. HOMMEL. *Univ. of Texas Med. Br., Univ. of Texas Med. Br.*
- 4:00 CC3 **813.04** Anxiolytic activity of fractions isolated from the venom of the social wasp *Synocera surinama*. F. M. GOMES*; C. K. PANIAGO; D. O. FREIRE; L. C. DOS ANJOS; M. R. LIMA; M. R. MORTARI. *Univ. of Brasília.*
- 1:00 CC4 **813.05** Social behavioral assessment of mice lacking oxytocin receptor expression in serotonergic cells. B. L. TENG*; D. C. STOPPEL; G. J. SALIMANDO; M. P. ANDERSON. *Beth Israel Deaconess Med. Ctr.*
- 2:00 CC5 **813.06** Oxytocin attenuates changes in bdnf iv expression following chronic predator odor stress. C. E. KING; C. L. FERLAND; W. C. GRIFFIN, III; J. F. MCGINTY; H. C. BECKER*. *Med. Univ. South Carolina, Med. Univ. South Carolina.*
- 3:00 CC6 **813.07** Neuroprotective activity of a new peptide isolated from the venom of a social wasp against degeneration induced by pilocarpine model of epilepsy. M. R. MORTARI*; B. R. ARAÚJO. *Univ. of Brasília.*
- 4:00 CC7 **813.08** ● Effect of predator stress on expression of CRF family transcript in mouse brain. E. I. FLANDREAU*; V. RISBROUGH; M. TOTH. *Univ. of California San Diego.*
- 1:00 CC8 **813.09** New microdialysis probe design - Improved probe recovery of energy metabolites, neurotransmitter and neuropeptides. J. LIETSCHIE*; J. GORKA; S. HARDT; M. KARAS; J. KLEIN. *Goethe Univ., Goethe Univ.*
- 2:00 CC9 **813.10** Insulin acts as a reward signal in the nucleus accumbens. C. WOODS*; M. STOUFFER; Z. GUTTMAN; S. CABEZA DE VACA; K. CARR. *New York Univ.*
- 3:00 CC10 **813.11** Anxiogenic and pro-depressant effects of PACAP. M. SEIGLIE*; K. L. SMITH; A. IEMOLO; R. DORE; P. COTTONE; V. SABINO. *Boston Univ. Sch. of Med.*
- 4:00 CC11 **813.12** Genetic disruption of the vasopressin 1b receptor reveals its complex role in nociception. J. C. MORALES-MEDINA*; H. CALDWELL. *Kent state Univ.*
- 1:00 CC12 **813.13** Neuroprotective activity in a murine model of Parkinson's disease of the peptide fraction isolated from the venom of the wasp *Parachartergus fraternus*. A. B. MAYER*; K. G. MOREIRA; R. B. D. GODINHO; L. A. CAMPOS; M. R. LIMA; M. R. MORTARI. *Univ. of Brasília.*

- 2:00 CC13 **813.14** Antidepressant-like effect induced by Orexin A injection into the ventral medial prefrontal cortex (vMPFC): participation of TrkB receptors. L. A. STANQUINI*; A. SCOPINHO; S. JOCA. *Univ. of São Paulo, Univ. of São Paulo, Univ. of São Paulo.*
- 3:00 CC14 **813.15** ▲ Nanotechnology to deliver neuropeptides to the brain: Distribution and effects on anxiety-like behaviors. N. VINZANT; C. WU; T. KINDLE; J. SCHOLL; V. KUMARASWAMY; R. SOLANKI; R. KODALI; G. L. FORSTER*. *Univ. South Dakota.*
- 4:00 CC15 **813.16** The anxiolytic effect of oxytocin in the medial prefrontal cortex is sub-region specific. S. SABIHI*; S. DONG; J. KREIN; B. LEUNER. *The Ohio State Univ., The Ohio State Univ., The Ohio State Univ.*
- 1:00 CC16 **813.17** Paradoxical sleep (REM sleep) regulation in a mouse model of narcolepsy with cataplexy. C. PEYRON; A. ROMAN; S. ARTHAUD; N. L. URBAIN*; P. LUPPI. *CRNL, CNRS UMR5292, Faculté Lyon-Est Laënnec, CNRS UMR5292.*
- 2:00 CC17 **813.18** ● Antinociceptive effect and identification of a peptide isolated from social wasp venom *Parachartergus fraternus*. P. GALANTE*; J. C. GONCALVES; G. A. A. CAMPOS; R. B. M. GODINHO; E. F. SCHWARTZ; M. R. MORTARI. *Univ. of Brasilia.*
- 3:00 CC18 **813.19** Vasopressin V1A receptor blockade within the latero-anterior hypothalamus reduces anxiety-like behaviors in Syrian hamsters treated throughout development with anabolic/androgenic steroids. T. R. MORRISON*; L. RICCI; R. MELLONI, Jr. *Northeastern University.*
- 4:00 CC19 **813.20** A new antiepileptic peptide: Efficacy and adverse effects. G. A. CAMPOS*; J. SILVA; R. ARAUJO; M. MORTARI. *Univ. of Brasilia.*
- 1:00 CC20 **813.21** Local oxytocin tempers anxiety via GABAA receptor in the female prairie vole hypothalamic paraventricular nucleus. A. S. SMITH*; M. TABBAA; K. LEI; P. EASTHAM; M. J. BUTLER; R. ALTSHULER; L. LINTON; Z. WANG. *Florida State Univ.*
- 2:00 CC21 **813.22** Motivation factors alter the response-suppressant effects of the neurotensin NTS1 receptor agonist PD149163 in rats: Implications for the assessment of neurotensin compounds in animal models. C. R. BROWN; R. M. KIRKENDALL; E. L. RIDGE; A. PRUS*. *Northern Michigan Univ.*
- 3:00 CC22 **813.23** Trk B receptor agonist, 7,8-Dihydroxyflavone, suppress sleep and orexin levels. P. FENG*; A. AKLADIOUS; Y. HU; P. J. SMITH. *Case Western Reserve Univ/Cleveland VA, Louis Stokes Cleveland DVA Medical Ctr.*
- 2:00 CC24 **814.02** A feedforward inhibitory circuit mediates lateral refinement of auditory cortical processing in upper layer 2/3. L. LI*; X. JI; F. LIANG; H. W. TAO; L. I. ZHANG. *USC, Zilkha Neurogenetic Inst., USC, USC.*
- 3:00 CC25 **814.03** Detecting causal connectivity from correlated spiking activity. B. CHAMBERS; J. B. DECHERY; J. N. MACLEAN*. *The Univ. of Chicago.*
- 4:00 CC26 **814.04** Activation of GABAergic interneurons by thalamocortical afferents and during cortical network activity. B. M. KRAUSE*; S. M. GRADY; A. RAZ; D. J. UHLRICH; M. I. BANKS. *Univ. of Wisconsin, Univ. of Wisconsin, Univ. of Wisconsin.*
- 1:00 CC27 **814.05** Learning-related neuronal circuit dynamics in mouse auditory cortex investigated by chronic two-photon calcium imaging. B. LAURENCZY*; F. HELMCHEN; H. LÜTCKE. *Univ. Zürich.*
- 2:00 CC28 **814.06** Dissecting local and long-range circuits involved in the movement-related modulation of auditory cortex. D. M. SCHNEIDER*; A. NELSON; R. MOONEY. *Duke Univ.*
- 3:00 CC29 **814.07** A disinhibitory circuit for auditory thalamocortical plasticity. A. E. TAKESIAN*; L. J. BOGART; A. L. COVELLO; T. K. HENSCH. *Boston Children's Hosp., Harvard Univ.*
- 4:00 CC30 **814.08** Modulation of spontaneous and evoked activity in auditory cortex by just-hypnotic doses of three anesthetic agents. M. I. BANKS*; N. S. MORAN; T. J. STILP; B. M. KRAUSE; S. M. GRADY. *Univ. of Wisconsin, Univ. of Wisconsin.*
- 1:00 CC31 **814.09** Effects of local inhibition on stimulus-specific adaptation across laminae of primary auditory cortex. J. BRIGUGLIO*; R. G. NATAN; L. MWILAMBWE-TSHILOBO; M. N. GEFFEN. *Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 2:00 CC32 **814.10** Characterization of cell-type specific inputs to auditory cortex with intersectional presynaptic tracing. A. NELSON*; R. MOONEY. *Duke Univ.*
- 3:00 CC33 **814.11** Connections of auditory cortex with premotor areas in the marmoset monkey. L. A. DE LA MOTHE*; M. MITCHELL; C. T. MILLER. *Tennessee State Univ., Univ. of California San Diego.*
- 4:00 CC34 **814.12** Crossmodal plasticity alters correlated neuronal activity in auditory cortex. K. ORZECOWSKI*; P. KANOLD. *Univ. of Maryland, Univ. of Maryland.*
- 1:00 CC35 **814.13** What portion of A1 receptive fields is thalamocortical? I. INTSKIRVELI; A. JOSHI; B. J. VIZCARRA-CHACÓN; R. METHERATE*. *Univ. California, Irvine, Natl. Autonomous Univ. of Mexico.*
- 2:00 CC36 **814.14** The auditory corticocollicular system in mouse: Synaptic and cellular properties. K. STEBBINGS*; B. SLATER; D. A. LLANO. *Univ. of Illinois At Urbana Champaign, Univ. Of Illinois At Urbana Champaign, Univ. of Illinois At Urbana Champaign.*

POSTER

814. Auditory Cortex

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 CC23 **814.01** Modification of thalamocortical transmission by the thalamic reticular nucleus: Computation and optical studies. B. J. SLATER*; A. M. WILLIS; D. A. LLANO. *Univ. of Illinois, San Antonio Military Med. Ctr., Univ. of Illinois.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 DD3 **814.17** Spatiotemporal dynamics of sub- and suprathreshold tone-evoked responses in auditory cortex. E. NYLEN*; M. GRAUPNER; A. REYES. *NYU*.
- 2:00 DD4 **814.18** Membrane potential correlations during spontaneous and tone-evoked activity in the auditory cortex *in vivo*. M. GRAUPNER*; E. L. NYLEN; A. D. REYES. *Ctr. For Neural Science, NYU*.
- 3:00 DD5 **814.19** Synaptic circuit basis of auditory cortical modulation by prefrontal cortex. D. VUMBACO; J. W. MIDDLETON*. *LSU Hlth. Sci. Ctr.*
- 4:00 DD6 **814.20** Differential expression of parvalbumine-positive neurons in the auditory cortex of the rat due to diversity of auditory inputs. B. ROMERO-GOMEZ; C. FRANCES-FERRIZ; C. POSE-UTRILLA; F. CARRICONDO; A. MURCIANO; S. BAO; F. PANETSOS*. *Univ. Complutense, Helen Wills Neurosci. Inst., Univ. of Central Florida*.

POSTER

815. Auditory Processing: Perception, Cognition, and Action via Animal and Modeling Studies

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 DD7 **815.01** Identification of brain regions processing male's song in female Zebra Finch by using catFISH technique. Y. AMADA*; K. HOTTA; K. OKA. *Keio Univ. 16D-206*.
- 2:00 DD8 **815.02** Forward masking in the superior paraolivary nucleus (SPON) of the rat. F. GAO*; A. S. BERREBI. *West Virginia Univ. Sch. of Med.*
- 3:00 DD9 **815.03** Spontaneous changes in state explain cortical and behavioral response variability. M. J. MCGINLEY*; S. V. DAVID; D. A. MCCORMICK. *Yale Univ., Oregon Hlth. & Sci. Univ.*
- 4:00 DD10 **815.04** Rapid context-dependent switching of auditory ensembles during behavior. K. KUCHIBHOTLA*; R. C. FROEMKE. *NYU Sch. of Med.*
- 1:00 DD11 **815.05** Role of medio-dorsal frontal and posterior parietal neurons during auditory detection performance in rats. M. C. WIEST*; K. BOHON. *Wellesley Col.*
- 2:00 DD12 **815.06** Tone suppression of thalamocortical inputs in the auditory cortex. C. XIONG*; L. KONG; J. YAN. *Univ. of Calgary*.
- 3:00 DD13 **815.07** The laminar profile of task-dependent plasticity in spiking and local field potentials from primary auditory cortex. N. FRANCIS*; D. ELGUEDA; B. ENGLITZ; J. FRITZ; S. SHAMMA. *Univ. of Maryland, Ecole Normale Supérieure*.
- 4:00 DD14 **815.08** Multiple functionally distinct circuits modulate auditory cortical activity during behavior. S. V. DAVID*. *Oregon Hlth. & Sci. Univ.*
- 1:00 DD15 **815.09** Probing the perceptual and physiological mechanisms underlying an auditory delayed match-to-sample task in marmosets (*Callithrix jacchus*). M. S. OSMANSKI*; X. WANG. *Johns Hopkins Univ. SOM, Johns Hopkins Univ.*

- 2:00 DD16 **815.10** Neural and behavioral correlates of auditory scene analysis. K. L. CHRISTISON-LAGAY*; Y. E. COHEN. *Perelman Sch. of Med. At the Univ. of Pennsylvania, Perelman Sch. of Med. at the Univ. of Pennsylvania*.
- 3:00 DD17 **815.11** Relative contributions of the auditory and prefrontal cortices to auditory perceptual decision-making. J. TSUNADA*; A. S. LIU; J. I. GOLD; Y. E. COHEN. *Univ. of Pennsylvania Sch. of Med., Univ. of Pennsylvania Sch. of Med.*
- 4:00 DD18 **815.12** Whole-body prepulse inhibition protocol to test sensorymotor gating mechanisms in monkeys. P. G. SALETTI*; R. S. MAIOR; E. HORI; H. NISHIJO; C. TOMAZ. *Univ. of Brasilia, Univ. of Toyama*.
- 1:00 DD19 **815.13** Measurement of the BOLD response to acoustic spectral flux in the macaque superior temporal plane. P. DHEERENDRA; O. JOLY; S. BAUMANN; A. THIELE; T. D. GRIFFITHS*. *Newcastle Univ., Oxford Univ., Inst. of Neurosci.*
- 2:00 DD20 **815.14** Task-dependent modulations of the fMRI BOLD response in the monkey brain. T. RINNE; R. MUERS; H. SLATER; E. SALO; D. HUNTER; C. I. PETKOV*. *Univ. of Helsinki, Newcastle Univ.*

POSTER

816. Subcortical Visual Pathways

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 DD21 **816.01** Integration of On and Off channels in the ferret visual thalamus. V. SURESH*; U. M. CIFTCIOGLU; B. M. LALA; V. AWASTHI; X. WANG; F. T. SOMMER; J. A. HIRSCH. *USC, Salk Inst. for Biol. Sci., Univ. of California, Berkeley*.
- 2:00 DD22 **816.02** The impact of bursting on information and redundancy in neuronal subsets of the primate LGN. M. CRUMILLER*; E. KAPLAN; B. KNIGHT. *The Rockefeller Univ., The Icahn Sch. of Med. at Mount Sinai*.
- 3:00 DD23 **816.03** Anatomical connection between the superior colliculus and the amygdala. L. MALKOVA*; S. B. GUTHERZ; J. BLOCH; J. MCCLANE; R. C. SAUNDERS; P. A. FORCELLI. *Georgetown Univ. Med. Ctr., Lab. of Neuropsychology, NIMH*.
- 4:00 DD24 **816.04** Using visual flicker to estimate the temporal response profile in human subcortical nuclei. K. DESIMONE*; K. A. SCHNEIDER. *York Univ., York Univ., Ctr. for Vision Res.*
- 1:00 DD25 **816.05** The similarity of receptive field properties in connections between the lateral geniculate nucleus and the primary visual cortex of the cat. N. SUEMATSU*; T. NAITO; T. MIYOSHI; H. SAWAI; H. SATO. *Osaka Univ.*
- 2:00 DD26 **816.06** Topographic order across functional classes of retinal ganglion cells. A. HENDRY*; I. D. THOMPSON; A. S. LOWE. *King's Col. London*.
- 3:00 DD27 **816.07** Response reliability of pulvinar neurons to repeated presentations of natural social movies. A. P. MURPHY*; C. DENG; B. E. RUSS; D. B. T. MCMAHON; D. A. LEOPOLD. *Natl. Inst. of Mental Hlth., Univ. of Birmingham, Natl. Eye Inst.*

- 4:00 DD28 **816.08** Optogenetic investigation of the LGN koniocellular influence on V1 activity. C. KLEIN*; H. C. EVRARD; K. SHAPCOTT; N. K. LOGOTHETIS; M. C. SCHMID. *Max Planck Inst. For Biol. Cybernetics, Ctr. for Integrative Neurosci., Ernst Strüngmann Inst. for Neurosci.*
- 1:00 DD29 **816.09** Long lasting modulation of excitability and synaptic dynamics in the awake geniculocortical system. C. R. STOELZEL*; J. HUFF; Y. BERESHPOLOVA; J. ZHUANG; X. HEI; J. ALONSO; H. A. SWADLOW. *Univ. of Connecticut, SUNY Optometry, Univ. of Connecticut, SUNY Optometry.*
- 2:00 DD30 **816.10** ▲ Extreme binocular plasticity and dynamic strategy implementation sustains visual prey capture in cephalopod cuttlefish. V. CHEUNG*; O. J. MULLINS; P. L. NGUYEN; A. D. HUBERMAN. *Dept. of Neurosciences, Univ. California San Diego.*
- 3:00 DD31 **816.11** Functional connectivity between superior colliculus and cortex during ongoing activity in the anesthetized ferret. I. M. STITT*; E. GALINDO-LEON; F. PIEPER; G. ENGLER; A. K. ENGEL. *Dept. of Neurophysiol. and Pathophysiology.*
- 4:00 DD32 **816.12** Systematic mapping of basic visual responses across the pulvinar of the awake macaque. C. DENG*; A. P. MURPHY; D. A. LEOPOLD. *NIMH/NIH, Univ. of Birmingham.*
- 1:00 EE1 **816.13** Face categorization by population activity patterns of the monkey pulvinar neurons. M. N. NGUYEN; J. MATSUMOTO; A. H. TRAN; T. ONO; H. NISHIJO*. *Univ. of Toyama, Univ. of Toyama.*
- 2:00 EE2 **816.14** Brain state modulation of directional selective neurons in the awake LGN. X. HEI*; C. R. STOELZEL; J. ZHUANG; Y. BERESHPOLOVA; J. HUFF; J. ALONSO; H. A. SWADLOW. *Univ. of Connecticut, Univ. of Connecticut, SUNY State Col. of Optometry.*
- 3:00 EE3 **816.15** Functional and anatomical connectivity between the pulvinar and temporal cortex. M. J. ARCARO*; M. PINSK; S. KASTNER. *Princeton Univ.*
- 4:00 EE4 **816.16** Changes in temporal structure of spike trains in the early visual pathway. A. R. CASTI*; E. KAPLAN; Y. XIAO. *Fairleigh Dickinson Univ., The Mount Sinai Sch. of Med., SUNY Downstate Med. Ctr.*
- 1:00 EE5 **816.17** Immunocytochemical localization of calbindin D28K, calretinin, and parvalbumin in bat superior colliculus. S. JEONG*; H. KIM; Y. GU; C. JEON. *Kyungpook Nat'l Univ., KNU Creative BioResearch Group (BK21), Kyungpook Natl. Univ.*
- 2:00 EE6 **816.18** Functional hierarchy in shape transformed apparent motion activates zebrafish tectal neurons revealed by two-photon calcium imaging. Z. LIU*; M. MA. *Inst. Biophysics, CAS.*
- 2:00 EE8 **817.02** The organization and development of cholinergic brainstem input to the mouse visual thalamus. G. SOKHADZE; N. ZHOU; M. E. BICKFORD; W. GUIDO*. *Univ. of Louisville.*
- 3:00 EE9 **817.03** Development of receptive field properties in mouse dLGN is accompanied by changes in excitatory and inhibitory retinal convergence. W. W. TSCHETTER*; G. GOVINDAIAH; W. GUIDO; C. NIELL. *Univ. of Oregon, Univ. of Louisville.*
- 4:00 EE10 **817.04** ▲ Nuclei-specific differences in nerve terminal distribution, morphology, and development in mouse visual thalamus. G. CARRILLO; A. MONAVARFESHANI; S. HAMMER; G. GUBBI GOVINDAIAH; W. GUIDO; M. A. FOX*. *VTCRI, Univ. Louisville, Univ. of Louisville, Virginia Tech. Carilion Res. Inst.*
- 1:00 EE11 **817.05** The mouse lateral posterior nucleus links the extrastriate visual cortex with the striatum and amygdala: An optogenetic investigation. N. ZHOU*; S. P. MASTERSON; G. GOVINDAIAH; W. GUIDO; M. E. BICKFORD. *Univ. of Louisville.*
- 2:00 EE12 **817.06** Convergence of “driver-like” inputs in the direction-selective zone of the mouse visual thalamus. M. E. BICKFORD*; N. ZHOU; T. E. KRAHE; G. GOVINDAIAH; W. GUIDO. *Univ. Louisville Sch. Med., Virginia Commonwealth Univ. Med. Ctr.*
- 3:00 EE13 **817.07** Functional organization of the dorsolateral tier in the lateral geniculate nucleus of the mouse. G. PANGENI; G. GOVINDAIAH; B. G. BORGHUIS; M. A. MCCALL*; W. GUIDO. *Univ. of Louisville, Univ. of Louisville.*
- 4:00 EE14 **817.08** Optogenetic activation of inhibitory synapses in the dorsal lateral geniculate nucleus of the mouse. G. GUBBI*; N. E. CHARALAMAKIS; W. GUIDO. *Univ. of Louisville.*
- 1:00 EE15 **817.09** Orientation columns in the mouse superior colliculus. E. H. FEINBERG*; M. MEISTER. *Harvard Univ., Caltech.*
- 2:00 EE16 **817.10** Variation in visual receptive field properties in subdomains of the superior colliculus of Islet2-EphA3 knock-in mice. R. B. KAY*; J. W. TRIPLETT. *Children's Natl. Med. Ctr., George Washington Univ.*
- 3:00 EE17 **817.11** Two-photon Calcium imaging of visual response properties of neurons in the mouse superior colliculus. S. INAYAT*; J. BARCHINI; J. CANG. *Northwestern Univ.*
- 4:00 EE18 **817.12** Shared and distinct sources of retinal input to the mouse dorsal lateral geniculate nucleus and superior colliculus. G. GAUVAIN; B. SIVYER; G. J. MURPHY*. *Janelia Farm Res. Campus / HHMI.*
- 1:00 EE19 **817.13** The influence of cortical feedback on visual information processing in mouse dorsolateral geniculate nucleus. A. VAICELIUNAITE*; S. ERISKEN; O. JURJUT; M. FIORINI; S. KATZNER; L. BUSSE. *Univ. of Tuebingen, Vilnius Univ.*
- 2:00 EE20 **817.14** Neural signals in the superior colliculus during innate defensive behavior. M. AGROCHAO*; M. MEISTER. *Caltech, Champalimaud Neurosci. Programme.*
- 3:00 EE21 **817.15** Genetic mechanisms that establish connectivity and function of parallel optic pathways. O. S. DHANDE*; T. A. SEABROOK; R. N. EL-DANAF; A. H. PHAN; J. T. WANG; P. L. NGUYEN; A. D. HUBERMAN. *Dept. of Neurosciences, Univ. California San Diego, Dept. of Neurobiology, Stanford Univ. Sch. of Med.*

POSTER

817. Subcortical Visual Pathways: Rodents

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 EE7 **817.01** Ultrastructural and optogenetic dissection of V1 corticotectal synapses in the mouse. S. P. MASTERSON*; B. K. AKERS; W. DANG; N. ZHOU; G. GOVINDAIAH; W. GUIDO; M. E. BICKFORD. *Univ. of Louisville, Univ. of Louisville.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 EE22 **817.16** The complex morphology and interconnected circuitry of neurons in the pretectum and ventral thalamus of the chicken (*Gallus gallus*). T. VEGA-ZUNIGA*; A. HARTMANN; E. PLANITSCHER; C. GONZALEZ; G. MARIN; H. LUKSCH. *Technische Univ. Muenchen, Univ. de Chile, Univ. Finis Terrae*.
- 1:00 EE23 **817.17** Retinal inputs to the lateral habenula: A new pathway for light aversion. P. M. FOGERSON*; M. AKASAKO; L. E. QUATTROCHI; E. NGUYEN; D. M. BERSON. *Brown Univ.*
- 2:00 EE24 **817.18** A physiological and anatomical comparison of relay cells in the ventral and dorsal divisions of the murine lateral geniculate nucleus of the thalamus. U. M. CIFTCIOGLU*; V. SURESH; B. M. LALA; W. A. SMITH; F. T. SOMMER; J. A. HIRSCH. *USC, University of California, Berkeley*.
- 3:00 EE25 **817.19** The effect of the electrical stimulation of optic nerve on rat brain. K. NISHIDA*; H. SAKAGUCHI; M. KAMEI; H. SAWAI; T. MIYOSHI; R. KAWASHIMA; T. FUJIKADO; K. NISHIDA. *Osaka Univ. Grad. Sch. of Med., Osaka Univ. Grad. Sch. of Med. & Frontier Biosci.*
- 4:00 EE26 **817.20** Looming-evoked responses in the mouse superior colliculus and the influence of corticotectal pathway. X. ZHAO*; M. LIU; J. CANG. *Northwestern Univ.*
- 1:00 EE27 **817.21** Organization of neuronal subtypes and retinal inputs in the mammalian superior colliculus. D. L. ROUSSO*. *Harvard Univ.*

POSTER

818. Striate Cortex: High-Level Factors

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 EE28 **818.01** V1's fast network time constant predicts features of its frequency response. K. REINHOLD*; M. SCANZIANI. *Univ. of California At San Diego, UCSD*.
- 2:00 FF1 **818.02** Contextual modulation in mouse primary visual cortex. M. S. CAUDILL*; M. SCANZIANI. *Univ. California San Diego*.
- 3:00 FF2 **818.03** Learning improves robustness of spiking activity in mouse primary visual cortex. O. JURJUT*; S. ERISKEN; A. VAICELIUNAITE; L. BUSSE; S. KATZNER. *Ctr. for Integrative Neurosci.*
- 4:00 FF3 **818.04** Reward-related modulation of sensory responses in mouse primary visual cortex. A. WAL*; O. JURJUT; L. BUSSE; S. KATZNER. *Ctr. for Integrative Neurosci.*
- 1:00 FF4 **818.05** Temporal expectancy modulates gamma oscillations in mouse primary visual cortex. S. VISWANATH*; N. A. DEL GROSSO; O. JURJUT; L. BUSSE; S. KATZNER. *Ctr. for Integrative Neurosci.*
- 2:00 FF5 **818.06** Factors determining narrowband gamma oscillation in mouse visual cortex. M. KRUMIN*; A. B. SALEEM; K. D. HARRIS; M. CARANDINI. *Univ. Col. London*.
- 3:00 FF6 **818.07** Correlates of anticipation and movement in mouse visual cortex. C. P. BURGESS*; A. RANSON; J. F. LINDEN; K. D. HARRIS; M. CARANDINI. *UCL Inst. of Ophthalmology, UCL Ear Inst., UCL Inst. of Neurol.*
- 4:00 FF7 **818.08** Active engagement induces stimulus-specific modulation of population activity in visual and parietal cortex of mice. G. N. PHO*; M. J. GOARD; B. CRAWFORD; M. SUR. *MIT*.
- 1:00 FF8 **818.09** A neural model of kinetic border-ownership. A. YAZDANBAKSHSH*; O. W. LAYTON. *Boston Univ., Rensselaer Polytechnic Inst.*
- 2:00 FF9 **818.10** Task dependent changes in stimulus representations in mouse visual cortex during learning. J. POORT*; A. KHAN; M. PACHITARIU; A. NEMRI; I. ORSOLIC; J. KRUPIC; M. BAUZA; G. KELLER; M. SAHANI; T. MRSIC-FLOGEL; S. B. HOFER. *Univ. Col. London, Biozentrum, Univ. of Basel, Gatsby Computat. Neurosci. Unit, UCL, Friedrich Miescher Inst.*
- 3:00 FF10 **818.11** Interhemispheric connections modulate single-unit and assembly activity driven by figure-ground stimuli in early visual areas. S. CONDE-OCAZIO*; T. WUNDERLE; T. S. ALTAVINI; D. ERIKSSON; K. E. SCHMIDT. *Federal Univ. of Rio Grande Do Norte, Ernst Strüngmann Inst., Federal Univ. of Rio Grande do Norte*.
- 4:00 FF11 **818.12** Task-linked ongoing hemodynamics suffices to explain negative BOLD in awake monkey V1. M. M. B. CARDOSO; B. LIMA; A. DAS*. *Columbia Univ., Champalimaud Fdn., The Italian Acad. for Advanced Studies in America, Columbia Univ.*
- 1:00 FF12 **818.13** Temporal expectation in the primate V1 during visually guided saccades. K. KIM*; C. LEE. *Seoul Natl. Univ.*
- 2:00 FF13 **818.14** Higher visual areas contribute to orientation dependent contextual modulation in mouse primary visual cortex. J. A. LORTEIJE*; M. W. SELF; J. VANGENEUGDEN; U. SCHNABEL; E. VAN BEEST; C. LEVELT; J. A. HEIMEL; P. R. ROELFSEMA. *Netherlands Inst. For Neurosci., Netherlands Inst. for Neurosci., Netherlands Inst. for Neurosci.*
- 3:00 FF14 **818.15** ▲ Neural responses to naturalistic movies in the common marmoset using electrocorticography. J. DAY-COONEY*; C. HUNG; B. E. RUSS; J. CIUCHTA; A. C. SILVA; D. A. LEOPOLD. *Natl. Inst. of Mental Hlth., Natl. Inst. of Neurolog. Disorders and Stroke*.
- 4:00 FF15 **818.16** Stimulus-specific adaptation induced by the oddball paradigm in rat visual cortex. K. VINKEN*; G. VAN DEN BERGH; R. VOGELS; H. P. OP DE BEECK. *KU Leuven*.
- 1:00 FF16 **818.17** Slow adaptation, but not MT feedback inactivation, reduces surround suppression in area V1 of the anesthetized marmoset. L. G. NOWAK*; J. DURAND; N. PICARD; L. RENAUD; P. GIRARD. *Cerco Lab. - UMR 5549, Boston Children's Hosp.*
- 2:00 FF17 **818.18** Pupil dilation reveals fast switching of cortical states during quiet wakefulness. J. REIMER*; E. FROUDRAKIS; C. CADWELL; D. YATSENKO; G. DENFIELD; A. S. TOLIAS. *Baylor Col. of Med., Baylor Col. of Med., Rice Univ.*
- 3:00 FF18 **818.19** A saccadic view of the "silent surround" of visual cortical receptive fields. F. GERARD-MERCIER; P. CARELLI; M. PANANCEAU*; P. BAUDOT; X. TRONCOSO; Y. FREGNAC. *UNIC-CNRS, UPR 3293, RIKEN BSI, Univ. Federal de Pernambuco*.

POSTER

819. Striate Cortex: Plasticity

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 FF19 **819.01** Neuroserpin limits experience-dependent plasticity in adult visual cortex. N. BUKHARI*; P. BURMAN; M. DEMARS; A. HUSSEIN; H. MORISHITA. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Icahn SOM at Mount Sinai.*
- 2:00 FF20 **819.02** Regulation of dendritic spine dynamics in adult visual cortex by lynx1. M. SAJO*; G. C. R. ELLIS-DAVIES; H. MORISHITA. *Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*
- 3:00 FF21 **819.03** Nicotinic modulator Lypd6 regulates plasticity in adult visual cortex. M. DEMARS*; P. BURMAN; C. GALLEGGO; A. ZIMMER; H. MORISHITA. *Icahn Sch. of Med. at Mount Sinai, Univ. of Bonn, Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*
- 4:00 FF22 **819.04** Deficits of synaptic plasticity in visual cortex of NARP -/- mice. C. L. LANTZ*; E. M. QUINLAN. *Univ. of Maryland.*
- 1:00 FF23 **819.05** Rescue of ocular dominance plasticity in NARP -/- mice by NRG1. Y. GU*; E. QUINLAN. *Univ. of Maryland, Univ. of Maryland.*
- 2:00 FF24 **819.06** Visual processing in human striate cortex as a result of congenital deafness. A. K. VILLWOCK*; D. BOTTARI; B. RÖDER. *Univ. of Hamburg.*
- 3:00 FF25 **819.07** Parvalbumin cell-specific transcriptional networks underlying epigenetic induction of adult cortical plasticity. Y. KOBAYASHI*; Y. NORO; N. K. LEE; A. E. TAKESIAN; M. SALIMULLAH; T. KUJI; A. ASAKA-OBA; M. NAKAMURA; C. PLESSY; M. FAGIOLINI; P. CARNINCI; T. K. HENSCH. *Harvard Univ., Boston Children's Hosp., RIKEN CLST, RIKEN BSI.*
- 4:00 FF26 **819.08** Associative Hebbian synaptic plasticity in primate visual cortex. S. HUANG*; C. ROZAS; M. TREVINO; J. CONTRERAS; S. YANG; L. SONG; H. LEE; A. KIRKWOOD. *Johns Hopkins Univ., Johns Hopkins Univ.*
- 1:00 FF27 **819.09** Four days of visual contrast deprivation reveals limits on neuronal adaptation. S. A. ENGEL*; K. HAAK; E. FAST; M. BAO. *Univ. of Minnesota, Radboud Univ. Nijmegen, Inst. for Psychology, Chinese Acad. of Sci.*
- 2:00 FF28 **819.10** Plasticity in the visual cortex: Emergence of new orientation maps. L. BACHATENE*; V. BHARMAURIA; S. CATTAN; N. CHANAURIA; J. ROUAT; S. MOLOTCHNIKOFF. *Univ. De Montréal, Univ. de Sherbrooke.*
- 3:00 FF29 **819.11** Darkness promotes a constant rate of anatomical recovery from different durations of monocular deprivation. K. DUFFY*; J. C. BOWDRIDGE; D. E. MITCHELL. *Dalhousie.*
- 4:00 FF30 **819.12** Binocular deprivation produces sustained decrease of visual responsiveness in parvalbumin expressing GABAergic interneurons, in-vivo. B. D. FEESE*; R. ZHANG; S. J. KUHLMAN. *Carnegie Mellon Univ.*
- 1:00 FF31 **819.13** Concerted action of SRF and CREB on the regulation of visual cortex plasticity. N. S. PULIMOOD*; P. TRINDADE; W. S. RODRIGUES; A. E. MEDINA. *Univ. of Maryland Baltimore, Univ. of Maryland, Baltimore.*

- 2:00 FF32 **819.14** Aberrant structure and functionality of the visual cortex of MMP-3 deficient mice. S. VREYSEN*; J. AERTS; L. VAN DEN BOER; L. ARCKENS. *KU Leuven.*
- 3:00 GG1 **819.15** Resetting the interocular inhibitory-and-excitatory balance with a novel video game based on the push-pull perceptual learning protocol. T. L. OOI; Z. HE*; Y. R. SU. *The Ohio State Univ., Univ. of Louisville, Pennsylvania Col. of Optometry, Salus Univ.*
- 4:00 GG2 **819.16** Transient gamma power peaks upon monocular deprivation during critical period plasticity. R. K. REH*; T. K. HENSCH. *Harvard Univ., Boston Children's Hosp.*
- 1:00 GG3 **819.17** Neurons in visual cortex retain a memory of their inputs after monocular deprivation. T. ROSE*; J. JÄPEL-SCHAELE; M. HÜBENER; T. BONHOEFFER. *Max-Planck-Institute of Neurobio.*
- 2:00 GG4 **819.18** Role of specific interneuron subtypes in ocular dominance plasticity during the critical period. R. RAJENDRAN*; M. SAIEPOUR; A. OMRANI; J. HEIMEL; C. LEVELT. *Netherlands Inst. For Neurosci.*
- 3:00 GG5 **819.19** Comparative effects of adaptation on supra & infragranular layers in cat's visual cortex. N. CHANAURIA*; V. BHARMAURIA; L. BACHATENE; S. CATTAN; J. ROUAT; S. MOLOTCHNIKOFF. *Univ. of Montreal, Univ. de Sherbrooke.*
- 4:00 GG6 **819.20** Effects of dark exposure on visual cortex recovery from monocular deprivation in juvenile and adult mice. I. ERCHOVA; A. VASALAUSKAITE; F. SENGPIEL*. *Cardiff Univ.*
- 1:00 GG7 **819.21** Astrocyte implantation reinduces ocular dominance plasticity in adult ferret visual cortex. W. A. FOXWORTHY*; P. TRINDADE; A. MEDINA. *Univ. of Maryland, Baltimore.*
- 2:00 GG8 **819.22** Parvalbumin network disinhibition prolongs critical period plasticity. L. J. BOGART*; H. H. C. LEE; T. K. HENSCH. *Harvard Univ., Boston Children's Hosp.*
- 3:00 GG9 **819.23** Use-dependent cortical plasticity of structure and function in primary visual cortex following central vision loss. W. BURGE*; J. GRIFFIS; R. NENERT; A. ELKHETALI; D. DECARLO; R. H. CHEN; K. VISSCHER. *Univ. of Alabama At Birmingham.*
- 4:00 GG10 **819.24** Effects of early, pervasive exposure to stripes on visual acuity and visual response properties in the short-tailed opossum. J. C. DOOLEY*; L. A. KRUBITZER. *UC Davis, UC Davis.*

POSTER

820. Extrastriate Cortex: Connections and Function

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 GG11 **820.01** Distinct inter-areal connection strengths in mouse visual cortex provide a pathway-specific drive of excitation and inhibition. R. D'SOUZA*; A. BURKHALTER. *Washington Univ. Sch. of Med.*
- 2:00 GG12 **820.02** Visual detection of signal in noise by mice. L. WANG*; R. KRAUZLIS. *Natl. Eye Inst.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 GG13 **820.03** Amblyopia reduces neuronal and perceptual sensitivity to naturalistic image structure. C. M. ZIEMBA*; N. J. MAJAJ; R. D. KUMBHANI; C. SHOONER; L. E. HALLUM; A. VOYLES; V. GARCIA-MARIN; J. G. KELLY; J. A. MOVSHON; L. KIORPES. *New York Univ.*
- 4:00 GG14 **820.04** Development of texture perception in infant monkeys: Physiology and behavior. A. VOYLES*; C. M. ZIEMBA; N. J. MAJAJ; J. A. MOVSHON; L. KIORPES. *New York Univ.*
- 1:00 GG15 **820.05** Morphology of area 21a terminals in the LP-pulvinar complex of the cat. R. ABBAS FARISHTA*; M. VILLENEUVE; F. HUPPÉ-GOURGUES; D. BOIRE; C. CASANOVA. *Univ. De Montréal, Univ. du Québec à Trois Rivières.*
- 2:00 GG16 **820.06** Predicting the topographic organisation of visual area V5/MT from probabilistic cortico-cortical connections to V1. J. E. T. SMITH; T. B. DYRBY; H. BRIDGE; K. MILLER; B. AHMED; A. J. PARKER; K. KRUG*. *Oxford Univ., Copenhagen Univ., Oxford Univ.*
- 3:00 GG17 **820.07** The role of the Exponential Distance Rule in establishing the functional dorsal and ventral pathways. L. MAGROU*; A. FALCHIER; M. ERCSEY-RAVASZ; C. LAMY; P. MISERY; P. GIROUD; D. C. VAN ESSEN; Z. TOROCZKAI; K. KNOBLAUCH; H. KENNEDY. *INSERM U846, SBRI, The Nathan S. Kline Inst. for psychiatric research, Babes-Bolyai Univ., Washington Univ. Sch. of Medicine, Univ. of Notre-Dame.*
- 4:00 GG18 **820.08** Cytoarchitecture and distance predict connectivity of the primate cerebral cortex. C. C. HILGETAG*; S. BEUL. *Univ. Med. Ctr. Hamburg-Eppendorf, Boston Univ.*
- 1:00 GG19 **820.09** A new theory for dorsal and ventral streams in the visual system. B. R. SHETH*; R. YOUNG. *Univ. Houston, Rice Univ.*
- 2:00 GG20 **820.10** Brain-wide imaging of neural activity during a visual discrimination task. J. B. WEKSELBLATT*; E. D. FLISTER; D. M. PISCOPO; C. M. NIELL. *Univ. of Oregon.*
- 3:00 GG21 **820.11** The disorganized visual cortex in reelin-deficient mice is highly functional and allows for enhanced plasticity. J. PIELECKA-FORTUNA*; R. J. WAGENER; A. MARTENS; B. GOETZE; K. F. SCHMIDT; J. F. STAIGER; S. LÖWEL. *Univ. of Göttingen, Univ. Med. Göttingen, Univ. of Göttingen.*
- 4:00 GG22 **820.12** Projecting V1 retinotopy to extrastriate cortex using connective field modeling and freely viewed naturalistic stimuli. A. S. BOCK*; G. K. AGUIRRE. *Univ. of Pennsylvania.*
- 1:00 GG23 **820.13** Hebbian plasticity leads to biased representations in parietal cortex. W. ZHANG*; K. D. MILLER. *Columbia Univ., Columbia Univ.*
- 2:00 GG25 **821.02** Visual and non-visual contributions to the perception of object motion during locomotion. B. R. FAJEN*; M. S. PARADE. *Rensselaer Polytechnic Inst., Rensselaer Polytechnic Inst.*
- 3:00 GG26 **821.03** Steering transforms cortical self-movement representation from direction to destination. M. S. JACOB*; C. J. DUFFY. *UCSF Dept. of Psychiatry, Univ. of Rochester.*
- 4:00 GG27 **821.04** Neural control of steering by self-movement stimuli: A closed-loop system identification analysis. M. S. MADHAV*; W. K. PAGE; N. J. COWAN; C. J. DUFFY. *Johns Hopkins Univ., Univ. of Rochester.*
- 1:00 GG28 **821.05** • Receptive field dynamics shape optic flow responses of MSTd neurons. W. K. PAGE*; W. VAUGHN; C. J. DUFFY. *Univ. of Rochester.*
- 2:00 GG29 **821.06** • Visual evoked potentials in behaving monkeys: Accessing selective attention and spatial orientation. C. J. DUFFY*; C. T. LOCKWOOD; W. VAUGHN; W. K. PAGE. *Univ. Of Rochester Med. Ctr., Univ. Of Rochester Med. Ctr.*
- 3:00 GG30 **821.07** Visual selectivity for heading in the macaque ventral intraparietal area. F. BREMMER*; A. SCHLACK; A. KAMINIARZ; K. HOFFMANN; M. LAPPE. *Philipps-Universität Marburg, Ruhr-Universität Bochum, Philipps-Universität Marburg, Westfälische Wilhelms-Universität Münster.*
- 4:00 GG31 **821.08** • The neurophysiology of visual processing during simulated self-movement in an active driving task. K. C. MUNGER*; W. VAUGHN; C. J. DUFFY. *URSM, URM.*
- 1:00 GG32 **821.09** The role of MST in visual-motor processing for navigation. X. LI*; S. W. EGGER; K. H. BRITTEN. *UC Davis, MIT.*
- 2:00 GG33 **821.10** Differential contribution of external versus self-generated visual motion during natural viewing: An fMRI study in the macaque. T. KANEKO*; B. E. RUSS; D. A. LEOPOLD. *Kyoto Univ., NIH/NIMH.*

POSTER

822. Visual Processing: Objects and Scenes

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 GG34 **822.01** Decoding depth: Representations of 3D versus 2D spatial information in human visual cortex. N. J. FINLAYSON*; C. N. KUPITZ; J. D. GOLOMB. *The Ohio State Univ., The Ohio State Univ.*
- 2:00 GG35 **822.02** Perception of planar surface orientation relative to earth vertical. L. C. ELMORE*; R. M. CASSIDY; A. ROSENBERG; G. C. DEANGELIS; D. E. ANGELAKI. *Baylor Col. of Med., The Univ. of Rochester.*
- 3:00 GG36 **822.03** Dorsal stream contribution to shape perception. V. ZACHARIOU*; C. V. NIKAS; L. G. UNGERLEIDER. *NIH/NIMH.*
- 4:00 HH1 **822.04** Figure-ground modulation of Gestalt objects in the visual cortex of the macaque monkey. D. JEURISSEN*; M. W. SELF; A. VAN HAM; P. R. ROELFSEMA. *Netherlands Inst. For Neurosci., VU Univ., Academic Med. Ctr.*

POSTER

821. Visual Motion: Heading and Orientation

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 GG24 **821.01** Joint encoding of observer translation and rotation in the ventral intraparietal area. A. SUNKARA*; G. C. DEANGELIS; D. E. ANGELAKI. *Washington Univ. In St. Louis, Univ. of Rochester, Baylor Col. of Med.*

* Indicated a real or perceived conflict of interest, see page 153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 HH2 **822.05** Coarse to fine-grained representation of object spatial layout in the Lateral Occipital Cortex (LOC). E. FREUD*; T. GANEL; G. AVIDAN. *Ben Gurion Univ. of the Negev*.
- 2:00 HH3 **822.06** Behavioral relevance changes feature selectivity in area V4. D. V. POPOVKINA*; A. K. PASUPATHY. *Univ. of Washington*.
- 3:00 HH4 **822.07** Advancing models of shape selectivity in V4. E. NICHOLAS*; A. PASUPATHY; W. BAIR. *Univ. of Washington, Univ. of Washington*.
- 4:00 HH5 **822.08** Behavioral importance of border ownership modulation in the visual cortex. A. B. MARTIN*; R. VON DER HEYDT. *Princeton Univ., The Johns Hopkins Univ., The Johns Hopkins Univ.*
- 1:00 HH6 **822.09** Recurrent processing contributes to natural scene categorization only for scenes of high complexity. I. I. GROEN*; S. JAHFARI; H. SCHOLTE. *Univ. of Amsterdam*.
- 2:00 HH7 **822.10** The time course of scene processing: A multi-faceted EEG investigation. A. HAREL*; I. I. A. GROEN; D. J. KRAVITZ; L. Y. DEOUELL; C. I. BAKER. *NIMH/NIH, Cognitive Neurosci. Group, Amsterdam Ctr. for Brain and Cognition, Inst. for Interdisciplinary Studies, The George Washington Univ., Hebrew Univ. of Jerusalem, Edmond and Lily Safra Ctr. for brain sciences (ELSC), The Hebrew Univ. of Jerusalem*.
- 3:00 HH8 **822.11** Visual material perception in the human brain: Glossiness versus roughness. H. SUN*; A. WELCHMAN; M. DI LUCA. *Univ. of Birmingham, Univ. of Cambridge*.
- 4:00 HH9 **822.12** Hierarchical processing underlying object representation in human visual cortex. R. XU*; B. HONG. *Tsinghua Univ.*
- 1:00 HH10 **822.13** Functional networks mediating convergence of object- and space-centered scene processing pathways in the PPA: Information-based connectivity analysis. D. LINSLEY*; S. MACEVOY. *Boston Col.*
- 2:00 HH11 **822.14** Rapid plasticity of visual object selectivity in inferior temporal cortex. D. J. FREEDMAN*; J. L. MCKEE. *Univ. of Chicago, The Univ. of Chicago*.
- 3:00 HH12 **822.15** High-dimensional encoding of scenes in the PPA, RSC, and OPA. E. M. AMINOFF*; M. TONEVA; A. GUPTA; M. TARR. *Carnegie Mellon, Yale Univ., Carnegie Mellon, Carnegie Mellon*.
- 4:00 HH13 **822.16** Convolutional neural networks predict the representational geometry embodied in the human visual processing hierarchy. R. M. CICHY*; A. KHOSLA; D. PANTAZIS; A. TORRALBA; A. OLIVA. *MIT, MIT, MIT*.
- 1:00 HH14 **822.17** Non-human primates behaviorally demonstrate object invariance and categorization. M. RABADI*; N. MAJAJ; L. KIORPES. *Ctr. for Neural Sci.*
- 2:00 HH15 **822.18** How do object parts determine dissimilarity relations? P. R. TARANATH*; S. P. ARUN. *Dr. S.P.Arun's Lab., Indian Inst. of Sci.*
- 3:00 HH16 **822.19** Effect of silhouetting and inversion on object representations in monkey inferotemporal cortex. N. R. MURTY*; S. P. ARUN. *Indian Inst. of Sci.*
- 4:00 HH17 **822.20** Reliability-dependent convergence of 3D visual cues in parietal cortex. A. ROSENBERG*; D. E. ANGELAKI. *Baylor Col. of Med.*
- 1:00 HH18 **822.21** Action affordances among semantically related objects mediates competition in V4. E. WAGER*; G. HUMPHREYS; P. E. SCALF. *Univ. of Arizona Dept. of Psychology, Univ. of Oxford*.
- 2:00 HH19 **822.22** Neural coding of point-light dynamic objects. J. A. PYLES*; M. J. TARR. *Carnegie Mellon Univ., Carnegie Mellon Univ.*
- 3:00 HH20 **822.23** Invariant representations for action recognition in the human visual system. L. ISIK*; A. TACCHETTI; T. POGGIO. *MIT*.
- 4:00 HH21 **822.24** Differential temporal capacity across category-selective regions in human high-level visual cortex. A. STIGLIANI*; K. S. WEINER; K. GRILL-SPECTOR. *Stanford Univ.*
- 1:00 HH22 **822.25** Neural correlates of pattern randomness judgment. H. KADOTA*; Y. YAMADA; T. DOTE; M. IWATA; T. KOCHIYAMA; M. MIYAZAKI. *Kochi Univ. of Technol., Kyushu Univ., Yamaguchi Univ., ATR*.
- 2:00 HH23 **822.26** How inferotemporal cortex cells use different cortical inputs for selectivity and tolerance. C. R. PONCE*; S. G. LOMBER; M. S. LIVINGSTONE. *Harvard Med. Sch., Univ. of Western Ontario*.
- 3:00 HH24 **822.27** Estimating dimensionality of object representations in monkey inferotemporal cortex. S. R. LEHKY*; R. KIANI; H. ESTEKY; K. TANAKA. *Salk Inst., RIKEN Brain Sci. Inst., New York Univ., Inst. for Res. in Fundamental Sci., Shahid Beheshti Univ. Sch. of Med.*
- 4:00 HH25 **822.28** Orientation representation in object-selective cortex. M. HATFIELD*; M. MCCLOSKEY; S. PARK. *Johns Hopkins Univ.*
- 1:00 HH26 **822.29** Are face representations depth-cue invariant? R. FARIVAR-MOHSENI*; A. DEHMOOBADSHARIFABADI. *McGill Univ.*
- 2:00 HH27 **822.30** What is visual and what is not? Mapping the connectional and functional fingerprints of the visual cortex in congenitally blind individuals. X. WANG*; M. PEELEN; Z. HAN; C. HE; A. CARAMAZZA; Y. BI. *Beijing Normal Univ., State Key Lab. of Cognitive Neurosci. and Learning and IDG/McGovern Inst. for Brain Research, Beijing Normal Univ., Ctr. for Mind/Brain Sciences, Univ. of Trento, Dept. of Psychology, Harvard Univ.*

POSTER

823. Visual Processing: Faces

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 HH28 **823.01** Thetaburst TMS over human V5/MT reduces fMRI responses to dynamic but not static faces in the right posterior STS. K. HOLIDAY*; D. PITCHER; S. JAPEE; L. G. UNGERLEIDER. *NIMH/NIH*.
- 2:00 HH29 **823.02** Members of face-responsive neurons in monkey area TE that contribute to global categorization of faces and to upright-face versus inverted-face categorization are different. N. MATSUMOTO*; Y. SUGASE-MIYAMOTO; K. KAWANO. *AIST, Kyoto Univ.*
- 3:00 HH30 **823.03** Sensitivity to different orientation ranges of face information in the monkey IT cortex. J. TAUBERT; G. VAN BELLE; V. GOFFAUX; R. VOGELS*. *KU Leuven, Res. Inst. for Psychological Sci.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 HH31 **823.04** The relationship between face-specific and domain-general configural processing in individuals with and without autism. E. KESSLER; A. C. LYNN; K. O'HEARN*; A. S. GHUMAN. *Univ. of Pittsburgh, Univ. of Pittsburgh Sch. of Med.*
- 1:00 HH32 **823.05** Projections of the lateral and basal nuclei of the monkey amygdala delineated with electrical stimulation and fMRI. A. MESSINGER*; J. M. SEIDLITZ; R. B. H. TOOTELL; L. G. UNGERLEIDER. *NIMH, NIMH, Massachusetts Gen. Hosp.*
- 2:00 II1 **823.06** Development of category-selective domains in infant macaque inferotemporal cortex. K. SRIHASAM*; J. VINCENT; M. LIVINGSTONE. *Harvard Med. Sch.*
- 3:00 II2 **823.07** Representations of dynamic faces in the brain: A closer look at identity and emotional expression using multi-voxel pattern analyses. C. DILLEN; L. HERMANS; J. STEYAERT; B. BOETS; H. P. OP DE BEECK*. *Univ. Leuven.*
- 4:00 II3 **823.08** The temporal cortex face expression area, the precuneus and posterior cingulate cortex, and autism. E. T. ROLLS*; W. CHENG; J. ZHANG; J. FENG. *Oxford Ctr. For Computat. Neurosci., Univ. of Warwick, Fudan Univ.*
- 1:00 II4 **823.09** Face processing in profoundly deaf adults: Hemispheric asymmetry study with chimeric faces. M. DOLE; D. MEARY; G. LEROY; O. PASCALIS*. *Lab. De Psychologie Et Neurocognition.*
- 2:00 II5 **823.10** Repetition and expectation suppressions affect fusiform activity independently. G. KOVÁCS*; N. WANKE; M. GROTHEER. *FSU JENA.*
- 3:00 II6 **823.11** Effects of signals originating from large blood vessels on BOLD signals of the fusiform face area. Y. SUNG*; J. CHUNG; S. OGAWA. *Kansei Fukushi Res. Institute, Tohoku Fukushi Univ., Gachon Univ.*
- 4:00 II7 **823.12** The roles of category-selective regions for identifying the deteriorated images. Y. MORITO*; T. MURATA. *Natl. Inst. of Information and Communication Technol.*
- 1:00 II8 **823.13** Mapping the topology of the face processing network in congenital prosopagnosia. G. ROSENTHAL*; M. TANZER; M. BEHRMANN; G. AVIDAN. *Dept. of Cognition and Brain, Ben-Gurion Univ., Dept. of Psychology, Ben-Gurion Univ., Dept. of Psychology, Carnegie Mellon Univ.*
- 2:00 II9 **823.14** Visual expertise in the absence of holistic processing in congenital prosopagnosia. N. WEISS; E. MARDO; G. AVIDAN*. *Dept. of Psychology, Ben-Gurion Univ. of the Negev, Dept. of Psychology, Univ. of Haifa.*
- 3:00 II10 **823.15** Understanding the topography of face and body selectivity in human ventral temporal cortex. A. CHAN*; E. H. SILSON; C. I. BAKER. *NIMH.*
- 4:00 II11 **823.16** ▲ Responses in the anterior fundus (AF) face patch to face size, identity, and viewing angle. L. N. VASILEVA*; A. P. JONES; D. B. T. MCMAHON; I. V. BONDAR; D. A. LEOPOLD. *Inst. of Higher Nervous Activity, Pirogov Russian Natl. Med. Univ., NIH.*
- 1:00 II12 **823.17** Encoding 10,000 pictures. D. B. MCMAHON*; D. A. LEOPOLD. *Natl. Inst. of Mental Health, NIH, Natl. Eye Inst., Natl. Inst. of Mental Hlth., Natl. Eye Inst., Natl. Inst. of Neurolog. and Stroke Disorders.*
- 2:00 II13 **823.18** The amygdala shows a greater selectivity for dynamic faces than static faces. G. R. IANNI*; D. PITCHER; L. G. UNGERLEIDER. *Natl. Inst. of Mental Hlth., NIH.*
- 3:00 II14 **823.19** Object silhouettes and semantic tuning in human lateral occipital cortex. M. D. LESCROART*; S. NISHIMOTO; J. L. GALLANT. *UC Berkeley, Ctr. for Information and Neural Networks.*
- 4:00 II15 **823.20** Invariant face recognition in the presence of clutter. Q. LIAO; J. Z. LEIBO*; T. POGGIO. *MIT, Google - Deepmind.*
- 1:00 II16 **823.21** Human right parietal cortex shows early preferential responses to naturalistic emotional stimuli: An MEG study. B. DE GELDER*; H. K. M. MEEREN; S. P. AHLFORS; M. S. HÄMÄLÄINEN; N. HADJIKHANI. *Dept. of Cognitive Neuroscience, Maastricht U, Tilburg Univ., MGH/ MIT/HMS Athinoula A. Martinos Ctr. for Biomed. Imaging, Harvard-MIT Hlth. Sci. and Technol.*
- 2:00 II17 **823.22** The human posterior STS is causally connected to the amygdala and the thalamus: A combined TMS / fMRI study. D. PITCHER*; L. G. UNGERLEIDER. *NIH/NIMH.*
- 3:00 II18 **823.23** Electrophysiological recordings reveal early facilitated visual processing of nude human bodies. J. ALHO*; N. SALMINEN; M. SAMS; J. K. HIETANEN; L. NUMMENMAA. *Aalto Univ. Sch. of Sci., Univ. of Tampere, Aalto Univ. Sch. of Sci., Turku PET Ctr., Aalto Univ., Aalto Univ.*
- 4:00 II19 **823.24** A causal role of the fusiform face area in face perception. C. KELLER*; I. DAVIDESCO; P. MEGEVAND; D. GROPE; F. LADO; A. MEHTA. *Albert Einstein Col. of Med., Princeton Neurosci. Inst., Hofstra Univ. Sch. of Medicine, North Shore LIJ Hlth. Syst. and Feinstein Inst. for Med. Res., Montefiore Med. Ctr., Albert Einstein Col. of Med.*
- 1:00 II20 **823.25** Norm-based responses to identity in the macaque face patch AF. A. P. JONES*; D. B. T. MCMAHON; D. A. LEOPOLD. *Univ. of Maryland, NIH.*
- 2:00 II21 **823.26** Facial expressions evoke differential neural coupling in macaques. N. LIU; F. HADJ-BOUZIANE; L. G. UNGERLEIDER; A. ISHAI*. *Natl. Inst. of Mental Hlth., INSERM, Univ. of Zurich.*
- 3:00 II22 **823.27** Temporal dissociation of sub-category level face processing. V. RANGARAJAN*; B. L. FOSTER; S. GATTAS; J. PARVIZI. *Stanford Univ.*
- 4:00 II23 **823.28** Tolerance of macaque middle superior temporal sulcus body patch neurons to shape-preserving stimulus transformations. I. D. POPIVANOV*; J. JASTORFF; W. VANDUFFEL; P. G. SCHYNS; R. VOGELS. *KU Leuven, KU Leuven, MGH Martinos Ctr., Harvard Med. Sch., Univ. of Glasgow.*
- 1:00 II24 **823.29** Neurons in the posterior STS extract facial information for the guidance of gaze following and the establishment of joint attention. H. RAMEZANPOUR*; K. MARCINIAK; P. W. DICKE; P. THIER. *Hertie Inst. For Clin. Brain Res.*
- 2:00 II25 **823.30** Representation of multiple stimuli by face selective neurons in the macaque temporal lobe. A. F. EBIHARA*; A. HOCEVAR; M. O. MAGNASCO; W. A. FREIWALD. *The Rockefeller Univ.*

POSTER

824. Visual Learning, Memory, and Categorization

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 II26 **824.01** Short-term and long-term temporal entrainment in primary visual cortex. Q. YU; N. QIN; J. ZHANG*. *Fudan Univ., Fudan Univ.*
- 2:00 II27 **824.02** Enhanced effective connectivity among early visual areas during visual skill learning: A longitudinal fMRI study. B. JANS*; V. VAN DE VEN; L. WALDORP; M. M. BEEN; I. M. BLOEM; K. ULUDAĞ; R. GOEBEL; P. DE WEERD. *Maastricht Univ., Univ. of Amsterdam, Boston Univ., Netherlands Inst. for Neurosci., Radboud Univ.*
- 3:00 II28 **824.03** Modulation of spatial working memory by optogenetic stimulation in the nonhuman primate. J. DAI*; D. L. SHEINBERG. *Brown Univ.*
- 4:00 II29 **824.04** Absence of working memory coding in MT during a fine discrimination for motion task. S. TORRES*; J. MARTINEZ-TRUJILLO. *McGill Univ., McGill Univ.*
- 1:00 II30 **824.05** Monkeys and humans share a similar neural structure for facial expression classification in the amygdala. H. ZHANG*; A. STACY; S. JAPEE; L. UNGERLEIDER. *NIMH.*
- 2:00 JJ1 **824.06** Visual perceptual training induces two dissociable learning processes. E. ZHANG; W. LI*. *Beijing Normal Univ.*
- 3:00 JJ2 **824.07** A quantitative link between unsupervised neuronal plasticity in inferior temporal cortex and unsupervised human object learning. X. JIA*; H. HONG; J. J. DICARLO. *MIT, MIT.*
- 4:00 JJ3 **824.08** Dissociable memory formation processes within the macaque medial temporal lobe. K. MIYAMOTO*; Y. ADACHI; T. OSADA; T. WATANABE; R. SETSUIE; H. M. KIMURA; T. WATANABE; Y. MIYASHITA. *Univ. Tokyo.*
- 1:00 JJ4 **824.09** Differential timing in the representation of different scene dimensions. H. K. PYOUN*; D. KRAVITZ. *George Washington Univ.*
- 2:00 JJ5 **824.10** Distribution of neurons responsible for visual stimulus-stimulus association memory in the macaque perirhinal cortex area 36. K. W. KOYANO*; M. TAKEDA; T. MATSUI; Y. OHASHI; T. HIRABAYASHI; K. KAKIZAWA; T. WATANABE; Y. MIYASHITA. *The Univ. of Tokyo Sch. of Med., The Univ. of Tokyo Sch. of Sci.*
- 3:00 JJ6 **824.11** Competitive interactions between rule and association learning during face categorization. H. KATTI*; N. C. PUNEETH; S. P. ARUN. *INDIAN INSTITUTE OF SCIENCE.*
- 4:00 JJ7 **824.12** Human Visual categorization is only consistent with Bayesian generative representations. F. MEHRABAN POUR BEHBAHANI*; A. FAISAL. *Imperial Col. London, Imperial Col. London, Hammersmith Hosp.*
- 1:00 JJ8 **824.13** Insights into the learning rule for visual familiarity memory through manipulations of sensory and cognitive drive. A. SMOLYANSKAYA; A. E. KAHN; N. C. RUST*. *Univ. of Pennsylvania.*
- 2:00 JJ9 **824.14** Repetition effects in ventral visual cortex after bilateral hippocampal loss. J. G. KIM*; E. GREGORY; B. LANDAU; M. MCCLOSKEY; N. B. TURK-BROWNE; S. KASTNER. *Princeton Univ., Johns Hopkins Univ., Princeton Univ.*

- 3:00 JJ10 **824.15** Objective mental images. T. NASELARIS*; K. LYNAM. *Med. Univ. of South Carolina, Col. of Charleston.*
- 4:00 JJ11 **824.16** Experience-dependent structural plasticity in entorhinal cortex following monocular deprivation in adult rats. S. GULL*; S. SCHMIDT; J. REICHENBACH; C. GASER; O. W. WITTE. *Jena Univ. Hosp., Jena Univ. Hosp., Jena Univ. Hosp.*
- 1:00 JJ12 **824.17** Adaptation decorrelates neuronal activity in visual cortex in a tuning-dependent manner. N. S. PRICE*; E. ZAVITZ; S. HAGHGOOIE; H. YU; A. DAVIES; M. ROSA. *Physiology, Monash Univ.*

POSTER

825. Sensory Coding, Perception, and Navigation

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 JJ13 **825.01** How many decision boundaries contribute to human vestibular decisions? D. M. MERFELD*; T. K. CLARK; Y. YI; R. GALVAN-GARZA; M. C. BERMUDEZ REY. *Harvard Med. Schl, MIT.*
- 2:00 JJ14 **825.02** Whole-body tilt thresholds outperform static maximum-likelihood sensory integration. K. LIM*; F. KARMALI; K. NICOUCAR; D. M. MERFELD. *Massachusetts Eye and Ear Infirmary, MIT, Harvard Med. Sch.*
- 3:00 JJ15 **825.03** Regular and irregular otolith afferents use different coding strategies to encode linear self-motion. M. JAMALI*; J. CARRIOT; K. E. CULLEN. *McGill Univ.*
- 4:00 JJ16 **825.04** A sense of self-motion orvection created by a moving soundscape. D. GRENET*; R. C. FITZPATRICK. *Neurosci. Res. Australia, Univ. of New South Wales.*
- 1:00 JJ17 **825.05** Motion reduces perceptual responses and balance reflexes to vestibular stimulation. R. C. FITZPATRICK*; S. WATSON; F. EMILSON. *Neurosci. Res. Australia, Inst. of Neurolog. Sciences, Prince of Wales Hosp., Inst. of Neurosci. and Physiology, Sahlgrenska Academy, Univ. of Gothenburg.*
- 2:00 JJ18 **825.06** Reference frame of inhibition-of-return during whole-body motion. J. J. TRAMPER*; P. MEDENDORP. *Radboud Univ.*
- 3:00 JJ19 **825.07** Cortical integration of vestibular signals for spatial updating of world-fixed and gaze-fixed targets. T. P. GUTTELING*; W. P. MEDENDORP. *Radboud Univ. Nijmegen.*
- 4:00 JJ20 **825.08** Coordinates of human visual and vestibular heading estimation. B. T. CRANE*. *Univ. of Rochester.*
- 1:00 JJ21 **825.09** Gravity influences the visual line bisection task. A. A. TARNUTZER*; G. BERTOLINI; C. J. BOCKISCH; D. STRAUMANN. *Univ. Hosp. Zurich.*
- 2:00 JJ22 **825.10** Determinants of motion sickness in tilting train simulations. G. I. BERTOLINI*; M. A. DURMAZ; K. FERRARI; M. AFTHINOS; D. STRAUMANN. *Dept. of Neurology, Univ. Hosp. Zurich.*

Wed. PM

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 JJ23 **825.11** Real time and low noise tracking of torsional eye movements with automatic eyelid detection. J. OTERO-MILLAN*; D. C. ROBERTS; A. LASKER; D. S. ZEE; A. KHERADMAND. *JOHNS HOPKINS UNVIVERSITY, JOHNS HOPKINS UNVIVERSITY.*
- 4:00 JJ24 **825.12** New high acceleration automatic whole body impulse test reveals VOR asymmetries not detectable with manual head impulse testing. K. EIBENBERGER; M. SCHUBERT; B. G. EIBENBERGER; D. C. ROBERTS; T. P. HASLWANTER*; J. P. CAREY. *Univ. of Applied Sci. Upper Austria, Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*
- 1:00 JJ25 **825.13** Human horizontal angular vestibulo-ocular reflex with and without otolith stimulation. E. W. BLOCK; W. A. FLETCHER; B. J. LANGE; G. MELVILL-JONES*. *Univ. Calgary.*
- 2:00 JJ26 **825.14** Vestibular coding strategies for representing natural self-motion. J. CARRIOT*; M. JAMALI; M. CHACRON; K. E. CULLEN. *McGill Univ.*
- 3:00 JJ27 **825.15** Vestibular loss: Gaze stability differences between active and passive walking. E. R. ANSON*; T. KIEMEL; J. P. CAREY; J. JEKA. *Univ. of Maryland, Univ. of Maryland, Johns Hopkins Med. Inst., Temple Univ.*
- 4:00 JJ28 **825.16** ▲ Are vestibular tests useful to identify senior at risk of fall? C. DE WAELE*; E. CHIAROVANO; G. LAMAS; P. VIDAL. *CESEM, UMR 8194, Pitie Salpetriere hospital.*
- 1:00 JJ29 **825.17** ▲ Directional acuity of whole-body perturbations during standing balance. M. J. PUNKTATLEE*; C. SHEPHARD; G. STANLEY; L. TING. *Georgia Inst. of Technol., Emory Univ.*
- 2:00 JJ30 **825.18** Functional imaging of human vestibular cortex activity elicited by skull tap and auditory tone burst. F. NOOHIBEZANJANI*; C. KINNAIRD; S. WOOD; J. BLOOMBERG; A. MULAVARA; R. SEIDLER. *Univ. of Michigan, Azusa Pacific Univ., NASA Johnson Space Ctr., Universities Space Res. Assn.*
- 4:00 JJ34 **826.04** Sensitization of trigeminal brainstem neurons during persistent tear insufficiency. M. M. RAHMAN*; K. OKAMOTO; A. KATAGIRI; R. THOMPSON; S. KAZUNARI; D. A. BEREITER. *Univ. of Minnesota Sch. of Dent., Nihon Univ. Sch. of Dent.*
- 1:00 JJ35 **826.05** ● Repeated infusion of prostaglandin E2 alone onto the dura induces chronic trigeminal sensitivity via TRPA1 channels. N. T. FRIED*; M. COOPER; M. L. OSHINSKY. *Thomas Jefferson Univ., Thomas Jefferson Univ.*
- 2:00 JJ36 **826.06** Elevated TNF-alpha levels in the TMJ promotes transient peripheral sensitization of trigeminal nociceptive neurons. P. L. DURHAM*; Z. L. DURHAM. *Missouri State Univ., Missouri State Univ.*
- 3:00 KK1 **826.07** The role of trigeminal spinal subnucleus caudalis in dry-tongue pain. Y. NAKAYA*; A. OKADA; Y. TSUBOI; M. SHINODA; Y. IMAMURA; K. IWATA. *JAPAN, Nihon Univ., Nihon Univ.*
- 4:00 KK2 **826.08** The effect of acute dry eye on the properties of rat corneal primary afferent cold receptors and ocular inflammation. M. KUROSE; J. WIERSMA; A. HATTA; S. BARTON; N. MECUM; K. YAMAMURA; I. D. MENG*. *Niigata Univ., Univ. New England, Univ. of Maine.*
- 1:00 KK3 **826.09** Morphological and physiological alterations evoked by orthodontic force in rats. A. SASAKI*; N. HASEGAWA; K. TAKAHASHI; G. YUN; T. NAGAO; N. SUDA; H. SAKAGAMI; K. ADACHI. *Meikai Univ., Meikai Univ. Sch. of Dent., Meikai Univ. Sch. of Dent., Meikai Univ. Sch. of Dent., Nihon Univ. Sch. of Dent., RIKEN Ctr. for Mol. Imaging Sci.*
- 2:00 KK4 **826.10** Brainstem BDNF contributes to hyperalgesic priming in a rat model of migraine. G. O. DUSSOR*; C. BURGOS-VEGA; T. PRICE. *Univ. of Texas At Dallas.*
- 3:00 KK5 **826.11** Expression of P2X3 receptor in the astrocytes and postsynaptic dendrites in the rat brain stem. W. MAH*; S. LEE; Y. KIM; G. CHOI; Y. CHO; J. BAE; Y. BAE. *Sch. of Dentistry, Kyungpook Natl. Univ.*
- 4:00 KK6 **826.12** Kappa opioid receptor-mediated antinociception of temporomandibular joint -responsive neurons in superficial laminae at spinomedullary junction in female rats depends on estrogen status. A. TASHIRO*; Y. NISHIDA; Y. NISHIDA. *Natl. Def. Med. Col.*
- 1:00 KK7 **826.13** Mechanistic studies on the effects of Botulinum toxin in Migraine: Role of transport in trigemino-somatic and trigemino-vascular afferents. R. RAMACHANDRAN*; T. L. YAKSH; C. LAM. *UCSD.*

POSTER

826. Trigeminal Processing of Pain

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 JJ31 **826.01** Hyperalgesic effects of endothelins in trigeminal neuralgia and their relationship with satellite glial cell activation in trigeminal ganglion. L. O. GOMES*; J. OLIVEIRA; G. RAE. *Univ. Federal De Santa Catarina, Univ. Federal de Santa Catarina, Univ. Federal de Santa Catarina.*
- 2:00 JJ32 **826.02** Increased 5-HT2A receptor activity and decreased 5-HT1A and 2C receptor activity contribute to enhanced excitatory synaptic transmission in the dorsal horn and the maintenance of neuropathic pain. Y. CHU; M. LI; J. LIU; W. GUO; A. CASTRO; K. REN; A. KELLER; R. DUBNER; F. WEI*. *Dent. Sch. & Prog. Neurosci. Univ. Maryland, Med. School, Univ. of Maryland.*
- 3:00 JJ33 **826.03** Anatomical evidence of pruriceptive trigeminothalamic and trigeminoparabrachial tract neurons in mice. E. E. CARSTENS*; E. CURTIS; T. NGUYEN; M. IODI CARSTENS; T. AKIYAMA. *Univ. California Davis, Temple Univ.*

POSTER

827. Spinal Cord Injury and Plasticity II

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 KK8 **827.01** Locomotor activity of feline ankle extensors and kinematics during level and slope walking after removal of stretch reflex from soleus and lateral gastrocnemius by self-reinnervation. R. J. GREGOR*; B. PRILUTSKY. *USC, Georgia Inst. of Technol.*

- 2:00 KK9 **827.02** Effects of spinal cord injury on the intrinsic firing properties of spinal motor neurons examined with perforated patch recordings from adult mice. A. HUSCH; B. R. JOHNSON*; R. M. HARRIS-WARRICK. *Cornell Univ., Cornell Univ.*
- 3:00 KK10 **827.03** Standing biomechanics of the knee and effect of electrical stimulation on muscle response in sci adults. M. B. BAYRAM*; M. DAMCOTT MITCHELL; R. PILKAR; P. BARRANCE; G. F. FORREST. *Kessler Fndn.*
- 4:00 KK11 **827.04** The effect of therapeutic deep brain stimulation of the mesencephalic locomotor region on structural plasticity of brainstem-spinal tracts in mice. L. C. BACHMANN*; N. A. GOOD; M. E. SCHWAB. *Dept. Hlth. Sci. and Technology, ETH Zürich, Brain Res. Inst.*
- 1:00 KK12 **827.05** Inducing plastic changes in lower motoneurons and functional improvement in stroke survivors. B. TAHAYORI*; D. KOCEJA. *Indiana Univ.*
- 2:00 KK13 **827.06** The interaction of Post activation depression and Presynaptic inhibition in the spinal circuits. D. M. KOCEJA*; B. TAHAYORI. *Indiana Univ.*
- 3:00 KK14 **827.07** Overexpression of CCL2 enhances capacity of axon regeneration in DRG sensory neurons. M. J. KWON*; H. SHIN; J. CHOI; D. HWANG; B. G. KIM. *Ajou Univ. Sch. of Med., Neurosci. Grad. Program, Dept. of Biomed. Sciences, Ajou Univ. Grad. Sch. of Med., Dept. of Neurology, Ajou Univ. Sch. of Med.*
- 4:00 KK15 **827.08** Do strategies to enhance performance of a skilled walking task change when sensory stimulation is combined with motor practice? T. LAM*; A. E. CHISHOLM. *Intl. Collaboration On Repair Discoveries, Univ. of British Columbia.*
- 1:00 KK16 **827.09** Muscle spindle feedback drives locomotor recovery and circuit reorganization after spinal cord injury. A. TAKEOKA*; I. VOLLENWEIDER; G. COURTINE; S. ARBER. *Friedrich Miescher Inst. for Biomed. Resear, Biozentrum, Univ. of Basel, SWISS FEDERAL INSTITUTE OF TECHNOLOGY, Friedrich Miescher Inst. of Biomed. Res.*
- 2:00 KK17 **827.10** Combination therapies of robot rehabilitation and viral delivery of brain-derived neurotrophic factor (BDNF) to lumbar cord promote large functional gains after a complete transection SCI in adult rats. J. LEE*; V. J. TOM; S. F. GISZTER. *Drexel Univ. Col. of Med., Drexel Univ. Col. of Med.*
- 3:00 KK18 **827.11** Activation of mTOR and Stat3 intrinsic mechanism combined with Chondroitinase and Neurotrophin 3 expressions enhances injured CST axons growth. Y. LIU*; J. HONG; X. TANG; G. SMITH. *Temple Univ. Sch. of Med.*
- 4:00 KK19 **827.12** Development and validity of the pediatric neuromuscular recovery scale. E. ARDOLINO; M. MULCAHEY; S. A. TRIMBLE; M. BIENKOWSKI; C. MULLEN; L. C. ARGETSINGER; A. L. BEHRMAN*. *Univ. of St. Augustine, Thomas Jefferson Univ., Frazier Rehab Inst., Kosair Charities Ctr. for Pediatric Neurorecovery, Shriners Hosp. for Children, Univ. of Louisville, Kentucky Spinal Cord Injury Res. Ctr.*
- 1:00 KK20 **827.13** Training strategies based on segmental versus descending circuitry following spinal cord injury: Impact on recovery. D. R. HOWLAND*; A. C. RISING; K. A. CHEFFER; K. L. WHYLAND; W. A. O'STEEN; A. L. BEHRMAN. *Robley Rex VA Med. Ctr., Robley Rex VA Med. Ctr., Kentucky Spinal Cord Injury Res. Ctr., Kosair Charities Ctr. for Pediatric Neurorecovery, Univ. of Louisville.*
- 2:00 KK21 **827.14** Segmental trunk control improves for children with spinal cord injury and locomotor training. S. A. TRIMBLE*; L. C. ARGETSINGER; D. R. HOWLAND; A. L. BEHRMAN. *Frazier Rehab Inst., Kosair Charities Ctr. for Pediatric Neurorecovery, Robley Rex VA Med. Ctr., Kentucky Spinal Cord Injury Res. Ctr., Univ. of Louisville.*
- 3:00 KK22 **827.15** Trunk control and pulmonary function in children with spinal cord injuries: a pilot study on the effects of locomotor training. D. G. TERTON DE PALEVILLE*; S. TRIMBLE; L. ARGETSINGER; M. LOVE; M. KLOBY; D. HOWLAND; A. BEHRMAN. *Univ. of Louisville, Univ. of Louisville, Univ. of Louisville, Frazier Rehab Inst., Univ. of Louisville, Univ. of Louisville, Robley Rex VA Med. Ctr.*
- 4:00 KK23 **827.16** Examining changes in spinal excitability during dual-task performance. D. DAY*; M. BOIVIN; A. ADKIN; C. TOKUNO. *Brock Univ.*
- 1:00 KK24 **827.17** Long-latency reflexes of elbow and shoulder muscles display reciprocal excitation of flexors and reciprocal excitation of extensors. I. KURTZER*; J. MERIGGI; N. PARIKH; K. SAAD. *New York Col. of Osteo. Med.*
- 2:00 KK25 **827.18** Implantation of human mesenchymal stem/progenitor cells (hMSCs) from bone marrow suppresses spinal cord injury mediated by pituitary adenylate cyclase activating polypeptide (PACAP). H. OHTAKI*; T. TSUMURAYA; A. SATO; Z. XU; J. WATANABE; M. MATSUMOTO; N. MURAI; H. HASHIMOTO; Y. HIRAIZUMI; T. NAKAMACHI; S. SHIODA. *Showa Univ. Sch. of Med., Osaka Univ., Showa Univ. Sch. of Med., Univ. of Toyama.*
- 3:00 KK26 **827.19** Variable gradient of intermuscular inhibition as preliminary evidence for spinal mediated modulation of task dependent limb behavior. M. A. LYLE*; N. E. BUNDERSON; C. TUTHILL; I. F. NIAZI; T. R. NICHOLS. *Georgia Inst. of Technol.*
- 4:00 KK27 **827.20** Reorganization of inhibitory force feedback to and from hind limb toe flexors after chronic spinal cord injury in the cat. I. F. NIAZI; T. NICHOLS*; D. R. HOWLAND. *Georgia Inst. of Technol., Georgia Inst. of Technol., Univ. of Louisville.*
- 1:00 KK28 **827.21** Astrocytic TNFR2 is essential for recovery of locomotor function following spinal cord injury. L. H. FUNK*; A. HACKETT; J. BETHEA; J. LEE. *Univ. of Miami, Univ. of Miami, Drexel Univ.*
- 2:00 KK29 **827.22** Loading-related spinal plasticity assume the contribution of functional recovery after spinal cord injury. K. MORIOKA*; T. TAZOE; X. MA; C. F. GUANDIQUE; L. VANCITTERS; J. R. HUIE; J. C. BRESNAHAN; M. S. BEATTIE; S. TANAKA; A. R. FERGUSON; T. OGATA. *Brain and Spinal Injury Center, UCSF, Res. Institute, Natl. Rehabil. Ctr. for Persons With the Disabilities, Univ. of Pittsburgh, Fac. of Medicine, The Univ. of Tokyo.*
- 3:00 KK30 **827.23** Electrophysiological characterization of cortical reorganization after C4/C5 lateral hemisection in common marmosets. A. KOSUGI*; T. KONDO; K. YOSHINO-SAITO; H. J. OKANO; M. NAKAMURA; H. OKANO; J. USHIBA. *Keio Univ., Keio Univ. Sch. of Med., Jikei Univ. Sch. of Med., Keio Univ. Sch. of Med., Keio Univ. Fac. of Sci. and Technol.*
- 4:00 KK31 **827.24** Glutamatergic NMDA receptor expression in phrenic motoneurons following cervical spinal cord injury. H. M. GRANSEE; G. F. MARTINEZ-GALVEZ; M. A. GONZALEZ PORRAS; J. C. DIAZ SOTO; J. M. ZAMBRANO; W. ZHAN; G. C. SIECK; C. B. MANTILLA*. *Mayo Clin., Mayo Clin.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 KK32 **827.25** Impact of glutamatergic NMDA signaling on recovery of phrenic activity after cervical spinal cord injury. C. B. MANTILLA; W. ZHAN; L. G. ERMILOV; H. M. GRANSEE; G. C. SIECK*. *Mayo Clin., Mayo Clin.*
- 2:00 LL1 **827.26** Olfactory ensheathing cells and aFGF transplant promotes functional recovery and remyelination in the chronic transected rat spinal cord. L. BOTERO*; R. M. GOMEZ; G. K; O. CHAPARRO. *Univ. Nacional De Colombia, Univ. de la Sabana, Univ. Nacional de Colombia.*
- 3:00 LL2 **827.27** Control mechanisms underlying an involuntary movement: The effect of resistive and assistive perturbation on the Kohnstamm phenomenon. J. A. DE HAVAS; S. ITO; H. GOMI*; P. HAGGARD. *Univ. Col. London, NTT Communication Sci. Labs.*

POSTER

828. Neuromodulation

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 LL3 **828.01** Corticosterone modulation of the crayfish neuromuscular system. M. E. JACKSON*. *Central Connecticut State Univ.*
- 2:00 LL4 **828.02** Identification and characterization of neuromodulator/neurotransmitter receptor expression in the crustacean stomatogastric nervous system. D. J. SCHULZ*; K. M. LETT; E. MARDER. *Univ. Missouri, Brandeis Univ.*
- 3:00 LL5 **828.03** Entrainment of beta band power in behaving macaque S2. Y. KAJIKAWA*; S. HAEGENS; C. SCHROEDER. *Nathan Kline Inst., Columbia Univ.*
- 4:00 LL6 **828.04** Protein synthesis is required for endogenous bursting after long term decentralization. S. EISENBACH; J. P. GOLOWASCH*. *NJIT, NJIT.*
- 1:00 LL7 **828.05** Modulation of the murine spinal locomotor network by astrocytes. D. ACTON; G. B. MILES*. *Univ. St Andrews.*
- 2:00 LL8 **828.06** Dopamine enabled, activity-dependent, bi-directional regulation of the hyperpolarization-activated current by protein kinase A (PKA) and calcineurin. A. R. PARKER; W. C. KRENZ; D. J. BARO*. *Georgia State Univ.*
- 3:00 LL9 **828.07** Voltage dependence of neuromodulator-activated current is regulated by g-proteins and myosin light chain kinase. M. L. GRAY*; J. GOLOWASCH. *Rutgers Univ., New Jersey Inst. of Technol., Rutgers Univ.*
- 4:00 LL10 **828.08** Anatomical analysis of multiple inputs targeting a projection neuron. S. E. SWALLIE*; A. MONTI; D. M. BLITZ. *Miami Univ.*
- 1:00 LL11 **828.09** Differential distribution of two C-type allatostatins in the stomatogastric nervous system of the lobster *Homarus americanus*. P. S. DICKINSON*; M. C. YOUN; E. S. DICKINSON; J. R. KOHN; A. E. CHRISTIE. *Bowdoin Coll., Univ. of Hawaii at Manoa.*
- 2:00 LL12 **828.10** Neuromodulation reduces variability in a pattern-generating neural network. A. W. HAMOOD*; E. MARDER. *Brandeis Univ.*
- 3:00 LL13 **828.11** Serotonin adjust actions of myelinated afferents via modulation of presynaptic inhibition by activation of predominantly 5-HT1 receptors in the mouse spinal cord. D. GARCÍA-RAMÍREZ*; J. R. CALVO; S. HOCHMAN; J. N. QUEVEDO. *CINVESTAV, CINVESTAV, Emory Univ.*
- 4:00 LL14 **828.12** The role of adenosine receptors in the modulatory effects of ethanol on the mouse spinal network controlling locomotor output. J. ACEVEDO; A. SANTANA-ALMANSA; M. E. DIAZ-RIOS*. *Univ. of Puerto Rico, Univ. of Puerto Rico, Univ. Puerto Rico.*
- 1:00 LL15 **828.13** Various modulatory substances differentially affect stable rhythmic output across temperature. S. A. HADDAD*; D. J. POWELL; E. MARDER. *Brandeis Univ.*
- 2:00 LL16 **828.14** Spatial mapping of receptor distributions on single identified neurons. A. G. OTOPALIK*; M. R. BANGHART; B. L. SABATINI; E. MARDER. *Brandeis Univ., Howard Hughes Med. Institute, Harvard Med. Sch., Volen Ctr. for Complex Systems, Brandeis Univ.*
- 3:00 LL17 **828.15** Activity-dependent regulation of intrinsic properties of CPG neurons by an inhibitory peptide. D. SALLOUM*; J. GOLOWASCH. *NJIT.*
- 4:00 LL18 **828.16** CSF-contacting neurons modulate slow locomotion and intersegmental coordination. K. FIDELIN*; J. HUBBARD; C. STOKES; A. BARADEL; F. DEL BENE; C. WYART. *Inst. Du Cerveau Et De La Moelle Épinière, Inst. Curie.*
- 1:00 LL19 **828.17** The development and cellular mechanisms underlying dopaminergic modulation of spinal motor networks in *Xenopus* tadpoles. L. D. PICTON*; K. T. SILLAR. *Univ. of St Andrews.*
- 2:00 LL20 **828.18** ▲ Does the ganglionic sheath serve as a passive regulator of neuromodulation in the stomatogastric nervous system of the American lobster, *Homarus americanus*? L. J. KELLER*; R. J. DENNISON; A. E. CHRISTIE; P. S. DICKINSON. *Bowdoin Coll., Univ. of Hawaii at Manoa.*
- 3:00 LL21 **828.19** Where temporal coding matters: the role of short-term plasticity of a neuromuscular junction in shaping postsynaptic responses. Y. ZHANG*; N. DAUR; D. BUCHER; F. NADIM. *New Jersey Inst. of Technology, New Jersey Inst. of Technol., Rutgers Univ.*
- 4:00 LL22 **828.20** Regulation of gene expression by the neuromodulator Proctolin. L. LEWIS*; C. BRAUN; S. KALUZIAK; S. VOLLMER; J. AYERS. *Northeastern Univ., Harvard Med. Sch., Northeastern Univ.*
- 1:00 LL23 **828.21** High sensitivity of postsynaptic responses to neuromodulator-induced changes in presynaptic spike propagation. N. DAUR*; F. NADIM; D. BUCHER. *New Jersey Inst. of Technol.*
- 2:00 LL24 **828.22** Projection neuron activity pattern and rate determines CPG output. R. M. SPENCER*; D. M. BLITZ. *Miami Univ.*
- 3:00 LL25 **828.23** A new method for detection of spontaneous rhythmic activity from ventral roots of the neonatal mouse isolated spinal cord. S. A. SHARPLES*; N. OSACHOFF; P. J. WHELAN. *Univ. of Calgary, Hotchkiss Brain Inst., Univ. of British Columbia, Univ. of Calgary.*
- 4:00 LL26 **828.24** Distinct microcircuit response to equivalent input from a full vs. partial projection neuron population. G. F. COLTON; M. P. NUSBAUM*. *Perelman Sch. of Medicine, Univ. of Pennsylvania.*

- 1:00 LL27 **828.25** Cellular basis for repetition priming and task-switch cost in an *Aplysia* CPG. M. H. PERKINS*; E. C. CROPPER; K. R. WEISS. *The Icahn Sch. of Med. At Mt. Sinai*.
- 2:00 LL28 **828.26** Computational modelling and analysis of the impact of dopamine on the crustacean pyloric rhythm circuit. J. S. STEYN*; T. ALDERSON; P. ANDRAS. *Newcastle Univ., Inst. of Neurosci., Keele Univ.*
- 3:00 MM1 **828.27** Neuromodulator-induced rescue of temperature-elicited motor pattern breakdown. C. STAEDLE*; W. STEIN. *Illinois State Univ., Ulm Univ.*
- 4:00 MM2 **828.28** Electrophysiological and mass spectral investigation of long-term *in vivo* motor activity and neuropeptide release in the crab cancer borealis. A. M. YARGER*; Z. LIANG; L. LI; W. STEIN. *Illinois State Univ., Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

POSTER

829. Muscle Physiology and Biochemistry

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 MM3 **829.01** Seasonal changes in contractile properties of the iliofibularis muscle of *Sceloporus torquatus* lizard: A study among sexes and color morphs. E. QUINTANA; T. RUBIO-BLANCO; P. GUEVARA-FIORE; D. SALINAS-VELARDE; J. GONZÁLEZ-MORALES; V. FAJARDO*. *Ctr. Tlaxcala de Biología de la Conducta, UAT, Doctorado en Ciencias Biológicas, UAT, Escuela de Biología, Benemérita Univ. Autónoma de Puebla, Facultad de Ciencias, Univ. Autónoma del Estado de México, Univ. Autónoma Del Estado De México.*
- 2:00 MM4 **829.02** *In vivo* metabolism of TMPyP4 generates acetylcholinesterase inhibitor-like activity. E. CAI*; M. WANG; N. FUJIWARA; J. CAVE. *Burke Med. Res. Inst., Weill Cornell Med. Col.*
- 3:00 MM5 **829.03** Distribution and fractal organization of fiber types in pelvic and perineal muscles related to micturition and reproduction. K. LÓPEZ-GARCÍA*; S. MARISCAL-TOVAR; C. X. HINOJOSA; E. RODRÍGUEZ-TORRES; M. MARTÍNEZ-GÓMEZ; F. CASTELÁN; I. JIMÉNEZ-ESTRADA. *Univ. Autónoma De Tlaxcala, CINVESTAV-IPN, Univ. Autónoma de Hidalgo, Univ. Nacional Autónoma de México.*
- 4:00 MM6 **829.04** Effect of chronic undernourishment on the proportion of muscle fiber types in fascicles of the Extensor Digitorum Longus muscle in the young male rat. I. JIMÉNEZ-ESTRADA*; C. X. HINOJOSA; K. LÓPEZ-GARCÍA; B. SEGURA; J. C. GUADARRAMA; I. JIMÉNEZ-ESTRADA. *IPN Ctr. Invst & Adv Studies, Univ. Nacional Autónoma de México.*
- 1:00 MM7 **829.05** The amplitude fluctuation of the Hoffmann reflex is modified differently by a track workout depending on the fitness of the medial gastrocnemius muscle. M. E. CEBALLOS; J. J. SALDAÑA; E. HERRERA; A. L. GUTIÉRREZ; E. MANJARREZ; J. LOMELI*. *Escuela Superior Med. IPN, UNEVE, BUAP.*
- 2:00 MM8 **829.06** The response of the pubococcygeus muscle during the urethrogenital reflex in the male rat. I. XICOHTÉNCATL RUGERIO*; D. CORONA-QUINTANILLA; L. NICOLÁS-TOLEDO; F. CASTELÁN; M. MARTÍNEZ-GÓMEZ; J. RODRÍGUEZ-ANTOLÍN. *Univ. Autónoma De Tlaxcala, Univ. Veracruzana, Inst. de Investigaciones Biomédicas, UNAM.*
- 3:00 MM9 **829.07** Interaction between myostatin and the GH/IGF-1 in muscle. N. LOZIER*; S. DE LACALLE. *Ohio Univ.*
- 4:00 MM10 **829.08** Estrogenic sensitivity of pubococcygeus and bulbospongiosus muscles is related with aromatase expression in female rabbits. M. D. CARRASCO RUIZ*; V. GARCIA VILLAMAR; K. LOPEZ GARCIA; O. SANCHEZ GARCIA; P. PACHECO CABRERA; E. CUEVAS ROMERO; M. MARTINEZ GOMEZ; F. CASTELAN. *Univ. Autonoma De Tlaxcala, Doctorado en Neuroetología, CINVESTAV, Univ. Nacional Autónoma de México, Inst. de Investigaciones Biomédicas, Univ. Nacional Autónoma de México.*
- 1:00 MM11 **829.09** Aggravation of dystrophic phenotype with chronic exercise creates widened and more relevant therapeutic window in the MDX model of duchenne muscular dystrophy (DMD). P. SWEENEY; T. AHTONIEMI; J. PUOLIVÄLI; A. NURMI; S. ALASTALO; J. OKSMAN; D. WELLS; S. SAARIO*. *Charles River Discovery Res. Services Finland, Royal Vet. Col. (University of London).*
- 2:00 MM12 **829.10** Characterization of the static and dynamic forces involved into the Octopus vulgaris arm muscle performance. L. ZULLO*; N. NESHEN; F. BENFENATI; B. HOCHNER. *Inst. Italiano di Tecnologia, Silberman Inst. of Life Sciences, Hebrew Univ., Sch. of Marine Sci., Univ. of Genova, Interdisciplinary Ctr. for Neural Computation.*
- 3:00 MM13 **829.11** ▲ A novel genetic cross to empower *in vivo* investigation of the action of titin and giant sarcomere associated proteins in neuromuscular plasticity. P. DONES*; J. L. KRANS. *Western New England Univ.*
- 4:00 MM14 **829.12** Sensory encoding by muscle receptors can be affected by epimuscular myofascial loads. H. A. SMILDE*; T. C. COPE; G. C. BAAN; P. NARDELLI; H. MAAS. *Wright State Univ., VU Univ.*
- 1:00 MM15 **829.13** MRI/MRS analysis of lower hindlimb and hip muscles of dysferlin deficient mice reveal muscle specific differences in disease progression. H. WINDISH; T. T. AHTONIEMI*; J. OKSMAN; J. PUOLIVÄLI; K. LEHTIMÄKI; A. NURMI; D. ALBRECHT. *Jain Fndn., Charles River Discovery Res. Services.*
- 2:00 MM16 **829.14** Temporal profile of T2 MRI and 1H-MRS in the MDX mouse model of Duchenne muscular dystrophy (DMD). P. SWEENEY*; T. AHTONIEMI; J. PUOLIVÄLI; T. LAITINEN; K. LEHTIMÄKI; A. NURMI; D. WELLS. *Charles River DRS Finland, Royal Vet. Col. (University of London).*
- 3:00 MM17 **829.15** Phantom weight sensation induced by application of constrictive force on the forearm accompanies increased muscle activity. T. MITSUDA*; S. TANAKA. *Ritsumeikan University, Col. of Information Sci. and Engin., Ritsumeikan Univ.*
- 4:00 MM18 **829.16** The muscle cell line C2C12 transfected with mutant valosin-containing protein (VCP) exhibits resolution deficiencies upon cellular insults. C. J. RODRIGUEZ-ORTIZ*; J. C. FLORES; J. VALENZUELA; M. KITAZAWA. *UC Merced.*

Wed. PM

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POSTER

830. Posture and Gait: Kinematics, Muscle Activity, Exercise and Fatigue, and Biomechanics

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – *Walter E. Washington Convention Center, Halls A-C*

- 1:00 MM19 **830.01** Single unit representations of lower and upper extremity movements in the subthalamic nucleus and thalamus. A. TANKUS*; A. MIRELMAN; N. GILADI; I. FRIED; J. M. HAUSDORFF. *Tel Aviv Sourasky Med. Ctr., Tel Aviv Sourasky Med. Ctr., Tel Aviv Sourasky Med. Ctr., Tel Aviv Univ., Tel Aviv Univ., UCLA, Harvard Med. Sch.*

2:00 MM20 **830.02** The muscle torque coordination to stabilize upright standing posture. E. PARK*; D. S. REISMAN; G. SCHONER; H. REIMANN. *Univ. of Delaware, Ruhr Univ.*

3:00 MM21 **830.03** Ankle plantarflexor activity is more strongly related to centre of pressure velocity than displacement with external perturbation in people with stroke and healthy controls. C. L. POLLOCK*; T. D. IVANOVA; A. GALLINA; T. M. VIEIRA; S. J. GARLAND. *Univ. of British Columbia, Politecnico di Torino, Univ. Federal do Rio de Janeiro.*

4:00 MM22 **830.04** The effect of simulated microgravity on the motor control of landing from a jump. C. N. GAMBELLI; D. THEISEN; P. A. WILLEMS; B. SCHEPENS*. *Univ. catholique de Louvain/Inst. of Neurosci. / LOCO, Ctr. de Recherche Publ. de la Santé.*

1:00 MM23 **830.05** Recruitment of subcortical muscle synergies during balance and walking in individuals with Parkinson's disease can be improved through rehabilitation. J. L. ALLEN*; J. L. MCKAY; M. E. HACKNEY; L. H. TING. *Emory Univ., Georgia Inst. of Technol., Atlanta VA Med. Ctr.*

2:00 MM24 **830.06** A virtual reality obstacle course to improve lateral balance control in lower limb trauma patients. R. C. SHEEHAN; J. H. RYLANDER; J. M. WILKEN; J. B. DINGWELL*. *Univ. of Texas at Austin, Brook Army Med. Ctr., Univ. of Texas At Austin.*

3:00 MM25 **830.07** Timing of fast online corrections after tripping. Z. POTOCANAC; M. PIJNAPPELS; S. VERSCHUEREN; J. VAN DIEËN; J. E. DUYSSENS*. *KU Leuven, VU Univ. Amsterdam, KU Leuven, Dept of Kinesiology (faber).*

4:00 MM26 **830.08** Walking dynamics in preadolescents with and without Down syndrome. J. WU*; M. BEERSE; T. AJISAFE; H. LIANG. *Georgia State Univ.*

1:00 MM27 **830.09** Locomotor adaptation to support surface perturbations is characterized by environmental decoupling. D. A. EIHEMA*; J. H. CHIEN; N. STERGIOU; M. SCOTT-PANDOLF; B. PETERS; J. BLOOMBERG; M. MUKHERJEE. *Univ. of Nebraska At Omaha, Wyle Integrated Sci. and Engin., Johnson Space Ctr.*

2:00 MM28 **830.10** Use of spike-triggered averaging (STA) to determine the contribution of a verbal reaction time task to center of pressure (CoP) movements during a dual-task. M. BILODEAU*; M. TAYLOR; V. MÉNARD; D. MCEWEN. *Univ. of Ottawa, Bruyère Res. Inst., Univ. of Ottawa, Univ. of Ottawa.*

3:00 MM29 **830.11** Work potential of *Drosophila* larval bodywall muscles before and after actomyosin activation: implications of the winding filament theory. J. L. KRANS*; A. S. MACKIE; A. E. SCIBELLI. *WNE, Western New England Univ.*

2:00 MM32 **830.14** Effects of adiposity on postural stability in overweight and obese adults. H. MENG*; B. LEE; C. LAYNE; S. GORNIK. *Univ. of Houston.*

3:00 MM33 **830.15** How humans use visual optic flow to regulate stepping movements during walking. M. SALINAS*; J. B. DINGWELL. *The Univ. of Texas At Austin.*

4:00 MM34 **830.16** Force and torque profiles of stick insects walking on compliant surfaces. J. SCHMITZ*; C. J. DALLMANN. *Univ. of Bielefeld.*

1:00 MM35 **830.17** Event-related brain potential and postural muscle activity during standing on oscillation floor with the joints of knee, hip and trunk fixed. K. FUJIWARA*; M. IREI; N. KIYOTA. *Kanazawa Univ., Osaka Hlth. Sci. Univ.*

2:00 MM36 **830.18** Postural adjustments are associated with rapid corrections to the upper limb and are dependent on the task goal. C. R. LOWREY*; J. Y. NASHED; S. H. SCOTT. *Queens Univ.*

3:00 NN1 **830.19** Does successful adapted tango rehabilitation improve postural response scaling in individuals with Parkinson's disease? K. C. LANG*; J. L. MCKAY; H. COMPTON; M. HARRIS; J. PERRY; C. ROBERTS; M. E. HACKNEY; L. H. TING. *Emory Univ., Georgia Tech. and Emory Univ., Emory Univ., Emory Sch. of Med., Atlanta VA Med. Ctr.*

4:00 NN2 **830.20** Tactile information from special underwear improves sitting posture of upper body both at rest and computer work. Y. ATOMI*; T. ATOMI; K. TANAKA; N. HIROSE; M. SHIMIZU; Y. KOYAMA; H. SUZUKI. *Tokyo Univ. of Agr. and Technol., Teikyo Univ. of Sci., RenYou Co. Ltd., Toray Industries, Inc.*

POSTER

831. Posture and Gait

Theme D: Sensory and Motor Systems

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

1:00 NN3 **831.01** Strategies for avoidance of small obstacles on the walking path. V. MARLINSKI*; K. M. I. CHU; S. H. SETO; M. D. FOE; J. H. TRAN; M. H. IZADY; I. N. BELOOZEROVA. *Barrow Neurolog. Institute. Div. of Neurobio.*

2:00 NN4 **831.02** ▲ A reinforcement approach to gait rehabilitation. C. HOYT*. *Northeastern Univ.*

3:00 NN5 **831.03** ▲ Hip and ankle responses for reactive balance emerge from task-level control of trunk and center-of-mass kinematics: A simulation study. C. VERSTEEG*; J. L. ALLEN; L. TING. *Georgia Inst. of Technol., Emory Univ.*

4:00 NN6 **831.04** An FES controller for arm stability predicts human behavior in interaction tasks. Y. LIAO*; E. M. SCHEARER; E. J. PERREAULT; M. C. TRESCH; K. M. LYNCH. *Dept. of Mechanical Engineering, Northwestern Univ., Northwestern Univ., Northwestern Univ., Northwestern Inst. on Complex Systems.*

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831. Posture and Gait

Theme D: Sensory and Motor Systems

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- 2:00 NN4 **831.02** ▲ A reinforcement approach to gait rehabilitation. C. HOYT*. *Northeastern Univ.*
- 3:00 NN5 **831.03** ▲ Hip and ankle responses for reactive balance emerge from task-level control of trunk and center-of-mass kinematics: A simulation study. C. VERSTEEG*; J. L. ALLEN; L. TING. *Georgia Inst. of Technol., Emory Univ.*
- 4:00 NN6 **831.04** An FES controller for arm stability predicts human behavior in interaction tasks. Y. LIAO*; E. M. SCHEARER; E. J. PERREAULT; M. C. TRESCH; K. M. LYNCH. *Dept. of Mechanical Engineering, Northwestern Univ., Northwestern Univ., Northwestern Univ., Northwestern Univ., Northwestern Univ., Northwestern Inst. on Complex Systems.*

- 1:00 NN7 **831.05** Intracortical inhibition is reduced during the control of upright standing in both young and old adults. S. PAPEGAAIJ*; W. TAUBE; S. BAUDRY; J. NÉGYESI; T. HORTOBÁGYI. *Univ. of Groningen, Univ. of Fribourg, Univ. Libre de Bruxelles, Semmelweis Univ., Northumbria Univ.*
- 2:00 NN8 **831.06** Coherence analysis of body segments during quiet stance over inclined surfaces. C. R. SILVA; A. P. PICON; A. F. KOHN*. *Univ. of Sao Paulo, Univ. of Sao Paulo.*
- 3:00 NN9 **831.07** Locomotor sequence learning in visually guided walking. J. T. CHOI*; P. JENSEN; J. B. NIELSEN. *Univ. of Massachusetts Amherst, Univ. of Copenhagen.*
- 4:00 NN10 **831.08** Revealing the cortical control of balance reactions during spontaneously occurring instability. J. PAROKARAN VARGHESE*; K. B. BEYER; V. MIYASIKE-DASILVA; L. WILLIAMS; W. E. MCILROY. *Univ. of Waterloo, Canadian Partnership for Stroke Recovery, Sunnybrook Res. Inst.*
- 1:00 NN11 **831.09** Neural mechanisms and functional correlates of altered postural responses to perturbed standing balance with chronic low back pain. J. V. JACOBS*; C. L. ROY; J. R. HITT; R. E. POPOV; S. M. HENRY. *Univ. of Vermont.*
- 2:00 NN12 **831.10** Modeling differences in neuromotor balance control in response to falls-prevention training. J. E. BARTON; D. N. SAVIN; M. W. ROGERS; R. MACKO. *Univ. of Maryland, VA, Univ. of Maryland.*
- 3:00 NN13 **831.11** Strategies for controlling lateral stepping movements in human walking. J. RYLANDER*; J. M. WILKEN; J. P. CUSUMANO; J. B. DINGWELL. *The Univ. of Texas at Austin, Dept. of Orthopedics and Rehabilitation, Ctr. for the Intrepid, Brooke Army Med. Ctr., Engin. Sci. and Mechanics, Penn State Univ.*
- 4:00 NN14 **831.12** • Feasibility of an affordable custom-designed device with immersive virtual environment for postural assessment. A. P. DUMONT; K. O. APPIAH-KUBI; M. DUMONT; W. WRIGHT*. *Temple Univ.*
- 1:00 NN15 **831.13** Influence of a simultaneous cognitive task on obstacle avoidance abilities in post-stroke individuals with and without visuospatial neglect. G. ARAVIND; M. VILLENEUVE; T. OGOURTSOVA; A. LAMONTAGNE*. *McGill Univ., Feil and Oberfeld Res. Center, Jewish Rehabil. Hosp., McGill Univ.*
- 2:00 NN16 **831.14** Vestibular and somatosensory convergence in postural equilibrium control: Insights from spaceflight and bedrest studies. A. P. MULAVARA; C. D. BATSON; R. E. BUXTON; A. H. FEIVISON; I. S. KOFMAN; S. M. C. LEE; C. A. MILLER; B. T. PETERS; T. PHILLIPS; S. H. PLATTS; L. L. PLOUTZ-SNYDER; M. F. RESCHKE; J. W. RYDER; M. B. STENGER; L. C. TAYLOR; H. S. COHEN*; J. J. BLOOMBERG. *Universities Space Res. Assn., MEI Technol., Univ. of Houston, NASA, Wyle Science, Technology, & Engin. Group, Baylor Col. Med.*
- 3:00 NN17 **831.15** Effects of increased attentional demand on postural control vary across healthy individuals. K. TERRY*; J. TO-ALEMANJI; S. LYDICK. *George Mason Univ.*
- 4:00 NN18 **831.16** Stabilizing CoM velocity instead of position explains the slow drift in quiet stance. H. REIMANN*; G. SCHOENER. *Ruhr-University Bochum.*
- 1:00 NN19 **831.17** Evoked cortical potentials associate with center of mass displacement in response to an induced loss of standing balance. R. E. POPOV*; C. L. ROY; J. R. HITT; S. M. HENRY; J. V. JACOBS. *Univ. of Vermont, Univ. of Vermont.*

- 2:00 NN20 **831.18** The use of mechanical and visual perturbations to probe the control of human walking. D. LOGAN*; T. KIEMEL; J. JEKA. *Univ. of Maryland, Temple Univ.*

POSTER

832. Social Behavior: Oxytocin

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

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 NN21 **832.01** Sex differences in aggression in response to serotonin (5HT) 1a receptor activation in the anterior hypothalamus (AH). J. I. TERRANOVA*; Z. E. SONG; T. E. LARKIN; A. NORVELLE; H. E. ALBERS. *Georgia State Univ., Ctr. for Behavioral Neurosci.*
- 2:00 NN22 **832.02** Sex differences in the regulation of arginine-vasopressin (AVP) V1a receptors by social experience: Role in the expression of aggression. A. P. ROSS*; E. Z. SONG; H. E. ALBERS. *Georgia State Univ.*
- 3:00 NN23 **832.03** Microinjection of arginine-vasopressin (AVP) in the ventral tegmental area (VTA) enhances conditioned place preference for social interaction. Z. E. SONG*; T. E. LARKIN, II; H. E. ALBERS. *Georgia State Univ.*
- 4:00 NN24 **832.04** A peripherally administered positive allosteric modulator of the oxytocin receptor enhances partner preference formation in prairie voles (*Microtus ochrogaster*). K. A. KITTELBERGER*; H. SALAH-UDDIN; C. WAHLESTEDT; L. J. YOUNG. *Emory Univ., Univ. of Miami Miller Sch. of Med.*
- 1:00 NN25 **832.05** Inhaling oxytocin alters social dominance behavior in rhesus macaques. D. L. XIE*; J. GARIEPY; E. DU; M. L. PLATT. *Duke Univ., Duke Inst. for Brain Sci., Dept. of Neurobio.*
- 2:00 NN26 **832.06** Treatment with centrally available oxytocin alters maintenance responsibilities in well-established adult sociosexual bonds. J. CAVANAUGH*; M. HUFFMAN; A. HARNISCH; J. A. FRENCH. *Univ. of Nebraska - Omaha, Univ. of Nebraska - Omaha.*
- 3:00 NN27 **832.07** Early social environment interacts with oxytocin receptor gene (*Oxtr*) variants to influence adult partner preference in monogamous prairie voles (*Microtus ochrogaster*). T. H. AHERN*; L. B. KING; L. J. YOUNG; K. MORSE; S. REED; K. LUCYK; V. HEGEDUS. *Quinnipiac Univ., Emory Univ., Quinnipiac Univ.*
- 4:00 NN28 **832.08** Ontogenesis of oxytocin peptide expression in the prairie vole. C. E. BARRETT*; R. TRIANA DEL RIO; S. E. ARAMBULA; L. J. YOUNG. *Cntr. Translational Social Neurosci, Emory Univ.*
- 1:00 NN29 **832.09** An oxytocin-induced facilitation of neural and emotional responses to social touch correlates inversely with autism traits. D. SCHEELE*; K. M. KENDRICK; C. KHOURI; E. KRETZER; T. E. SCHLÄPFER; B. STOFFEL-WAGNER; O. GÜNTÜRKÜN; W. MAIER; R. HURLEMANN. *Univ. of Bonn, Univ. of Electronic Sci. & Technol. of China (UESTC), Univ. of Bonn, Ruhr Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 NN30 **832.10** Different oxytocin receptor polymorphisms are associated with independent effects on gray and white matter volume in the human brain. T. NGUYEN*; G. HANSEN; J. KIPPENHAN; B. KOLACHANA; P. J. SCHMIDT; K. F. BERMAN. *Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth.*
- 3:00 NN31 **832.11** Central administration of oxytocin produced a different behavioral syndrome in the high-respect to low-yawning subline of Sprague-Dawley rats. J. EGUIBAR*; M. CORTES; A. UGARTE; O. ISIDRO. *Benemerita Univ. Autonoma de Puebla, Inst. of Physiol., Inst. of Physiol.*
- 4:00 NN32 **832.12** Mechanisms underlying sex-specific regulation of social play by vasopressin: An *in vivo* microdialysis study. R. BREDEWOLD*; J. K. SCHIAVO; M. VERREIJ; A. H. VEENEMA. *Boston Col.*
- 1:00 NN33 **832.13** ● Oxytocin administration induces sex-specific alterations in brain activation in awake rodents using fMRI. K. M. DUMAIS*; P. KULKARNI; C. F. FERRIS; A. H. VEENEMA. *Boston Col., Northeastern Univ.*
- 2:00 NN34 **832.14** Age differences in the brain oxytocin system: Implications for juvenile social motivation. C. J. SMITH*; M. L. POEHLMANN; K. B. WILKINS; R. BREDEWOLD; A. H. VEENEMA. *Boston Col.*
- 3:00 NN35 **832.15** Mechanisms underlying sex differences in the brain oxytocin system. N. B. WORLEY*; L. E. NEWMAN; A. H. VEENEMA. *Boston Col.*
- 4:00 NN36 **832.16** Vasotocin and V1aR exert organizational influences on courtship and pair maintenance behaviors in the zebra finch. N. M. BARAN*; M. L. TOMASZYCKI; E. ADKINS-REGAN. *Cornell Univ., Wayne State Univ., Cornell Univ.*
- 1:00 OO1 **832.17** Genetic variation in the oxytocin receptor exerts robust regionally-selective control of expression to facilitate prairie vole pair bond formation. L. B. KING*; K. INOUE; L. J. YOUNG. *Emory Univ., Emory Univ., Emory Univ.*
- 2:00 OO2 **832.18** Oxytocin-mediated FOS expression in social information processing brain areas in male prairie voles following cohabitation with a female. Z. V. JOHNSON*; Y. JAMAL; M. XIAO; L. J. YOUNG. *Yerkes NPRC.*
- 3:00 OO3 **832.19** The effects of intensive meditation training on oxytocin, vasopressin, and attachment style. Q. A. CONKLIN; B. G. KING; A. P. ZANESCO; T. L. JACOBS; J. J. POKORNY; S. R. AICHELE; D. A. BRIDWELL; K. A. MACLEAN; K. L. BALES; P. R. SHAVER; E. L. ROSENBERG; B. A. WALLACE; E. FERRER; B. K. SAHDRA; C. D. SARON*. *Univ. of California At Davis, Univ. of Geneva, The Mind Res. Network, Johns Hopkins Univ. Sch. of Med., Univ. of California At Davis, Santa Barbara Inst. for Consciousness Studies, Australian Catholic Univ.*
- 4:00 OO4 **832.20** Marmosets' responses to inequity following oxytocin manipulation. A. MUSTOE*; J. A. FRENCH. *Univ. of Nebraska At Omaha, Univ. of Nebraska at Omaha.*
- 1:00 OO5 **832.21** Effect of oxytocin on rat neural activity and behavior in a reward-based task. L. A. DAVIES; A. FONTANINI; G. LA CAMERA*. *Stony Brook Univ.*
- 2:00 OO6 **832.22** Mechanisms underlying oxytocin's protective effects on phencyclidine-disrupted prepulse inhibition of the acoustic startle reflex. M. E. RICH*; H. K. CALDWELL. *Kent State Univ.*

POSTER

833. Integration of Peripheral Signals: Regulators

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

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 OO7 **833.01** Neuropeptide Y inhibits visceral afferent activation of NTS catecholamine neurons through both Pre- and Post-synaptic mechanisms. H. ZHAO*; S. M. APPELYARD. *Washington State Univ.*
- 2:00 OO8 **833.02** Nicotine effects on catecholamine neurons in the hindbrain are dependent on glucose concentration. S. PAGE*; M. ZHU; B. L. ROBERTS; S. APPELYARD. *Washington State Univ., Washington State Univ.*
- 3:00 OO9 **833.03** Meal structure of nocturnal feeding altered by a long-acting cholecystokinin agonist, (pGlu-Gln)-CCK-8 in rats. L. WANG*; J. R. REEVE, Jr. *UCLA.*
- 4:00 OO10 **833.04** High dietary fat intake influences the activation of specific hindbrain and hypothalamic nuclei by the satiety factor oleoylethanolamide. B. TEMPESTA*; A. ROMANO; E. KARIMIAN AZARI; A. MANSOURI; M. MICONI DI BONAVENTURA; T. LUTZ; G. BEDSE; W. LANGHANS; S. GAETANI. *Sapienza Univ. of Rome, ETH Zurich, Univ. of Camerino, Vetsuisse Faculty, and Ctr. of Integrative Human Physiol.*
- 1:00 OO11 **833.05** Subdiaphragmatic vagotomy ameliorates the obesity caused by genetic deletion of the melanocortin 4 receptor in the mouse. G. DEZFULI; R. GILLIS; B. XU; K. DRETCHEN; J. VERBALIS; N. SAHIBZADA*. *Georgetown Univ. Med. Ctr.*
- 2:00 OO12 **833.06** Impact of Roux-en-Y gastric bypass surgery on enteroendocrine cell differentiation, glucose sensing and gut microbiota composition. M. COVASA*; B. LANGEIER; V. DOUARD; F. DEVIME; P. LEPAGE; A. HAJNAL; J. BEIGLER. *Western Univ. of Hlth. Sci., INRA, Univ. of Suceava, PennState.*
- 3:00 OO13 **833.07** SerpinA3N expression in the hypothalamus is regulated by nutritional status, age and leptin. L. M. WILLIAMS*; C. GRANT; A. C. MORRIS; E. BACHMAIR; C. KOCH; F. H. MCLEAN; A. MULLER; N. HOGGARD; B. DE ROOS; M. V. BOEKSCOTEN; F. C. MCGILLICUDDY; C. MAYER; H. M. ROCHE; M. MULLER; R. NOGUEIRAS; C. DIEGUEZ; A. TUPS. *RINH, Univ. of Aberdeen, Philipps Univ., Wageningen Univ., Univ. Col. Dublin, Univ. of Aberdeen, Univ. of Santiago de Compostela and CIBER Fisiopatología de la Obesidad y Nutrición (CIBERObn).*
- 4:00 OO14 **833.08** High fat diet-induced alterations in hippocampal gene expression in adult female mice. E. R. ENGLAND*; S. KRISHNA; Z. LIN; J. YANG; M. DELLA-FERA; R. MEAGHER; D. HARN; C. DE LA SERRE; C. BAILE; N. FILIPOV. *Univ. of Georgia.*
- 1:00 OO15 **833.09** The role of nitric oxide synthase in the estrogenic attenuation of cannabinoid induced changes of energy homeostasis. A. I. BORGQUIST*; S. DO; C. MEZA; E. WAGNER. *Western Univ. of Hlth. Sci., Western Univ. of Hlth. Sci.*
- 2:00 OO16 **833.10** ▲ Obesity and nociceptive pain in hypoestrogenic Wistar rats. O. A. JARAMILLO-MORALES; J. V. ESPINOSA-JUÁREZ; G. BRAVO; F. J. LOPEZ MUNOZ*. *CINVESTAV, CINVESTAV.*

- 3:00 OO17 **833.11** Neuropeptide Y controls the sympathetic response to food deprivation by regulating synaptic plasticity at the level of the preganglionic input. M. WANG*; M. D. WHIM. *LSU Hlth. Sci. Ctr.*
- 4:00 OO18 **833.12** Minimal role of GPR30 in mediating the anti-dipsogenic and anti-natriorexigenic effect of estradiol in the female rat. J. SANTOLLO*; D. DANIELS. *Univ. at Buffalo, SUNY.*
- 1:00 OO19 **833.13** Toxin-induced gustatory conditioning in rats: Examining the influence of a bitter taste on ingestion of a palatable sucrose solution containing a low level toxin (LiCl). L. SZOTA; A. N. GOOD; M. KAVALIERS; K. OSSENKOPP*. *Univ. Western Ontario, Univ. Western Ontario, Univ. Western Ontario.*
- 2:00 OO20 **833.14** The effects of brain inflammatory cytokine on peripheral lipid metabolism. T. LEE*; K. KINZIG. *Purdue Univ., Purdue Univ., Purdue Univ.*
- 3:00 OO21 **833.15** Adrenalectomy reduces the sensitivity to central effects of insulin on food intake. E. T. UCHOA*; R. C. RORATO; S. G. RUGINSK; J. ANTUNES-RODRIGUES; L. L. K. ELIAS. *Univ. of Sao Paulo (USP).*
- 4:00 OO22 **833.16** Estrogen regulates neuronal glucose sensing phenotype transition in the ventromedial nucleus of the hypothalamus. S. A. MOUSSATOV*; M. STAVARACHE; M. KAPLITT. *Weill Med. Col. of Cornell Univ., mas2066@med.cornell.edu.*
- 1:00 OO23 **833.17** Myeloid-specific SIRT1 deletion aggravates a high-fat diet-induced hepatic steatosis and induces systemic inflammation. G. ROH*; K. KIM; H. KIM; R. HEO; H. SHIN. *Gyeongsang Natl. Univ. Sch. of Med., Gyeongsang Natl. Univ. Sch. of Med.*
- 2:00 OO24 **833.18** Identification of FKBP51 as a novel susceptibility gene in metabolic dysfunction. G. BALSEVICH*; N. C. GASSEN; C. W. MEYER; T. REIN; F. HAUSCH; A. CHEN; M. H. TSCHÖP; M. V. SCHMIDT. *Max-Planck-Institut für Psychiatrie, Helmholtz Zentrum Munich, Max Planck Inst. of Psychiatry.*
- 4:00 OO28 **834.04** *In vivo* ghrelin release from the arcuate nucleus measured by push-pull perfusion. E. ALI*; C. CAYER; M. WELLMAN; A. ABIZAID; J. S. JAMES; Z. MERALI. *Carleton Univ., Inst. of Mental Hlth. Res., Univ. of Ottawa.*
- 1:00 OO29 **834.05** Spontaneous physical activity (SPA) following optogenetic manipulation of lateral hypothalamic orexin neurons is dependent on the circadian cycle. K. PARKER*; C. E. PEREZ-LEIGHTON; C. J. BILLINGTON; C. KOTZ. *Univ. Minnesota, Univ. Andres Bello.*
- 2:00 OO30 **834.06** Time-dependent plasticity of synaptic transmission in orexin neurons following palatable diet exposure. V. LINEHAN; M. HIRASAWA*. *Mem. Univ., Mem. Univ.*
- 3:00 OO31 **834.07** The physiological role of orexin neurons in feeding and metabolism revealed by pharmacogenetic activation and chronic ablation. A. INUTSUKA*; A. INUI; S. TABUCHI; T. TSUNEMATSU; M. LAZARUS; A. YAMANAKA. *Nagoya Univ., Tsukuba Univ.*
- 4:00 OO32 **834.08** Contribution of hindbrain catecholamine neurons to orexin-induced feeding. A. LI*; Q. WANG; H. DAVIS; S. RITTER. *Washington State Univ.*
- 1:00 PP1 **834.09** Interaction between orexin and opioid/non-opioid dynorphin in PVN in the regulation of food intake and physical activity. C. E. PEREZ-LEIGHTON*; M. SARMIENTO; L. VELAZQUEZ. *Univ. Andres Bello.*
- 2:00 PP2 **834.10** The increase of α -MSH immunoreactivity in the arcuate nucleus of rats after an acute exposition to a high fat diet. D. D. DIAZ-URBINA*; F. CORTES-SALAZAR; J. O. SUAREZ-ORTIZ; R. E. ESCARTÍN-PÉREZ; C. ESCOBAR-BRIONES; V. E. LÓPEZ-ALONSO; J. M. MANCILLA-DÍAZ. *Facultad De Estudios Superiores Iztacala-UNAM, Facultad de Medicina-UNAM.*
- 3:00 PP3 **834.11** Melanocortin-4 receptor in satiety and hunger: Influence from limbic regions. E. S. WEBBER*; M. KRASHES. *Natl. Inst. of Health/NIDDK/DEOB.*
- 4:00 PP4 **834.12** Neonatal estradiol treatment modulates hypothalamic expression of anorexigenic proopiomelanocortin (POMC) in undernourished female rats. P. COLLADO; B. CARRILLO; B. DÍEZ; F. HERNANDEZ-NUÑO; P. ARGENTE-ARIZÓN; F. DÍAZ; J. A. CHOWEN*; H. PINOS. *Universidad Nacional De Educación A Distancia (UNED), Hosp. Infantil Universitario Niño Jesús, Dept. of Endocrinol.*

POSTER

834. Neuropeptide Regulators

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

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 OO25 **834.01** Recombinant leptin up-regulates the secretion of luteinizing hormone and the expression E-cadherin and β -catenin in the ovary of dietary-induced obese infertile rats: mechanism of action. E. OTUKONYONG*; S. CAMPBELL*; T. NATHANIEL*. *East Tennessee State Univ., East Tennessee State Univ., Univ. of South Carolina.*
- 2:00 OO26 **834.02** Anorexic chicks have stress-dependent orexigenic responses to exogenous neuropeptide Y injection. J. YI*; P. B. SIEGEL; E. R. GILBERT; M. A. CLINE. *Virginia Tech.*
- 3:00 OO27 **834.03** Elucidating the orexigenic mechanism of prolactin-releasing peptide in chicks. G. WANG*; E. R. GILBERT; M. A. CLINE. *Virginia Tech.*
- 1:00 PP5 **834.13** Fasting regulates the expression of AgRP in the mouse sympathoadrenal system. R. GUPTA*; M. D. WHIM. *LSUHSC.*
- 2:00 PP6 **834.14** Prolonged sleep restriction associated with hypercaloric diets alters expression of leptin and NPY hypothalamic receptors. D. SUCHECKI*; D. P. VENANCIO. *Univ. Federal De Sao Paulo, Univ. Federal de Sao Paulo.*
- 3:00 PP7 **834.15** ▲ Elucidating the anorexigenic central mechanism of adrenocorticotrophic hormone in chicks (*Gallus gallus*). S. SHIPP*; J. YI; E. R. GILBERT; M. A. CLINE. *Virginia Tech.*
- 4:00 PP8 **834.16** Anatomical distribution of GLP-1 receptor expressing cells throughout the mouse central nervous system. S. C. CORK; F. REIMANN; F. M. GRIBBLE; S. TRAPP*. *Univ. Col. London, Cambridge Inst. for Med. Res.*

* Indicated a real or perceived conflict of interest, see page 153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 PP9 **834.17** Selective activation of hindbrain GLP-1 neurons reduces food intake but has little effect on glucose or metabolic homeostasis. M. M. SCOTT*; P. S. LAMBETH; D. M. WARTHEN; K. W. WILLIAMS; R. P. GAYKEMA. *Univ. of Virginia, Univ. of Texas Southwestern Med. Ctr. at Dallas, Univ. of Virginia.*
- 2:00 PP10 **834.18** Diet drugs of the future? Small-molecule neuromedin U receptor 2 agonists suppress food intake in animal models. C. R. BENZON; N. YE; S. B. JOHNSON; J. M. KASPER; D. L. MCCUE; J. ZHOU; J. D. HOMMEL*. *Univ. of Texas Med. Br., MD Anderson Cancer Ctr., Univ. of Texas Med. Br.*
- 3:00 PP11 **834.19** ▲ GnIH stimulates food intake when injected directly into the DMN and LH, but not the Arc, PVN, or DBB, in a dose-dependent manner. A. M. MEELKER*; A. L. PORTER; A. SCHENK; C. CAMPBELL; G. S. FRALEY. *Hope Col., Hope Col.*
- 4:00 PP12 **834.20** Drug-induced activation of a Gs-coupled designer GPCR in hypothalamic AgRP neurons stimulates chronic food intake and weight gain in mice. K. NAKAJIMA; Z. CUI*; M. KRASHES; B. LOWELL; J. WESS. *NIH-NIDDK, NIH-NIDDK, Beth Israel Deaconess Med. Ctr.*
- 1:00 PP13 **834.21** Acute intracerebroventricular administration of relaxin-3 differentially affects food intake and HPA axis activity in male and female rats. C. LENGLOS*; J. CALVEZ; G. GUÉVREMONT; A. MITRA; E. TIMOFEEVA. *CRIUCPQ - Univ. Laval.*
- 2:00 PP14 **834.22** Sex-specific effects of chronic intracerebroventricular administration of relaxin-3 on food intake, body weight and HPA axis activity. J. CALVEZ*; C. LENGLOS; G. GUEVREMONT; A. MITRA; E. TIMOFEEVA. *Laval Univ.*
- 3:00 PP15 **834.23** R-spondin 1 is up-regulated by leptin and increases β -catenin signaling in the hypothalamus. J. LI*; B. CHAI; Z. LI; W. ZHANG; M. W. MULHOLLAND. *Univ. Michigan.*
- 4:00 PP16 **834.24** Dnmt3a in Sim1 neurons is necessary for normal energy homeostasis. D. KOHNO*; S. LEE; M. J. HARPER; K. KIM; H. SONE; G. FAN; J. K. ELMQUIST. *Gunma Univ., Univ. of Texas Southwestern Med. Ctr., Wonju Col. of Medicine, Yonsei Univ., Univ. of Niigata Prefecture, Univ. of California Los Angeles.*
- 1:00 PP17 **834.25** Galanin-like peptide (GALP) facilitates thermogenesis via synthesis of prostaglandin e2 by astrocytes. F. TAKENOYA; K. HARUAKI; S. HIRAKO; N. WADA; J. WATANABE; T. RYUSHI; S. SHIODA*. *Hoshi Univ. Sch. Pharm Pharmaceut Sci., Showa Univ. Sch. Med., Kiryu Univ., Showa Univ. Sch. Med., Daito Bunka Univ.*
- 2:00 PP18 **834.26** Impact of environmental enrichment on individual food intake and expression of hypothalamic genes related to energy balance. E. NOBLE*; A. DIEULEVEULT; C. DUFFY; R. LEE; J. NIXON; T. BUTTERICK; C. BILLINGTON; C. KOTZ; C. WANG. *Univ. of Minnesota, Minnesota Obesity Ctr., DVA.*
- 3:00 PP19 **834.27** Satiety mechanisms during the fall transition to hibernation in the thirteen-lined ground squirrel. C. P. SCHWARTZ*; M. HAMPTON; M. T. ANDREWS. *Univ. of Minnesota Duluth, Univ. of Minnesota Duluth.*

POSTER

835. Functional Mechanisms of Attention II

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 PP20 **835.01** Attentional bias for food images among obese adults with and without binge eating disorder. K. R. VIACAVA*; M. DELUCHI; R. GONÇALVES; F. COSTA; R. FRIEDMAN; L. BIZARRO. *Federal Univ. of Rio Grande Do Sul - UFRGS, Federal Univ. of Rio Grande Do Sul - UFRGS, Federal Univ. of Rio Grande Do Sul - UFRGS.*
- 2:00 PP21 **835.02** Paying (for) attention: Effects of distraction, time-on-task, and monetary incentive in younger and older adults. Z. LIN*; C. LUSTIG. *Univ. of Michigan.*
- 3:00 PP22 **835.03** Effects of cueing on anticipatory distractor suppression. A. RAJAN*; X. WEN; Y. LIU; M. DING. *Univ. of Florida, Renmin Univ. of China, Univ. of California, Davis.*
- 4:00 PP23 **835.04** Increased difficulty in visual discrimination enhances attentional capture by visual but not auditory deviant stimuli when they appear in different sequence from task relevant stimuli. F. SUGIMOTO*; J. KATAYAMA. *Kyushu Univ., Kwansei Gakuin Univ.*
- 1:00 PP24 **835.05** The temporal transition of attentional allocation for deviant events reflected by distractor P3 distribution. F. MORIMOTO*; J. KATAYAMA. *Jin-Ai Univ., Kwansei Gakuin Univ.*
- 2:00 QQ1 **835.06** A comparison between the neural sources of target selection and distractor suppression. S. E. DONOHUE*; H. STRUMPF; M. A. SCHOENFELD; J. HOPF. *Otto-von-Guericke Univ. Magdeburg, Leibniz Inst. for Neurobio.*
- 3:00 QQ2 **835.07** ● Preference for high sensation images is correlated with self-reported risk taking but not with interference with pre-attentional processing. J. L. EVENDEN*; B. CONNOR. *Wiltonlogic, Colorado State Univ.*
- 4:00 QQ3 **835.08** Computational models of thalamocortical unsupervised attentional selection and competitive learning. R. N. CARDINAL*. *Univ. Cambridge.*
- 1:00 QQ4 **835.09** Myelination of the Dorsal Attention Network. G. H. PATEL*; E. C. JAMERSON; D. C. JAVITT; V. P. FERRERA. *Columbia Univ., New York State Psychiatric Inst.*
- 2:00 QQ5 **835.10** Pre and post-target spatial attention influences the rate of evidence accumulation during perceptual decision making. G. LOUGHNANE*; D. P. NEWMAN; M. A. BELLGROVE; E. C. LALOR; S. P. KELLY; R. G. O'CONNELL. *Trinity Col., Monash Univ., City Col. of New York.*
- 3:00 QQ6 **835.11** Intrinsic brain indices of threat bias. E. J. HO; E. T. MARCELLE; D. O'CONNOR; D. J. LURIE; R. H. TOBE; B. L. LEVENTHAL; F. CASTELLANOS*; N. A. FOX; M. P. MILHAM. *Child Mind Inst., Nathan S. Kline Inst. for Psychiatric Res., NYU Ctr. Neurodevelopmental Disorders, Univ. of Maryland.*
- 4:00 QQ7 **835.12** ● Impact of extreme stress on processing of cognitive and mental events. J. E. WILLIAMS*. *Eastern Illinois Univ.*

- 1:00 QQ8 **835.13** Attentional modulations of somatosensory alpha, beta and gamma oscillations dissociate between anticipation and stimulus processing. E. MARIS*; S. SZEBÉNYI; F. VAN EDE. *Donders Inst. For Brain, Cognition, and Behavior, Donders Inst. for Brain, Cognition and Behaviour.*
- 2:00 QQ9 **835.14** Eliciting a perceptual-motor execution without cognitive processing by modulating attentional focus. H. KATSUMATA*. *Daito-Bunka Univ.*
- 3:00 QQ10 **835.15** Rapid bilateral detection of a visual target precedes the lateralized focusing of attention. M. L. GAMBLE*; B. A. ZULKIEWICZ; M. G. WOLDORFF. *Duke Univ.*
- 4:00 QQ11 **835.16** ADHD symptom severity correlates with different brain regions in children with autism spectrum disorder (ASD), ADHD, and comorbid ASD/ADHD. D. SHOOK*; A. BROWN; D. CROCKETT; S. MOSTOFISKY; C. STODLEY. *American Univ., Kennedy Krieger Inst.*
- 1:00 QQ12 **835.17** Iron deficiency modulates behavioral, physiological, and cortical responses to variations in perceptual and mnemonic workload. L. R. TATE*; M. J. WENGER; L. E. MURRAY-KOLB; J. D. HAAS. *Univ. of Oklahoma, Univ. of Oklahoma, Cornell Univ., The Pennsylvania State Univ.*
- 2:00 QQ13 **835.18** Regionally-specific correlations between the integrity of the cortical cholinergic input system and vulnerability to attentional distraction in Parkinson's disease. K. KIM*; M. MÜLLER; N. BOHNEN; M. SARTER; C. LUSTIG. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*
- 3:00 QQ14 **835.19** EEG Beta activity during exposure to alcohol stimuli predicts drinking-related problems in women. D. S. LELAND*; H. M. BADZINSKI; R. M. FISCHER; C. M. GUTSMIEDL; P. M. JOHNSON; L. WEG FERNANDEZ; C. A. FILTZ; A. R. BRANDT; J. C. DOYLE. *Univ. of Wisconsin-Eau Claire.*
- 4:00 QQ15 **835.20** The context-dependent interplay between proactive and reactive mechanisms for distraction filtering in the human brain. F. MARINI*; E. DEMETER; K. C. ROBERTS; L. CHELAZZI; M. G. WOLDORFF. *Univ. of Verona, Duke Univ., Univ. of Verona.*
- 1:00 QQ16 **835.21** ● ▲ Analysis of color temperature to improve intelligent productivity-The effect for psychological states and brain activity-. N. ONISHI*; U. YAMAMOTO; M. MIKI; T. HIROYASU. *Doshisha Univ.*
- 2:00 QQ17 **835.22** Cognitive difficulties in urban population of cigarettes smokers. A. SHEVORYKIN*; D. ROBLES; J. MOSES; R. D. MELARA. *City Col. of New York.*
- 3:00 QQ18 **835.23** Reward- and conflict-induced interference: Guiding and biasing of visual attention. C. GIATTINO*; B. VAN DEN BERG; F. B. LEE; M. M. LORIST; M. G. WOLDORFF. *Duke Univ., BCN Neuroimaging Ctr.*

POSTER

836. Decision-Making and Stress

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 QQ19 **836.01** The impact of stress on financial decision-making. O. J. ROBINSON*; R. BOND; J. P. ROISER. *Univ. Col. London.*

- 2:00 QQ20 **836.02** Maternal buffering of human amygdala-prefrontal circuitry specifically during childhood. D. G. GEE*; L. GABARD-DURNAM; E. H. TELZER; K. L. HUMPHREYS; B. GOFF; M. SHAPIRO; J. FLANNERY; D. S. LUMIAN; D. S. FARERI; C. J. CALDERA; N. TOTTENHAM. *UCLA, Univ. of Illinois at Urbana-Champaign.*
- 3:00 QQ21 **836.03** Decision making under stress: Acute stress effects how we learn to trust others. O. FELDMANHALL*. *NYU.*
- 4:00 QQ22 **836.04** Stressful life events blunts medial prefrontal activity to rewards in mdd. P. KUMAR*; G. M. SLAVICH; L. H. BERGHORST; M. T. TREADWAY; N. H. BROOKS; S. J. DUTRA; D. N. GREVE; D. A. PIZZAGALLI. *McLean Hosp., Harvard Med. Sch., UCLA, Harvard Univ., Yale Univ., Massachusetts Gen. Hosp.*
- 1:00 QQ23 **836.05** Cognitive control predicts use of model-based reinforcement-learning. R. OTTO*; A. SKATOVA; S. MADLON-KAY; N. DAW. *New York Univ., Univ. of Nottingham, Duke Univ., New York Univ.*
- 2:00 QQ24 **836.06** Anxiety impairs performance and reduces dIPFC activity during high load spatial working memory. N. L. BALDERSTON*; K. O'CONNELL; K. VYTAL; S. TORRISI; M. ERNST; C. GRILLON. *Univ. Wisconsin-Milwaukee, Natl. Inst. of Mental Hlth.*
- 3:00 QQ25 **836.07** Effects of acute stress on risky monetary decision-making. P. SOKOL-HESSNER*; C. M. RAIO; S. P. GOTTESMAN; S. F. LACKOVIC; E. A. PHELPS. *New York Univ.*
- 4:00 QQ26 **836.08** Metacognitive biases in fearful face perception and their neuroanatomical correlates. A. KOIZUMI*; H. LAU. *Columbia Univ., US-Japan Brain Res. Cooperation Program, UCLA.*
- 1:00 QQ27 **836.09** Electrical microstimulation of the avian 'prefrontal cortex' in interhemispheric conflict. C. KOENEN*; N. KASTIES; M. C. STUTTGEN; O. GUNTURKUN. *Ruhr-University Bochum.*
- 2:00 QQ28 **836.10** Neural accounts of 'A-ha' experience in preference for ambiguous images. J. STEVANOVA*; H. ASHIDA; M. UESAKI; T. A. CARLSON; G. C. CUPCHIK; A. KITAOKA. *Kyoto Univ., Macquarie Univ., Univ. of Toronto Scarborough, Ritsumeikan Univ.*

POSTER

837. Disorders of Executive Function

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 QQ29 **837.01** Metacognitive monitoring in severe resistant obsessive-compulsive disorder treated by deep-brain stimulation. K. N'DIAYE*; W. I. A. HAYNES; V. M. FACQUE; L. MALLET. *Inst. Du Cerveau Et De La Moelle Epiniere, INSERM U1127, CNRS UMR7225, Univ. Pierre-et-Marie Curie (UPMC).*
- 2:00 QQ30 **837.02** Translational approach to study behavioral flexibility as an endophenotype of obsessive compulsive disorders. E. BURGUIERE*; N. BENZINA; S. L. MONDRAGON; N. OUARTI; L. MALLET. *Brain and spine Inst. - UPMC – INSERM U1127 – Brain and spine Institute, UPMC – INSERM U1127 – CNRS UMR7225, Univ. Pierre et Marie Curie, Brain and spine Inst. - UPMC – INSERM U1127 – CNRS UMR7225.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 QQ31 **837.03** Does lateral prefrontal cortex activation during flanker task predict self-regulation impairments in ASD? L. D. ANTEZANA; M. G. MOSNER; L. KENWORTHY; C. J. VAIDYA; W. D. GAILLARD; B. E. YERYS*. *Ctr. For Autism Res. - The Children's Hosp. of Philadelphia, Univ. of North Carolina - Chapel Hill, Children's Natl. Med. Ctr., Georgetown Univ.*
- 4:00 QQ32 **837.04** Deep brain stimulation of anterior thalamic nuclei modulates brain circuitries involved in emotion-attention interaction and response inhibition. L. SUN; M. POLVIVAARA; J. PERÄKYLÄ; J. ÖHMAN; J. PELTOLA; K. LEHTIMÄKI; K. M. HARTIKAINEN*. *Behavioral Neurol. Res. Unit, Tampere Univ. Hosp., Tampere Univ. Hosp.*
- 1:00 QQ33 **837.05** • Hypoactivation of a fronto-striatal loop in OCD associated with goal-directed planning. M. M. VAGHI*; A. HAMPSHIRE; N. A. FINEBERG; A. B. BRÜHL; B. J. SAHAKIAN; S. R. CHAMBERLAIN; T. W. ROBBINS. *Univ. of Cambridge, Behavioural and Clin. Neurosci. Institute, Univ. of Cambridge, Imperial Col. London, Highly Specialized Obsessive Compulsive and Related Disorders Service, Hertfordshire Partnership NHS Univ. Fndn. Trust, Queen Elizabeth II Hosp., Dept. of Psychiatry, Univ. of Cambridge, Dept. of Psychiatry, Psychotherapy and Psychosomatics, Univ. Hosp. of Psychiatry Zurich, Cambridge and Peterborough NHS Fndn. Trust (CPFT).*
- 2:00 QQ34 **837.06** Efficiency of cognitive control in concurrent suppression of nicotine and alcohol stimuli. J. DAFFRON*; G. DAVIS. *The Univ. of Cambridge, Univ. of Cambridge.*
- 3:00 QQ35 **837.07** Proactive control in alcohol dependence: An fMRI study of the stop signal task. C. R. LI*; S. HU; R. SINHA; J. IDE; S. ZHANG. *Yale Univ., Federal Univ. of Sao Paulo.*
- 4:00 QQ36 **837.08** Prefrontal activation over time during executive tasks in children with developmental coordination disorder: A NIRS study. J. K. LANGE; A. L. SMILEY-OYEN*. *Iowa State Univ.*
- 1:00 RR1 **837.09** Neural responses associated with Bayesian predictions of inhibitory response in occasional users predict future stimulant abuse. K. M. HARLE*; P. SHENOY; S. TAPERT; Y. ANGELA; M. PAULUS. *UCSD, UCSD.*
- 2:00 RR2 **837.10** Anticipatory response indexed by contingent negative variation in persons with schizotypy and anhedonia. S. PETROSSPOUR*; J. NESWALD; S. SARKISSIANS; J. MORALES; M. SERGI; J. ABARA. *California State University, Northridge, California State University, Northridge, California State University, Northridge.*
- 3:00 RR3 **837.11** Processing speed and executive functioning in preschool children with sickle cell anaemia. M. DOWNES*; F. KIRKHAM; P. TELFER; I. DUNDAS; B. KAYA; M. DE HAAN. *UCL Inst. of Child Hlth., UCL Inst. of Child Hlth., Royal London Hosp.*
- 4:00 RR4 **837.12** Resting state functional connectivity MRI predicts executive function in children with and without ADHD. M. NIK-AHD*; D. A. FAIR; J. T. NIGG. *Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*
- 1:00 RR5 **837.13** Racial/ethnic differences in attentional bias and cue reactivity among individuals with marijuana use disorders. L. M. RUGLASS*; A. SHEVORYKIN; R. MELARA. *The City Col. of New York.*
- 2:00 RR6 **837.14** • Prefrontal cortical function during treatment for alcohol dependence. J. D. HARRIS*; R. E. MEYER; S. C. BUNCE. *Pennsylvania State Univ.*
- 3:00 RR7 **837.15** A neurocognitive and white matter profile of behavioral flexibility in obsessive-compulsive disorder. A. M. APERGIS-SCHOUTE*; F. E. VAN DER FLIER; K. J. WHITAKER; M. M. VAGHI; M. KASER; A. SULE; N. A. FINEBERG; T. W. ROBBINS; B. J. SAHAKIAN. *Univ. of Cambridge, Behavioural and Clin. Neurosci. Inst., Univ. of Utrecht, Univ. of Cambridge, South Essex Partnership Trust, Queen Elizabeth II Hosp., Univ. of Hertfordshire.*
- 4:00 RR8 **837.16** Interference between working and semantic memory cognitive domains on voluntary balance control : Effect of age and stroke. S. SUBRAMANIAM*; T. BHATT. *2680 Dunrobin Circe., UIC.*
- 1:00 RR9 **837.17** Impulsivity as a marker of cognitive fatigue: An fMRI study. B. BLAIN*; S. BOURET; G. HOLLARD; M. PESSIGLIONE. *Brain & Spine Inst. (ICM), Ctr. of Econ. of Sorbonne.*
- 2:00 RR10 **837.18** The relationship between neuropsychological functioning, white matter integrity, and brain volume in traumatic brain injury. S. MCNALLY; K. C. LOPEZ; S. LEVY; D. PHAM; Y. CHOU; J. MCENTEE; J. BUTMAN; J. DSURNEY*; L. CHAN. *NIH, Ctr. For Neurosci. and Regenerative Medicine-.*
- 3:00 RR11 **837.19** A population-based feature extraction technique to identify functional biomarkers in the brain of alcoholic subjects. N. KARAMZADEH; M. KELLMAN; Y. ARDESHIRPOUR; F. CHOWDHRY; A. ANDERSON; E. WEGMAN; A. GANDJBAKHCHE*. *Natl. Inst. of Hlth., Natl. Inst. of Hlth., George Mason Univ., NIH.*
- 4:00 RR12 **837.20** The pursuit of DLPFC: Comparison of non-neuronavigated methods to target the left dorsolateral prefrontal cortex with transcranial Direct Current Stimulation (tDCS). O. SEIBT*. *The City Col. of The City Univ. New York.*

POSTER

838. Executive Function II

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 RR13 **838.01** There is no “best” brain parcellation for complex brain networks—one parcellation is not sufficient. M. BERTOLERO*; M. D'ESPOSITO. *Univ. of California, Berkeley.*
- 2:00 RR14 **838.02** Investigation of network connectivity with simultaneous TMS-fMRI. J. RIDDLE*; I. CAMERON; D. RAHNEV; M. D'ESPOSITO. *Univ. of California, Berkeley, Donders Inst.*
- 3:00 RR15 **838.03** Task-based reorganization of brain networks in healthy aging. C. L. GALLAN*; G. R. TURNER; A. ADNAN; M. D'ESPOSITO. *UC Berkeley, York Univ.*
- 4:00 RR16 **838.04** The role of parietal cortex in the representation of task-reward-associations. D. WISNIEWSKI*; C. REVERBERI; I. MOMENNEJAD; T. KAHNT; J. HAYNES. *Bernstein Ctr. For Computat. Neurosci., SFB 940 “Volition and Cognitive Control”, Berlin Ctr. for Advanced Neuroimaging, Psychology Dept., Princeton Neurosci. Inst., Lab. for Social and Neural Systems Res., Cluster of Excellence NeroCure, Berlin Sch. of Mind and Brain.*

- 1:00 RR17 **838.05** Medial prefrontal cortex signals prediction errors across multiple domains of pain and cognitive control. A. JAHN*; D. NEE; W. H. ALEXANDER; J. BROWN. *Indiana Univ., Univ. of California Berkeley, Ghent Univ.*
- 2:00 RR18 **838.06** ● Electrophysiological evidence for modulation of emotional appearance by spatial attention. M. V. MISHRA*; N. SRINIVASAN. *Ctr. of Behavioural and Cognitive Sciences.*
- 3:00 RR19 **838.07** Temporal changes in brain-behavior correlation during response inhibition. T. OSADA*; K. JIMURA; S. HIROSE; A. KUNIMATSU; K. OHTOMO; Y. KOIKE; S. KONISHI. *Dept Physiol, Juntendo Univ. Sch. Med., Prec Intel Lab, Tokyo Inst. of Tech., Dept Radiol, Univ. Tokyo Sch. Med.*
- 4:00 RR20 **838.08** Cerebro-cerebellar network associated with learning of response inhibition as revealed by functional connectivity analysis. S. HIROSE*; K. JIMURA; A. KUNIMATSU; O. ABE; K. OHTOMO; S. KONISHI. *Juntendo Univ. Sch. of Med., The Univ. of Tokyo Sch. of Med., Tokyo Inst. of Technol., The Univ. of Tokyo Sch. of Med.*
- 1:00 RR21 **838.09** Meta-analytic parcellation of the lateral prefrontal cortex delineates the inferior frontal junction area. P. S. MUHLE-KARBE*; J. DERRFUSS; M. BRASS; P. T. FOX; S. B. EICKHOFF. *Ghent Univ., Univ. of Nottingham, Univ. of Texas Hlth. Sci. Ctr., Heinrich Heine Univ., Inst. of Neurosci. and Med.*
- 2:00 RR22 **838.10** Role of orbitofrontal cortex in reward sensitivity: Evidence from human lesions. S. G. MANOHAR*; M. HUSAIN. *Dept. of Exptl. Psychology, Univ. of Oxford.*
- 3:00 RR23 **838.11** Investigating of the roles of dopamine and GABA for human action control by means of genetics and MR spectroscopy. A. STOCK*; C. QUETSCHER; J. T. EPPLER; U. DYDAK; C. BESTE. *TU Dresden, Ruhr-University Bochum, Ruhr-University Bochum, Purdue Univ., Indiana Univ.*
- 4:00 RR24 **838.12** Striatal GABA levels predict response inhibition performance and its cortical electrophysiological correlates. C. QUETSCHER*; C. BESTE; A. YILDIZ; S. DHARMADHIKARI; B. GLAUBITZ; T. SCHMIDT-WILCKE5; U. DYDAK. *Ruhr-Universität Bochum, Universitätsklinikum Carl Gustav Carus, Purdue Univ., Indiana Univ. Sch. of Med., Berufsgenossenschaftliche Kliniken Bergmannsheil.*
- 1:00 RR25 **838.13** Spaced cognitive training promotes transfer. P. SHAH*; Z. WANG; R. ZHOU. *Univ. of Michigan, Beijing Normal Univ.*
- 2:00 RR26 **838.14** ● Socioeconomic status as a moderator of improvements in executive function following cognitive training in adolescents. B. KATZ*; P. SHAH. *Univ. of Michigan.*
- 3:00 RR27 **838.15** Enhancing executive function and stress management skills in college students. A. BETTIS*; M. COIRO; S. PARK; J. ENGLAND; B. E. COMPAS. *Vanderbilt, Loyola Univ. Maryland.*
- 4:00 RR28 **838.16** Proactive control in cocaine dependence: An fMRI study of the stop signal task. J. S. IDE*; S. HU; S. ZHANG; C. R. LI. *Univ. Federal De Sao Paulo (UNIFESP), Yale Univ.*
- 1:00 RR29 **838.17** ● Performance on an online neuropsychological assessment is correlated with performance on standardized academic assessments in middle school students. C. SIMONE*; N. F. NG; F. FARZIN; J. L. HARDY; M. D. SCANLON. *Lumos Labs, Inc.*
- 2:00 RR30 **838.18** Cingulate cortex in mechanisms of motor control: Evidence from causal modeling of fMRI signals. A. ASEMI*; S. BRESSLER; V. DIWADKAR. *Florida Atlantic Univ., Wayne State Univ. Sch. of Med.*
- 3:00 RR31 **838.19** Higher affinity state allele variants in DRD4 and CHRNA4 lead to increased executive attention and related brain activations. Y. UEDA*; Y. KIKUNO; H. YAMAMOTO; J. SAIKI. *Kyoto Univ.*
- 4:00 RR32 **838.20** Motor slowing following unexpected events: Individual roles and functional connectivity of the pre-supplementary motor area and the right inferior frontal cortex. J. R. WESSEL*; V. G. BABOYAN; N. TANDON; A. R. ARON. *UC San Diego, Univ. of Texas Med. Sch. at Houston.*
- 1:00 RR33 **838.21** Brain eigen-frequency scanning technique and its applications. Q. MENG*; M. ISLAM; E. HONG; F. CHOA. *UMBC, UMB.*

POSTER

839. Human Cognition I

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 RR34 **839.01** Comparing regional activations between older and younger adults on an fMRI task-switching and memory updating paradigm. K. KAWA*; J. A. CARDOZA; A. M. STICKEL; M. B. SCHMIT; M. S. LOZANO; E. L. GLISKY; L. RYAN. *Univ. of Arizona, Univ. of Arizona.*
- 2:00 RR35 **839.02** Neurocognitive changes in late adulthood: A dynamic field theory approach. G. J. DEGIROLAMO*; A. R. SCHUTTE. *Univ. of Nebraska- Lincoln.*
- 3:00 RR36 **839.03** The Relationship between resting state functional connectivity of executive control network and cognitive decline in aging : A retrospective longitudinal study. B. H. LEE*; K. S. DO; J. CHA; J. KIM; J. LEE; G. H. KIM; J. CHIN; M. K. SUH; Y. NOH; S. W. SEO; D. L. NA. *Samsung Med. Ctr., Sungkyunkwan university, Hanyang Univ., Ewha Womans University, Mokdong Hosp., Gachon Univ. Gil Med. Ctr.*
- 4:00 RR37 **839.04** An event-related potential study of perceptual decision-making and aging. A. M. HAYES; S. P. KELLY; R. G. O'CONNELL*. *Trinity Col. Dublin, City Col. of the City Univ. of New York.*
- 1:00 RR38 **839.05** ▲ Does aging affect multi-sensory integration processes in the brain? E. A. YALCINBAS; M. A. JOHNSON; J. M. GROH; M. T. DIAZ*. *Duke Univ., Duke Univ., Pennsylvania State Univ.*
- 2:00 RR39 **839.06** Relation between behavioral measures and structural and functional connectivity of the cingulum bundle in normal aging. S. HIRSIGER*; V. KOPPELMANS; S. MÉRILLAT; F. LIEM; B. ERDENIZ; R. SIDLER; L. JÄNCKE. *Intl. Normal Aging and Plasticity Imaging Ctr., Univ. of Zurich, Univ. of Michigan, Univ. of Zurich, Univ. of Zurich, Univ. of Michigan, Univ. of Michigan.*
- 3:00 RR40 **839.07** Changes in resting-state functional connectivity of the human brain with age. S. HRYBOUSKI*; F. OLSEN; R. CARTER; P. SERES; N. MALYKHIN. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*
- 4:00 RR41 **839.08** fMRI correlates of successful encoding and retrieval in response to increasing difficulty during an episodic memory task. E. BAENA; L. RYAN*. *Univ. of Arizona, Univ. of Arizona.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 RR42 **839.09** Age-related differences in cortical activity during a tactile discrimination task following an acute bout of moderate intensity aerobic exercise. C. POPOVICH; R. STAINES*. *Univ. Waterloo.*
- 2:00 RR43 **839.10** Effects of aging on the neural correlates of source memory retrieval across the adult life span. S. CANSINO*; P. TREJO-MORALES; C. ESTRADA-MANILLA; E. H. PASAYE-ALCARAZ; E. AGUILAR-CASTAÑEDA; P. SALGADO-LUJAMBIO; A. L. SOSA-ORTIZ. *Nat Autonomous Univ. of Mexico, Nat Autonomous Univ. of Mexico, Nat Autonomous Univ. of Mexico, Natl. Inst. of Neurol. and Neurosurg., Natl. Inst. of Neurol. and Neurosurg., Natl. Inst. of Neurol. and Neurosurg.*
- 3:00 RR44 **839.11** Changes in white matter microstructure and perceptual speed are associated in very old age. M. LÖVDÉN*. *Aging Res. Ctr.*
- 4:00 RR45 **839.12** Cognitive and neural effects of a computerized cognitive training in older adults with mild cognitive impairment (mci): A feasibility study. F. LIN*; D. TADIN; K. HEFFNER; G. SCHIFITTO; M. MAPSTONE. *Univ. of Rochester Med. Ctr., Univ. of Rochester.*
- 1:00 RR46 **839.13** Impact of aging on fronto-striatal reward processing. M. VINK*; I. KLEEREKOOPER; R. S. KAHN. *UMC.*
- 2:00 RR47 **839.14** Glucose facilitation of cognition; is this dependent on age? H. MACPHERSON*; B. ROBERTSON; A. SCHOLEY. *Swinburne Univ., Lancaster Univ.*
- 3:00 RR48 **839.15** Theta and alpha neurofeedback protocol for age-related memory deficits. N. DIAS*; A. SILVA; J. REIS; J. CERQUEIRA; N. SOUSA. *ICVS/3Bs Associate Lab., ICVS/3Bs Univ. of Minho.*
- 4:00 RR49 **839.16** Effects of age and β -amyloid deposition on the neural systems for gist and visual detail memory encoding in cognitively normal older adults. H. OH*; J. ELMAN; S. BAKER; C. MADISON; J. W. VOGEL; S. CROWLEY; W. J. JAGUST. *Univ. of California-Berkeley, Lawrence Berkeley Natl. Lab.*
- 1:00 RR50 **839.17** Greater intensity and time of non-sedentary activity is associated with higher cognitive performance in sedentary older adults. J. R. NOCERA; D. G. HIRE; D. R. COOK; K. MCGREGOR*; J. KATULA; S. R. RAPP; K. M. SINK; J. JENNINGS; R. A. FIELDING; K. REID; A. KRAMER; J. VERGHESE; A. C. KING; T. M. MANINI; T. W. BUFORD; S. ANTON; N. NADKARNI; M. A. ESPELAND. *Emory Univ., Dept. of Veterans Affairs, Wake Forest Univ., Tufts Univ., Univ. of Illinois at Urbana-Champaign, Albert Einstein of Yeshiva Univ., Stanford Univ. Sch. of Med., Univ. of Florida, Univ. of Pittsburgh.*
- 2:00 SS1 **839.18** Age-related compensation during motor imagery: A multimodal study. H. BURIANOVA*; L. MARSTALLER; P. SOWMAN; A. RICH; M. WILLIAMS; B. JOHNSON; G. SAVAGE. *The Univ. of Queensland, The Univ. of Queensland, Macquarie Univ.*
- 3:00 SS2 **839.19** Stability of age-related deficits in the Mnemonic Similarity Task across task variations. S. M. STARK; R. STEVENSON; C. E. STARK*. *Univ. CA, Irvine, Univ. CA, Irvine.*
- 4:00 SS3 **839.20** Vitamin D level, inflammatory pattern and cognitive performance in adults and older adults. H. J. DARWISH*. *American Univ. of Beirut.*
- 1:00 SS4 **839.21** The effects of long-term cortisol exposure on virtual spatial navigation in middle-aged and older adults. U. SAELZLER*; S. RESNICK; S. MOFFAT. *Georgia Inst. of Technol., Natl. Inst. on Aging.*
- 2:00 SS5 **839.22** White matter integrity mediates age-related effects on cognitive abilities. Y. GAZES*; J. STEFFENER; Q. R. RAZLIGHI; D. J. BARULLI; Y. STERN. *Columbia Univ.*
- 3:00 SS6 **839.23** Age-related declines in a hippocampal-mediated visual associative memory task: Integration or segmentation? M. B. MEMEL*; L. RYAN. *Univ. of Arizona.*
- 4:00 SS7 **839.24** Sociodemographic and health-related factors associated with cognitive function in the oldest old in Panama. *G. B. BRITTON; A. E. VILLARREAL; S. A. GRAJALES; V. VASQUEZ; A. MONTALVAN. *Panama Aging Res. Initiative, INDICASAT AIP.*
- 1:00 SS8 **839.25** Reliability of diffusion tensor imaging measures within and across scanners. C. E. GONZALEZ*; V. K. VENKATRAMAN; B. A. LANDMAN; J. O. GOH; S. M. RESNICK. *Natl. Inst. on Aging, Natl. Inst. O, Vanderbilt Univ., Natl. Taiwan Univ.*

POSTER

840. Human Cognition II

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 SS9 **840.01** Don't lose your brain at work - work task mobility is associated with greater brain volume in frontal and striatal regions. B. GODDE*; J. OLTMANNS; U. M. STAUDINGER. *Jacobs Univ., Columbia Univ.*
- 2:00 SS10 **840.02** • Human cognition research on a large scale: The human cognition project. K. KERLAN*; F. FARZIN; D. A. STERNBERG; K. KATOVICH; N. NG; C. SIMONE; A. KALUSZKA; J. L. HARDY; M. SCANLON. *Lumos Labs, Inc.*
- 3:00 SS11 **840.03** The brain's compensatory response to cognitive fatigue. C. WANG*; A. TRONGNETRPUNYA; B. M. KLUGER; M. DING. *Univ. of Florida, Univ. of Colorado Denver.*
- 4:00 SS12 **840.04** Estrogen improves hippocampally-mediated cognition in women who report postmenopausal cognitive impairment. P. A. NEWHOUSE*; C. VALIQUETTE; K. ALBERT; R. ASTUR; E. EISENBERG; B. MCDONALD; M. NAYLOR; A. SAYKIN; J. DUMAS. *Vanderbilt Univ. Sch. of Med., Univ. of Connecticut, Vanderbilt Univ. Sch. of Med., Indiana Univ. Sch. of Med., Univ. of Vermont.*
- 1:00 SS13 **840.05** Estrogen improved working memory performance for postmenopausal women with no subjective cognitive complaints. J. A. DUMAS*; C. VALIQUETTE; K. ALBERT; B. MCDONALD; E. EISENBERG; M. NAYLOR; A. SAYKIN; P. NEWHOUSE. *Univ. of Vermont Col. of Med., Vanderbilt Univ., Indiana Univ., Vanderbilt Univ.*
- 2:00 SS14 **840.06** Estrogen treatment reduces brain functional connectivity in post-menopausal women. J. N. VEGA*; L. ZURKOVSKY; B. D. BOYD; J. A. DUMAS; N. D. WOODWARD; M. NAYLOR; E. EISENBERG; P. NEWHOUSE. *Vanderbilt Univ., Univ. of Vermont.*
- 3:00 SS15 **840.07** Making cognitive latent variables manifest: Distinct neural networks for fluid ability and processing speed. C. G. HABECK*; J. STEFFENER; D. BARULLI; Y. GAZES; D. SHAKED; Q. RAZLIGHI; Y. STERN. *Columbia Univ.*

- 4:00 SS16 **840.08** Brain correlates of indecisiveness and sensitivity to negative outcomes in Obsessive Compulsive Disorder: An fMRI study with a risk-based decision making task. P. MORGADO*; P. MARQUES; J. M. SOARES; N. SOUSA; J. J. CERQUEIRA. *Life and Hlth. Sci. Res. Inst. (ICVS), Univ. of Minho.*
- 1:00 SS17 **840.09** ● A continuous recognition task paradigm implemented on-line for measurement of memory function. J. W. ASHFORD*, JR. *Stanford / VA Aging Clin. Res. Ctr.*
- 2:00 SS18 **840.10** Hippocampal activity mediates the relationship between sleep and memory monitoring accuracy. S. M. SHERMAN*; J. D. MCNEELY; D. M. SCHNYER. *Univ. of Texas At Austin.*
- 3:00 SS19 **840.11** Neural correlates of selective visual processing during working memory in individuals with major depressive disorder. T. M. LE*; A. KUJAWA; D. KLEIN; W. DEAN; G. BAYLON; H. LEUNG. *Stony Brook Univ.*
- 4:00 SS20 **840.12** Anorexia nervosa and body dysmorphic disorder display differences in processing of emotional stimuli. K. LAWRENCE; T. MOODY; S. KHALSA; M. STROBER; S. BOOKHEIMER; J. D. FEUSNER*. *UCLA Semel Inst. For Neurosci. and Human Behavior.*
- 1:00 SS21 **840.13** ▲ A novel method for predicting mental health disorders based on the handwriting features while writing numbers. S. SAKURABA*; H. KAWAGUCHI. *Toyo Univ.*
- 2:00 SS22 **840.14** Resting-state fMRI demonstrates that illness severity in anorexia nervosa is associated a lack of differentiation between sensory and fronto-parietal neural networks. K. L. KERR*; S. E. MOSEMAN; S. J. GOTTS; J. A. AVERY; J. L. DOBSON; W. SIMMONS. *Univ. of Tulsa, Laureate Inst. for Brain Res., Laureate Psychiatric Clin. & Hosp., Natl. Inst. of Mental Health, Natl. Inst. of Hlth.*

POSTER

841. Mechanisms of Attention: Parietal and Prefrontal

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 SS23 **841.01** Inter-areal theta-gamma coupling across macaque prefrontal cortices increases with attention and predicts successful stimulus selection. B. VOLOH*; T. WOMELSDORF. *York Univ.*
- 2:00 SS24 **841.02** Neural interactions in areas 8a and 46 of the primate brain reflect task difficulty and the allocation of attention. T. BACKEN*; S. TREUE; J. C. MARTINEZ-TRUJILLO. *McGill Univ., German Primate Ctr., Bernstein Ctr. for Computat. Neurosci.*
- 3:00 SS25 **841.03** Reversible visual hemineglect induced by parietal deactivation in the awake behaving cat results in a reduction in theta and gamma oscillations in primary visual cortex. W. H. BARNES*; M. C. MUELLER; R. A. W. GALUSKE. *Max Planck For Hirnforschung, Technische Univ. Darmstadt, Max Planck Inst. for Brain Res.*
- 4:00 SS26 **841.04** Feature-based attention modulates spatial summation of responses to two stimuli inside MT neuron's receptive fields. J. C. MARTINEZ-TRUJILLO*; N. MALEK; S. TREUE. *McGill Univ., German Primate Ctr., Bernstein Ctr. for Computat. Neurosci.*

- 1:00 SS27 **841.05** Unit activity in rat posterior parietal cortex tracks Pearce-Hall attention-for-learning. F. SCHIFFINO*; V. ZHOU; J. TRAGESER; P. HOLLAND. *Johns Hopkins Univ.*
- 2:00 SS28 **841.06** Glutamatergic control of attentional signals in macaque frontal eye-field. C. BRANDT*; M. O. DASILVA; A. THIELE. *Newcastle Univ.*
- 3:00 SS29 **841.07** Instantaneous filtering of visual information by prefrontal cortex neural assemblies. S. TREMBLAY*; F. PIEPER; A. SACHS; J. MARTINEZ-TRUJILLO. *McGill Univ., Inst. for Neuro- & Pathophysiology, Univ. Med. Ctr. Hamburg-Eppendorf (UKE), Div. of Neurosurgery, Dept. of Surgery, The Ottawa Hosp. Res. Institute, Univ. of Ottawa, McGill Univ.*
- 4:00 SS30 **841.08** Comparison of spikes and local field potentials in decoding the focus of visual attention from multi-electrode array recordings in lateral prefrontal cortex. G. DOUCET*; S. TREMBLAY; R. GULLI; F. PIEPER; S. ADAM; J. MARTINEZ-TRUJILLO. *McGill Univ., Univ. Med. Ctr. Hamburg-Eppendorf, Univ. of Ottawa.*
- 1:00 SS31 **841.09** Burst firing synchronizes prefrontal and anterior cingulate cortex during attentional control. M. OEMISCH*; S. ARDID; S. EVERLING; T. VALIANTE; T. WOMELSDORF. *York Univ., York Univ., Western Univ., Univ. of Toronto, Toronto Western Res. Inst.*
- 2:00 SS32 **841.10** Predicting successful control of attention-dependent choices from neuronal feature tuning in primate prefrontal and anterior cingulate cortex. S. WESTENDORFF*; D. KAPING; S. EVERLING; T. WOMELSDORF. *York Univ., Karolinska Institutet, Brain and Mind Institute, Western Univ.*
- 3:00 SS33 **841.11** Neural tuning affects spike-rate correlations during a spatial working memory task. M. LEAVITT*; F. PIEPER; A. SACHS; J. C. MARTINEZ-TRUJILLO. *McGill Univ., Univ. of Hamburg-Eppendorf, Univ. of Ottawa.*
- 4:00 SS34 **841.12** Single-trial dorsolateral prefrontal cortex neural trajectories predict intended saccade direction. C. BOULAY*; F. PIEPER; M. LEAVITT; J. MARTINEZ-TRUJILLO; A. J. SACHS. *Ottawa Hosp. Res. Inst., Univ. of Ottawa, McGill Univ., Universitätsklinikum Hamburg-Eppendorf, Ottawa Hosp. Res. Inst., McGill Univ.*

POSTER

842. Executive Function: Learning and Memory I

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 SS35 **842.01** Neurons in the crow nidopallium caudolaterale retain visual information across varying working memory periods. K. HARTMANN*; L. VEIT; A. NIEDER. *Univ. of Tübingen.*
- 2:00 SS36 **842.02** Audio-visual working memory associations in neurons of the corvid nidopallium caudolaterale. F. MOLL*; A. NIEDER. *Inst. of Neurobiology, Univ. of Tübingen.*
- 3:00 SS37 **842.03** Neuronal activity in the corvid nidopallium caudo-laterale during association learning. L. VEIT*; G. PIDPRUZHNYKOVA; A. NIEDER. *Univ. of Tübingen, Swiss Federal Inst. of Technol. (EPFL).*
- 4:00 SS38 **842.04** The effects of acute nicotine on contextual safety learning. C. F. OLIVER*. *Temple Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 1:00 SS39 **842.05** Ketamine effects on conditioned suppression in rats. C. M. GROEBER TRAVIS*; D. E. ALTMAN; L. P. SIMMONS; S. DOBRE; R. F. GENOVESE. *Walter Reed Army Inst. of Res.*
- 2:00 SS40 **842.06** Effects of ketamine on behavioral changes induced by predator exposure in rats. R. F. GENOVESE*; S. DOBRE; C. M. GROEBER TRAVIS; C. C. JOHNSON. *Walter Reed Army Inst. Res.*
- 3:00 SS41 **842.07** Fructose consumption increased body fat and decreased physical activity but did not impair adult hippocampal neurogenesis in mice. A. M. MASNIK*; B. D. PANOZZO; C. P. KREBS; A. M. KOBEISSI; J. G. MUN; K. DU; J. S. RHODES. *Univ. of Illinois At Urbana-Champaign, Univ. of Illinois At Urbana-Champaign, Univ. of Illinois At Urbana-Champaign.*
- 4:00 SS42 **842.08** Water maze swim strategies of mice exposed to proton radiation and a pomegranate-enhanced diet. P. V. LORENZO*; M. DULCICH; R. HARTMAN. *Loma Linda Univ.*
- 1:00 SS43 **842.09** Analysis and mapping of water maze search strategies in cobalt-60 irradiated rats. C. RAY*; M. FINLAY; G. NELSON; R. HARTMAN. *Loma Linda Univ.*
- 2:00 SS44 **842.10** Role of 5-HT5A receptors in the consolidation of memory. K. CHÁVEZ*; A. MENESSES. *CINVESTAV-IPN.*
- 3:00 SS45 **842.11** ▲ Transient inactivation of the rodent prefrontal cortex impairs performance on a working memory dependent conditional discrimination task. D. LAYFIELD; K. R. URBAN*. *Univ. of Delaware.*
- 4:00 SS46 **842.12** Effects of co administration of lecithin and caffeine on spatial memory and protein synthesis in Wistar rats. B. V. OWOYELE*; M. A. TOLUHI. *Univ. of Ilorin.*
- 1:00 SS47 **842.13** ▲ Dorsal striatal indirect pathway regulates the response selection accuracy in auditory conditional discrimination. K. NISHIZAWA*; R. FUKABORI; K. OKADA; M. UCHIGASHIMA; M. WATANABE; A. SHIOTA; M. UEDA; Y. TSUTSUI; K. KOBAYASHI. *Dept Mol Genet, Fukushima Med. Univ., Dept Behav Sci, Grad Sch. Integr Arts & Sci, Hiroshima Univ., Dept of Anat & Embryology, Hokkaido Med. Univ., Inst. Immunol, Co, Ltd, Dept Hum Support Syst, Fukushima Univ.*
- 2:00 SS48 **842.14** ● Retrieval-induced forgetting in rats' spontaneous object recognition. K. YAMADA*; M. UENO; E. TAKANO; Y. ICHITANI. *Univ. Tsukuba.*
- 3:00 SS49 **842.15** Functional segregation of prefrontal and premotor cortices in a delayed response task: An rTMS study. S. NAKAMURA*; T. HOSOKAWA; T. IJIMA; K. TSUTSUI. *Div. Sys Neurosci, Grad Schl Life Sci, Tohoku Univ.*
- 4:00 SS50 **842.16** Monkeys use similar discriminative cues across two tests of metamemory. E. K. BROWN*; B. M. BASILE; V. L. TEMPLER; R. R. HAMPTON. *Emory Univ., NIMH, NIH.*
- 1:00 SS51 **842.17** Comparing prefrontal and medial temporal lobe in macaque monkeys during a temporal-order-memory task. Y. NAYA*; H. CHEN; C. YANG; W. SUZUKI. *Peking Univ., New York Univ.*
- 2:00 SS52 **842.18** Clozapine but not haloperidol prevents and reverses a sub-chronic PCP-induced cognitive deficit in the attentional set-shifting task in the rat. N. IDRIS*. *Omer Almurkhtar Univ.*
- 3:00 SS53 **842.19** Modulation of power and synchrony of local field potentials by working memory load in the macaque. S. KORNBLITH*; T. J. BUSCHMAN; E. K. MILLER. *MIT, Princeton Univ.*
- 4:00 SS54 **842.20** Involvement of dorsolateral and ventrolateral prefrontal cortex in behavioral adaptation to group reversal. T. HOSOKAWA*; S. NAKAMURA; Y. MATSUI; M. YAMADA; T. IJIMA; K. TSUTSUI. *Tohoku Univ.*
- 1:00 SS55 **842.21** ▲ Sustained activity in mPFC of head-fixed rats performing delayed response task. Y. TATEYAMA*; K. OYAMA; K. OMORI; T. IJIMA; K. TSUTSUI. *Grad. Sch. of Life Sci., Tohoku Univ.*
- 2:00 SS56 **842.22** Effect of acute stress on working memory in male rats sexually motivated. E. HERNANDEZ-ARTEAGA*; M. ALMANZA-SEPÚLVEDA; M. HERNÁNDEZ-GONZÁLEZ; M. GUEVARA; H. BONILLA-JAIME; M. OLVERA CORTÉS. *Inst. De Neurociencias, Univ. Autónoma Metropolitana, CIBIMI-IMSS.*

POSTER

843. Executive Function: Learning and Memory II

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 SS57 **843.01** Exercise improves cognitive function, reduces anxiety and increases BDNF in gonadectomized adult male rats. K. Y. SALAS-RAMIREZ*; M. QADRI; K. URIBE; C. STREET; N. TALUKDER; D. WOO; G. DEJESUS; S. PEREZ; C. J. NELSON. *CUNY Med. Sch., The Sophie Davis Sch. of Biomed. Education, CCNY, The City Col. of New York, Lehman College, CUNY, Mem. Sloan Kettering Cancer Ctr.*
- 2:00 SS58 **843.02** Effects of two hypercaloric diets on learning and memory processes in rats (*Rattus norvegicus*). R. T. PINI*; L. D. M. F. VALES; T. BRAGA COSTA; S. S. ALMEIDA. *Univ. of Sao Paulo, Univ. of Ribeirao Preto, Univ. of Sao Paulo.*
- 3:00 SS59 **843.03** Microelectrode recordings within prefrontal cortex and caudate nucleus during two working memory tasks. D. HUIE*; K. GHOSE; C. MARTINEZ-RUBIO; T. M. HERRINGTON; E. N. ESKANDAR. *Massachusetts Gen. Hosp.*
- 4:00 SS60 **843.04** Environmental enrichment during development impairs learning in a serial multiple choice task in adult female rats. M. E. MILLER*. *Kent State Univ.*
- 1:00 SS61 **843.05** Event-related potentials and oscillatory activity indexing visual working memory capacity limits in nonhuman primates. K. FUKUDA*; J. D. SCHALL; G. F. WOODMAN. *Vanderbilt Univ.*
- 2:00 SS62 **843.06** Navigation trajectories and eye-movement patterns in rhesus monkeys (*Macaca mulatta*) during learning of object-value associations in a virtual reality environment. R. A. GULLI*; G. DOUCET; S. WILLIAMS; J. C. MARTINEZ-TRUJILLO. *McGill Univ., McGill Univ., Douglas Mental Hlth. Univ. Institute, McGill Univ.*
- 3:00 SS63 **843.07** Inhibitory role of cholinergic interneurons in the dorsomedial striatum via muscarinic M4 receptors on reversal and extinction learning. K. OKADA*; K. NISHIZAWA; R. FUKABORI; N. KAI; A. SHIOTA; M. UEDA; Y. TSUTSUI; S. SAKATA; N. MATSUSHITA; K. KOBAYASHI. *Hiroshima Univ., Fukushima Med. Univ. Sch. of Med., Inst. of Immunology, Co., Ltd, Fukushima Univ., Ehime Univ. Hosp.*

- 4:00 SS64 **843.08** The role of the medial prefrontal cortex in resolving mnemonic interference: Evidence from an olfactory matching to sample task. G. J. PETERS*; D. M. SMITH. *Cornell Univ.*
- 1:00 SS65 **843.09** 5HT2A receptor blockade in the dorsomedial striatum attenuates a behavioral flexibility deficit in the BTBR mouse. D. A. AMODEO*; A. SYED; J. A. SWEENEY; M. E. RAGOZZINO. *Univ. Illinois, Chicago, Univ. of Illinois at Chicago, Univ. of Texas South Western.*
- 2:00 SS66 **843.10** Medial prefrontal cortex inactivation impairs flexible shifting amongst behavioral strategies and associated hippocampal oscillations. K. G. GUISE*; M. L. SHAPIRO. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med.*
- 3:00 SS67 **843.11** Dissociations between medial prefrontal cortical regions in conditioned inhibition. H. C. MEYER*; D. J. BUCCI. *Dartmouth Col.*
- 4:00 SS68 **843.12** Enriched environment enhances synaptic plasticity and neurohormones underlying improvement of motor and memory functions. Y. SHIN; M. LEE; J. YU; Y. CHO; S. CHO*. *Brain Korea 21 PLUS Project for Med. Science, Yonsei Univ. Col. of Medicine, Seoul, Korea, Yonsei Univ. Col. of Med., Grotton Sch., Res. Inst. of Rehabil. Med.*
- 1:00 TT1 **843.13** ▲ Greater cognitive flexibility in female rats relative to males in an automated set-shift task. N. F. BRYANT; B. M. COX; S. B. FLORESCO; C. M. REICHEL*. *Med. Univ. of South Carolina, Univ. of British Columbia.*
- 2:00 TT2 **843.14** Neuronal activity of monkey prefrontal cortex during foraging for multiple targets. M. KUSUNOKI*; K. WATANABE; M. KADOHISA; J. DUNCAN. *Univ. of Oxford, MRC, Japan Society for the Promotion of Sci.*
- 3:00 TT3 **843.15** Neural changes between puberty and adulthood related to working memory and response inhibition. X. ZHOU*; D. ZHU; K. SAMSON; C. J. LEES; A. J. BENNETT; E. SALINAS; T. R. STANFORD; C. CONSTANTINIDIS. *Wake Forest Sch. Med., Univ. of Wisconsin.*
- 4:00 TT4 **843.16** Sex differences in response latencies during an object reversal task in male and female marmosets. M. G. LACLAIR*; J. CHANG; A. LACREUSE. *Univ. of Massachusetts, Amherst.*
- 1:00 TT5 **843.17** Representation of habitual action sequences in the sensorimotor corticostriatal circuit. N. LEMAIRE*; A. GRAYBIEL. *MIT, MIT.*
- 2:00 TT6 **843.18** Supramodal processing in medial prefrontal cortex during audiovisual working memory. B. PLAKKE*; M. D. DILTZ; L. M. ROMANSKI. *Univ. of Rochester Sch. of Med.*
- 3:00 TT7 **843.19** ▲ Contributions of anterior cingulate gyrus and anterior insula to social learning of food preferences. E. DU*; J. GARIÉPY; D. L. XIE; J. ERB; M. L. PLATT. *Duke Univ., Duke Univ., Duke Univ., Duke Univ.*
- 4:00 TT8 **843.20** Behind the mask: Neurobiological indicants of emotional resilience and cognitive function in wild raccoons (*Procyon lotor*). K. G. LAMBERT*; M. BARDI; T. LANDIS; M. M. HYER; A. RZUCIDLO; S. GEHRT; C. ANCHOR; D. JARDIM MESSEDER; S. HERCULANO-HOUZEL. *Randolph Macon Col., Ohio State Univ., Forest Preserve District of Cook County, Univ. Federal do Rio de Janeiro.*

- 1:00 TT9 **843.21** Dopamine D1 and D2 receptors differentially modulate neuronal rule coding in primate prefrontal cortex. T. OTT*; S. N. JACOB; A. NIEDER. *Inst. of Neurobiology, Univ. of Tübingen, Charité Berlin.*
- 2:00 TT10 **843.22** Dynamical patterns of clustered gamma activity in the frontoparietal system. T. A. ROMANO*; S. L. BRESSLER; R. F. SALAZAR; N. M. DOTSON; C. M. GRAY. *Florida Atlantic Univ., Montana State Univ.*

POSTER

844. Executive Function: Network Activity

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 TT11 **844.01** ▲ Modulation of neural synchrony in prefrontal and parietal cortex of monkeys as a function of executive processing demand in a context processing task. J. A. WESTERBERG; R. K. BLACKMAN; S. SAKELLARIDI; M. V. CHAFEE*. *St. Olaf Col., Univ. Minnesota, Univ. Minnesota, Univ. Minnesota.*
- 2:00 TT12 **844.02** Encoding of information about actions and context in rat prefrontal cortex: Effects of thalamic inactivation. B. A. WORMWOOD*; M. J. FRANCOEUR; K. D. ONOS; R. L. A. MILLER; C. R. LEHET; E. K. BRASLEY; L. E. MANZO; B. M. GIBSON; R. G. MAIR. *Univ. of New Hampshire, Univ. of New Hampshire.*
- 3:00 TT13 **844.03** Encoding of information about action and context by medial thalamus in the rat: Comparisons to prefrontal cortex. R. L. MILLER*; K. D. ONOS; M. J. FRANCOEUR; B. A. WORMWOOD; E. B. SMEDLEY; C. J. THERIAULT; E. E. RYDER; B. M. GIBSON; R. G. MAIR. *Univ. of New Hampshire, Univ. of New Hampshire.*
- 4:00 TT14 **844.04** ▲ Complex encoding of information about actions and context in rat prefrontal cortex. M. J. FRANCOEUR*; K. D. ONOS; B. A. WORMWOOD; R. L. A. MILLER; C. R. ELLIS; D. C. CHASE; H. A. COLE; B. M. GIBSON; R. G. MAIR. *Univ. of New Hampshire.*
- 1:00 TT15 **844.05** Large-scale correlation dynamics reveal interplay between integration and segregation during visual working memory. N. M. DOTSON*; C. M. GRAY. *Montana State Univ.*
- 2:00 TT16 **844.06** ● Analysis of the spatio-spectral patterns underlying visual working memory and their architectonic underpinnings. S. J. HOFFMAN*; N. M. DOTSON; T. LYNN; C. M. GRAY. *Montana State Univ.*
- 3:00 TT17 **844.07** Neurophysiological mechanisms supporting flexible, context-specific, operant and pavlovian behavior. J. MUNUERA*; M. RIGOTTI; S. FUSI; D. C. SALZMAN. *Columbia Univ., IBM T. J. Watson Res. Ctr., Columbia Univ., NYPSI.*
- 4:00 TT18 **844.08** Medial frontal control of striatal neuronal ensembles during interval timing. E. B. EMMONS; K. L. PARKER; N. S. NARAYANAN*. *Carver Col. of Med. / Univ. of Iowa.*
- 1:00 TT19 **844.09** Gating neural activity by a disinhibitory mechanism in cortical circuit. G. R. YANG*; J. D. MURRAY; X. WANG. *New York Univ.*
- 2:00 TT20 **844.10** GABAergic control of Working Memory: A computational model of the prefrontal cortex. S. E. LEW*; K. Y. TSENG. *Univ. de Buenos Aires, The Chicago Med. Sch. at RFUMS.*

* Indicated a real or perceived conflict of interest, see page 153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 TT21 **844.11** Recovery of consciousness from isoflurane anesthesia is mediated by a structured network of discrete intermediate brain states. A. HUDSON*; D. P. CALDERON; D. W. PFAFF; A. PROEKT. *David Geffen Sch. of Medicine, UCLA, The Rockefeller Univ., Weill Med. Col. of Cornell Univ.*
- 4:00 TT22 **844.12** Task-dependent modulation of regular-firing and fast-spiking neurons in medial prefrontal cortex during sensory discrimination. Z. ZHOU*; K. K. SELLERS; C. YU; F. FROHLICH. *Univ. of North Carolina - Chapel Hill.*
- 1:00 TT23 **844.13** DREADDing the mediodorsal thalamus and prefrontal inhibition: Potential partners in executive function. B. R. FERGUSON*; W. GAO. *Drexel Univ. Col. of Med.*
- 2:00 TT24 **844.14** Itch relief is a rewarding behavior. L. TAJEN*. *Ibms, Academia Sinica, Taiwan.*
- 3:00 TT25 **844.15** Unique oscillatory patterns in the rat prefrontal cortex after NMDA receptor blockade. B. KOCSIS*. *Harvard Med. Sch.*
- 4:00 TT26 **844.16** Integration of executive control signals across prefrontal cortical-striatal and hippocampal neural ensembles. I. OPRIS*; D. FETTERHOFF; C. A. SEXTON; L. M. SANTOS; J. L. LONG; J. V. NOTO; B. C. PARISH; O. D. JURCHESCU; M. ENACHESCU; G. GERHARDT; D. SONG; V. Z. MARMARELIS; R. E. HAMPSON; S. A. DEADWYLER; T. W. BERGER. *Wake Forest Sch. of Med., Wake Forest Univ., Univ. Politehnica, Univ. of Kentucky, USC.*
- 1:00 TT27 **844.17** A cognitive function of the default mode network in monkeys: Shifting of selective attention? N. S. CASPARI*; R. VANDENBERGHE; W. VANDUFFEL. *Lab. For Neuro- and Psychophysiology, Univ. Hosp. Leuven, Lab. for Cognitive Neurology, KU Leuven, Harvard Med. Sch., MGH Martinos Ctr.*
- 2:00 TT28 **844.18** ● Acute and chronic effects of the traditional herb Cistanche Tubulosa alone or in combination with Ginkgo Biloba or nerve growth factor on hippocampal networks grown on microelectrode array neurochips. D. SALTER*; M. A. MURRAY; D. FAST; A. RAJGOPAL; K. JUEGELT; O. H. U. SCHRÖDER; B. M. BADER; A. VOSS. *Nutriline Hlth. Inst., Nutriline Hlth. Inst., NeuroProof GmbH.*
- 3:00 TT29 **844.19** Neural correlates of strategy shifting in the mouse prefrontal cortex, striatum and hippocampus. S. GAULY; S. DUVARCI; T. SIGURDSSON*. *Goethe Univ. Frankfurt.*
- 4:00 TT30 **844.20** Dissociable salience networks in the macaque brain anchored in right anterior insula. J. ZHANG*; A. TOUROTOGLOU; E. BLISS-MOREAU; D. MANTINI; W. VANDUFFEL; B. C. DICKERSON; L. F. BARRETT. *Northeastern Univ., Martinos Ctr. for Biomed. Imaging, Massachusetts Gen. Hosp. and Harvard Med. Sch., Univ. of California at Davis and California Natl. Primate Res. Ctr., KU Leuven Med. Sch., Oxford Univ., ETH Zurich.*
- 1:00 TT31 **844.21** Cingulocerebellar interactions during interval timing. K. L. PARKER*; N. S. NARAYANAN. *Univ. of Iowa.*
- 2:00 TT32 **844.22** Differential effects of NMDA receptor blockade on precise spike timing in local prefrontal and parietal cortical circuits of monkeys performing an executive control task. D. A. CROWE*; R. K. BLACKMAN; S. SAKELLARIDI; M. V. CHAFEE. *Augsburg Col., Veterans Affairs Med. Ctr., Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*
- 3:00 TT33 **844.23** Prefrontal D1 stimulation rescues mesocortical dopamine deficits during interval timing. Y. KIM*; S. L. ALBERICO; N. S. NARAYANAN. *Univ. of Iowa, Univ. of Iowa.*
- 4:00 TT34 **844.24** WITHDRAWN.
- 1:00 TT35 **844.25** Neural correlate of visual working memory in the macaque monkey. C. LI; J. BARBER; M. PARE*. *Queen's Univ.*
- 2:00 TT36 **844.26** ● The neurophysiology of stress-related impairment of prefrontal cognitive function. D. M. DEVILBISS; C. W. BERRIDGE*. *Univ. Of Wisconsin.*
- 3:00 TT37 **844.27** A self-optimising network. A. M. BRUNO*; M. D. HUMPHRIES; W. N. FROST. *Rosalind Franklin Univ. of Med. and Sci., Univ. of Manchester, Rosalind Franklin Univ. of Med. and Sci.*
- 4:00 TT38 **844.28** A curvature-processing network in macaque visual cortex and its functional implication. X. YUE*; M. VERGAMINI; I. POURLADIAN; R. TOOTELL; L. UNGERLEIDER. *NIH, Massachusetts Gen. Hosp.*

POSTER

845. Neurogenesis and Plasticity

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 TT39 **845.01** Adult neurogenesis is essential for attention-shift from current behavior toward novel cues. C. S. WEEDEN*; H. A. CAMERON. *NIH.*
- 2:00 TT40 **845.02** Adult hippocampal neurogenesis affects motivation to obtain sucrose reward in an operant task. R. KARLSSON; H. A. CAMERON*. *NIH.*
- 3:00 TT41 **845.03** A role for adult neurogenesis in the adaptation to an unpredictable, threatening environment. L. R. GLOVER*; T. J. SCHOENFELD; R. KARLSSON; D. M. BANNERMAN; H. A. CAMERON. *NIH, NIMH, Univ. of Oxford.*
- 4:00 TT42 **845.04** V1 interneurons subpopulations expressing different transcription factor combinations are sequentially generated from the p1 domain. J. T. ANDERSON*; R. F. ANDRE; J. B. BIKOFF; T. M. JESSELL; F. J. ALVAREZ. *Emory Univ., Howard Hughes Med. Institute, Kavli Inst. for Brain Science, Columbia Univ.*
- 1:00 TT43 **845.05** Social dominance in the anemonefish *A. ocellaris*. R. DEANGELIS*; J. RHODES. *Beckman Inst.*
- 2:00 TT44 **845.06** Circuit tagging by CREB facilitates the formation of new fear memories. A. J. RASHID*; C. YAN; A. DECRISTOFARO; L. HSIANG; A. P. YIU; P. W. FRANKLAND; S. A. JOSSELYN. *The Hosp. For Sick Children.*
- 3:00 TT45 **845.07** Hippocampal neurogenesis varies seasonally in male Eastern Chipmunks. G. A. SCOTT*; R. DASENDRAN; H. LEHMANN; A. N. IWANIUK; D. M. SAUCIER. *Univ. of Ontario Inst. of Technol., Trent Univ., Univ. of Lethbridge.*
- 4:00 TT46 **845.08** Voluntary exercise rescues behavioral deficits induced by neonatal alcohol exposure and increases adult hippocampal neurogenesis in mice. G. F. HAMILTON*; P. J. BUCKO; C. P. KREBS; D. S. MILLER; J. S. RHODES. *Univ. of Illinois Urbana-Champaign.*

- 1:00 TT47 **845.09** Involvement of LCPUFA based diets on brain structure and function from genesis to senescence. A. J. KILIAAN*; C. I. F. JANSSEN; I. A. C. ARNOLDUSSEN; V. ZERBI. *Radboud Univ. Med. Ctr.*
- 2:00 TT48 **845.10** Searching for a fear memory engram in lateral amygdala. C. YAN*; A. P. YIU; V. MERCALDO; B. RICHARDS; A. J. RASHID; J. PRESSEY; M. M. TRAN; S. A. KUSHNER; M. A. WOODIN; P. W. FRANKLAND; S. A. JOSSELYN. *The Hosp. For Sick Children, Univ. of Toronto, Univ. of Toronto, Erasmus Med. Ctr., Univ. of Toronto.*
- 3:00 TT49 **845.11** New neurons are not necessary for exercise to abolish conditioned place preference for cocaine. M. L. MUSTROPH*; J. R. MERRITT; A. L. HOLLOWAY; D. S. MILLER; H. PINARDO; C. N. KILBY; J. S. RHODES. *Univ. of Illinois Urbana-Champaign, Univ. of Illinois Urbana-Champaign, Univ. of Illinois at Urbana-Champaign.*
- 4:00 TT50 **845.12** Competitive neurogenesis reduces the dimensionality of the pattern separation problem. A. J. DECOSTANZO*; T. FUKAI. *RIKEN.*
- 1:00 TT51 **845.13** Effect of a specific multi-nutrient diet on systolic blood pressure and cerebral hemodynamics in aging apoE4 and apoE-ko mice. M. WIESMANN*; V. ZERBI; D. JANSEN; L. MELLENDIJK; L. M. BROERSEN; A. HEERSCHAP; J. A. H. R. CLAASSEN; A. J. KILIAAN. *Radboudumc, Donders Inst. for Brain, Cognition and Behaviour, Nutricia Research, Nutricia Advanced Med. Nutr.*
- 2:00 TT52 **845.14** Cognitive flexibility, chronic stress, and suppressed hippocampal neurogenesis. E. K. LUI; E. MARANDI; N. PURI; M. SALIM; M. CHAHAL; J. QUADRILATERO; E. SATVAT*. *Univ. of Waterloo, Univ. of Waterloo.*
- 3:00 TT53 **845.15** Marine-plant-derived astaxanthin enhances adult hippocampal neurogenesis and spatial learning in mice. J. YOOK*; M. OKAMOTO; T. MATSUI; M. LEE; H. SOYA. *Univ. of Tsukuba, Fellow of the Japan Society for promotion of science.*
- 4:00 TT54 **845.16** MafB and Foxp2 expression divide mammalian V1 interneurons into subpopulations with non-overlapping neurogenesis, transcription factor expression, development, firing properties and circuit functions. A. F. RIVARD; J. T. ANDERSON; J. B. BIKOFF; T. M. JESSELL; F. J. ALVAREZ*. *Emory Univ., Howard Hughes Med. Institute, Kavli Inst. for Brain Science, Columbia Univ.*
- 1:00 TT55 **845.17** Neural network contribution of adult neurogenesis on pattern separation behavior. J. ZHUO*; M. DESAI; M. E. BUCKLIN; K. GURREA; N. T. M. ROBINSON; B. D. ALLEN; J. G. BERNSTEIN; M. P. ELAM; K. T. LE; H. ZENG; E. S. BOYDEN; A. JASANOFF; X. HAN. *Boston Univ., MIT, Allen Inst. for Brain Sci.*
- 2:00 TT56 **845.18** Role of Bcl11b in transcriptional control of adult hippocampal neurogenesis and function. R. SIMON*; L. BAUMANN; J. FISCHER; F. SEIGFRIED; J. ANDRATSCHKE; H. SCHWEGLER; S. BRITSCH. *Univ. of Ulm, Otto-von-Guerike-University.*
- 3:00 TT57 **845.19** Rice bran extract improves brain mitochondrial function in aging NMRI mice. S. HAGL*; D. BERRESSEM; N. GREBENSTEIN; J. FRANK; G. P. ECKERT. *Goethe-Universität Frankfurt, Univ. of Hohenheim.*
- 4:00 TT58 **845.20** Altered bone morphogenetic protein signaling mediates age-related changes in neurogenesis and cognition. E. A. MEYERS*; A. M. BOND; J. A. KESSLER. *Northwestern Univ.*
- 1:00 TT59 **845.21** ● Performance of young and aged C57BL/6J mice on cognitive task depends on the task. K. DU*; S. D. PEREZ; J. S. RHODES. *Univ. of Illinois.*
- 2:00 TT60 **845.22** Neurogenesis-mediated forgetting of hippocampal memories. A. GUSKJOLEN*; J. R. EPP; S. A. JOSSELYN; P. W. FRANKLAND*. *Sick Kids Hosp.*
- 3:00 TT61 **845.23** Interactions between interleukin-1 beta and short-term exercise on hippocampal neurogenesis: implications for cognitive function in the adult mouse. C. M. HUESTON*; S. M. RYAN; B. R. AMELS; J. F. CRYAN; Y. M. NOLAN. *Univ. Col. Cork, Univ. Col. Cork.*
- 4:00 TT62 **845.24** Omega-3 Polyunsaturated Fatty Acids improve mitochondrial dysfunction in brain aging - Impact of Bcl-2 and NPD-1. G. P. ECKERT*; S. AFSHORDEL; S. HAGL; D. WERNER; N. RÖHNER; D. KÖGEL; N. G. BAZAN. *Goethe-University, Goethe-University, Goethe-University Hosp., Louisiana State Univ.*
- 1:00 TT63 **845.25** A mixed PUFA diet normalizes hippocampal neurogenesis and reduces anxiety in serotonin transporter knockout rats. J. R. HOMBERG*; P. SCHIPPER; A. KILIAAN. *Donders Inst. For Brain, Cognition and Behaviour, Cognitive Neurosci., Donders Inst. For Brain, Cognition and Behaviour, Anatomy, Donders Inst. For Brain, Cognition and Behaviour.*
- 2:00 TT64 **845.26** Paclitaxel reduces hippocampal neurogenesis and vesicular zinc level. B. LEE*; J. KIM; B. CHOI; H. KIM; I. KIM; S. LEE; M. SOHN; S. SUH. *Dept. of Physiol. Hallym Univ., Dept. of Med. biology, Hallym Univ., Dept. of Nursing, Inha Univ.*
- 3:00 TT65 **845.27** Manipulating a cocaine-cue memory trace in mice. H. HSIANG*; J. EPP; M. VAN DEN OEVER; C. YAN; A. RASHID; Y. NIIBORI; N. INSEL; L. YE; K. DEISSEROTH; P. W. FRANKLAND; S. A. JOSSELYN. *Hosp. for Sick Children, Univ. of Toronto, Univ. of Toronto, Univ. of Toronto, VU univeristy, Stanford university.*
- 4:00 TT66 **845.28** Functional, anatomical and effective connectivity with ca3 inhibitory interneurons underlies integration of newborn dentate gyrus cells into the adult hippocampus. L. RESTIVO*; Y. NIIBORI; A. L. WHEELER; S. A. JOSSELYN; P. W. FRANKLAND. *Hosp. For Sick Children, Univ. of Toronto, Univ. of Toronto, Univ. of Toronto.*
- 1:00 TT67 **845.29** Effects of long-chain polyunsaturated fatty acids on cognition, vascular function and gray matter integrity in mildly obesogenic ApoE*3Leiden mice. I. ARNOLDUSSEN*; R. H. NOORDMAN; V. ZERBI; P. Y. WIELINGA; R. KLEEMANN; G. GROSS; E. A. F. VAN TOL; T. KOOISTRA; M. H. SCHOEMAKER; A. J. KILIAAN. *Radboud Univ. Med. Ctr., TNO Metabolic Hlth. Res., Mead Johnson Pediatric Nutr. Inst.*
- 2:00 TT68 **845.30** Neurogenesis-mediated forgetting of recent, but not remote, contextual fear memories. P. W. FRANKLAND*; A. GAO; A. GUSKJOLEN; S. JOSSELYN. *Hosp. Sick Children, Univ. of Toronto, Univ. of Toronto, Univ. of Toronto.*

POSTER

846. Learning and Memory: Pharmacology II

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 TT69 **846.01** Increased BDNF levels and improved spatial learning in mice after the treatment with Neurotrophin®. H. YANAMOTO*; Y. NAKAJO; J. C. TAKAHASHI. *Natl. Cerebral & Cardiovasc Res. Ctr., Osaka Univ. Grad. Sch. of Med., Rakuwakai Otowa Hosp.*
- 2:00 TT70 **846.02** Sex differences in working memory performance after repeated exposure to Δ^9 -tetrahydrocannabinol in adolescent rhesus macaques. M. WRIGHT*, JR; C. R. OLSON; D. A. LEWIS. *Univ. of Pittsburgh, Carnegie Mellon Univ.*
- 3:00 TT71 **846.03** Dose-dependent impairment of spatial memory performance in the morris water maze task following abuse patterns of prenatal toluene exposure. S. E. BOWEN*; S. P. CALLAN; J. H. HANNIGAN. *Wayne State Univ., Wayne State Univ.*
- 4:00 TT72 **846.04** Proteomics analysis of the dorsal rat hippocampal formation: Neuromodulatory effects of standardized Ginkgo biloba extract on fear memory. R. B. GAIARDO*; M. M. TELLES; S. M. CERUTTI. *Federal Univ. of Sao Paulo, Federal Univ. of Sao Paulo.*
- 1:00 TT73 **846.05** Time-dependent effects of exercise and exercise-mimetics. D. GUERRIERI*; H. VAN PRAAG. *Natl. Inst. On Aging, NIH.*
- 2:00 TT74 **846.06** Grape powder supplementation prevents cognitive, behavioral and biochemical impairments in rat model of posttraumatic stress disorder. N. SOLANKI*; I. ALKADHI; F. ATROOZ; G. PATKI; S. SALIM. *Univ. of Houston -college of Pharm.*
- 3:00 TT75 **846.07** Memantine attenuates reinstatement of heroin seeking induced by heroin or cues in an animal model of relapse. M. LAI; H. LIU*; W. ZHOU. *Lab. of Behavioral Neuroscience, Ningbo Addiction Res. and Treatment Center, Sch. of Medicine, Ningbo Univ., Ningbo Inst. of Microcirculation and Henbane, Ningbo Addiction Res. and T.*
- 4:00 TT76 **846.08** Swimming forced test alteration and scanner electron microscope in cerebellar cortex from 12-days-old pup mice treated with midazolam. M. MARQUEZ-OROZCO*; G. DE LA FUENTE-JUAREZ; S. A. SANTIAGO-LÓPEZ; E. PEREZ-MENDOZA; J. A. JOYA-VELEGAS; A. FORTANEL-FONSECA; L. A. MORONES-SÁNCHEZ; J. A. SEPULVEDA SANCHEZ; J. A. SEPULVEDA SANCHEZ; A. MARQUEZ.OROZCO. *Univ. of Mexico (UNAM), UAM-Iztapalapa, Univ. of Mexico (UNAM).*
- 1:00 TT77 **846.09** ▲ Repeated oral doses of aniracetam does not alter anxiety, locomotion, or learning and memory in adult C57BL/6J mice. A. PANDIAN; T. W. ELSTON; G. D. SMITH; A. J. HOLLEY; N. GAO; J. N. LUGO*, JR. *Baylor Univ., Baylor Univ.*
- 2:00 TT78 **846.10** Learning and memory improvement by the decoction of roots of *Clerodendrum capitatum*. E. NGO BUM*; D. ZOUHEIRA; J. S. K. NJAPDOUNKE; G. C. N. NKANTCHOUA; F. C. O. MOTO. *Univ. Ngaoundere, Cameroon, Univ. Ngaoundere, Cameroon, Univ. of Yaoundé I.*
- 3:00 TT79 **846.11** The role of basolateral amygdala serotonin in discrimination, retention, and reversal learning. J. G. OCHOA; A. IZQUIERDO*. *UCLA.*
- 4:00 TT80 **846.12** ▲ Task/context alternation and behavioral temporal separation as an animal model of executive functions. I. VOJTECHOVA; T. PETRASEK; A. PISTIKOVA; J. SVOBODA; K. VALES; A. STUCHLIK*. *Inst. of Physiology, Acad. of Sci. of the Czech Republic.*
- 1:00 TT81 **846.13** Impaired performance on touchscreen object-location paired associates learning by acute systemic MK-801 is reversed by L-govadine but not D-govadine or CDPPB. B. R. LINS; A. G. PHILLIPS; J. G. HOWLAND*. *Univ. of Saskatchewan, Univ. of British Columbia, Univ. Saskatchewan.*
- 2:00 TT82 **846.14** ▲ Withdrawal from chronic intermittent access to ethanol alters within-session patterns of responding, but does not impair reversal learning, in rats. M. H. RAY; N. BRIGHT; M. GALLO; N. MWEBAZA; B. RODGERS; K. RUGGLE; C. L. PICKENS*. *Kansas State Univ.*
- 3:00 TT83 **846.15** Swimming behavioral alteration in 21 days-old pups mice treated with midazolam. A. MARQUEZ-OROZCO*; G. DE LA FUENTE-JUAREZ; S. A. SANTIAGO-LÓPEZ; E. PEREZ-MENDOZA; L. A. MORONES-SANCHEZ; M. C. MARQUEZ-OROZCO. *Univ. of Mexico (UNAM).*
- 4:00 TT84 **846.16** An $\alpha 5$ GABA_A receptor negative allosteric modulator increases spatial selectivity of CA1 place cells and hippocampal-dependent spatial memory. T. M. STEWART*; M. H. RATNER; S. S. DOWNING; D. H. FARB. *Boston Univ. Sch. of Med.*
- 1:00 TT85 **846.17** Divergent effects of ketamine and memantine in the novel object recognition test in Wistar rats. E. KOROS; K. A. ALLERS*. *Boehringer Ingelheim Pharma GmbH & Co. KG.*
- 2:00 TT86 **846.18** ▲ H1-histamine receptors antagonist in the amygdala impair memory acquisition in mice reexposed to the elevated plus maze. K. R. SERAFIM*; C. E. M. FERNANDES; A. C. L. GIANLORENÇO; R. MATTIOLI. *Federal Univ. of Sao Carlos.*
- 3:00 TT87 **846.19** Multiple exposures to sevoflurane general anesthesia impact cognitive development in rhesus macaques. M. C. ALVARADO*; K. L. MURPHY; M. G. BAXTER. *Yerkes Natl. Primate Res. Center/Emory Univ., Univ. of Oxford, Mount Sinai Sch. of Med.*
- 4:00 TT88 **846.20** ● Mechanism of action of a novel series of drug-like N-methyl-D-aspartate receptor positive allosteric modulators and their effects in hippocampal CA1 neurons. R. E. PERSZYK*; G. P. K. REDDY; E. C. GARNIER-AMBLARD; S. A. SWANGER; G. FERNANDEZ-CUERVO; L. S. LIEBESKIND; S. F. TRAYNELIS. *Emory Univ., Emory Univ.*

POSTER

847. Learning and Memory: Aging II

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 TT89 **847.01** Aging is associated with reduced choice of risky options in Fischer 344 rats. B. SETLOW*; C. A. ORSINI; J. L. BIZON. *Univ. of Florida, Univ. of Florida, Univ. of Florida.*

- 2:00 TT90 **847.02** Interaction between age and perceptual difficulty in olfactory discrimination learning: Relationship with spatial learning impairment. J. L. BIZON*; W. M. YODER; M. LYMAN; O. MUNIZZA; S. N. BURKE; B. K. ORMEROD; B. SETLOW; D. W. SMITH. *Univ. of Florida Col. of Med., Univ. of Florida, Univ. of Florida Col. of Med.*
- 3:00 TT91 **847.03** Activation of basal forebrain GABAergic projection neurons alters mPFC-mediated working memory performance in young F344 rats. C. BANUELOS*; B. SETLOW; J. L. BIZON. *Univ. of Florida.*
- 4:00 TT92 **847.04** Effects of age on excitatory inputs to pyramidal cells and interneurons in rat medial prefrontal cortex. K. B. KELLY*; H. E. CARPENTER; J. A. MCQUAIL; J. L. BIZON; C. J. FRAZIER. *Univ. of Florida, Univ. of Florida.*
- 1:00 UU1 **847.05** A psychophysical technique for characterizing age-associated alterations in olfactory function. W. M. YODER*; L. GAYNOR; E. WINDHAM; B. SETLOW; J. L. BIZON; D. W. SMITH. *Univ. of Florida, Univ. of Florida, Univ. of Florida.*
- 2:00 UU2 **847.06** Prefrontal cortical NMDA receptors in age-related working memory impairment. J. A. MCQUAIL*; C. BANUELOS; B. S. BEAS; B. SETLOW; J. L. BIZON. *Univ. of Florida, Univ. of Florida.*
- 3:00 UU3 **847.07** Prefrontal cortical GABA(B) and NMDA receptor interactions in working memory. S. BEAS*; K. SIMPSON; C. BANUELOS; J. MCQUAIL; B. SETLOW; J. BIZON. *Univ. of Florida McKnight Brain Inst., Univ. of Florida, Col. of Med., Univ. of Florida, Col. of Med., Univ. of Florida, Col. of Med.*
- 4:00 UU4 **847.08** • The effect of PPAR alpha/gamma modulator DSP-8658 on reversing cognitive decline in aging. O. THIBAUT*; S. MAIMAITI; K. L. ANDERSON; L. D. BREWER; J. R. CALABRESE; D. E. KEMP. *Univ. Kentucky Med. Ctr., Case Western Reserve Univ.*
- 1:00 UU5 **847.09** Cognitive deficits of early aging are prevented by vitamin D3: Underlying mechanisms from the hippocampal transcriptome. N. M. PORTER*; C. S. LATIMER; K. C. CHEN; L. D. BREWER; S. D. KRANER; J. POPOVIC; E. M. BLALOCK; O. THIBAUT; P. W. LANDFIELD. *Univ. of Kentucky, Univ. of Washington, Univ. of Kentucky.*
- 2:00 UU6 **847.10** Intranasal adiponectin versus insulin on behavioral and electrophysiological biomarkers of aging and memory decline. S. MAIMAITI; L. D. BREWER*; K. L. ANDERSON; E. M. BLALOCK; N. M. PORTER; O. THIBAUT. *Univ. of Kentucky, University of Kentucky.*
- 3:00 UU7 **847.11** Age-related emergence of HCN channelopathies in hippocampal neurons is independent of intraneuronal amyloid and tau pathology in Alzheimer's disease transgenic mice. E. MOLINA CAMPOS*; S. PEREZ; Y. VOSKOBYNYK; E. J. MUFSON; D. A. NICHOLSON. *Rush Univ. Med. Ctr., Rush Univ. Med. Ctr.*
- 4:00 UU8 **847.12** Synaptic compensation among aged rats is associated with successful cognitive aging. N. J. CORBETT*; E. W. BUSS; T. F. MUSIAL; K. OH; A. DIAZ; M. D. ANTION; C. WEISS; J. F. DISTERHOFT; D. A. NICHOLSON. *Rush Univ. Med. Ctr., Northwestern Univ.*
- 1:00 UU9 **847.13** Potential sources of aberrant activity in CA3 region of the hippocampus in a rat model of cognitive aging. E. W. BUSS*; C. FITZGERALD; N. J. CORBETT; M. M. ANTION; J. F. DISTERHOFT; D. A. NICHOLSON. *Rush Univ. Med. Ctr., Rush University Med. Ctr., Northwestern Univ., Northwestern Univ.*

- 2:00 UU10 **847.14** Overexpression of Kv4.2 and Kv4.3 channels in CA3 pyramidal neurons may contribute to age-related cognitive impairments. N. YBARRA*; T. F. MUSIAL; D. SIMKIN; J. F. DISTERHOFT; D. A. NICHOLSON. *Rush Univ. Med. Ctr., Northwestern Univ.*
- 3:00 UU11 **847.15** Alzheimer's disease-linked synaptic alterations in mouse and human hippocampal CA1 pyramidal neurons. T. F. MUSIAL*; K. NEUMAN; E. MOLINA-CAMPOS; E. BUSS; K. OH; S. SCHEFF; E. MUFSON; D. A. NICHOLSON. *Rush Univ. Med. Ctr., Univ. of Kentucky.*
- 4:00 UU12 **847.16** Longitudinal evaluation of Tau-P301L transgenic mice reveals cognitive impairments in old age. B. A. KENT*; C. J. HEATH; C. H. KIM; R. AHRENS; P. E. FRASER; P. ST GEORGE-HYSLOP; T. J. BUSSEY; L. M. SAKSIDA. *Univ. of Cambridge, Univ. of Cambridge, Univ. of Toronto, Univ. of Cambridge.*
- 1:00 UU13 **847.17** • Genetic interaction of disease-relevant genes modulates cognitive components assayed using touchscreens in mice. J. NITHIANANTHARAJAH*; N. H. KOMIYAMA; L. M. SAKSIDA; T. J. BUSSEY; S. G. N. GRANT. *Florey Inst. of Neurosci. and Mental Hlth., Univ. of Edinburgh, Univ. of Cambridge.*
- 2:00 UU14 **847.18** Regionally selective decline in hippocampal somatostatin-immunoreactive neuron number in aged rhesus monkeys with memory impairment. A. M. SPIEGEL*; E. J. PEREZ; J. M. LONG; P. PARK; P. R. RAPP. *Natl. Inst. on Aging.*
- 3:00 UU15 **847.19** • Rejuvenating the dentate gyrus with stage-specific expansion of adult-born neurons to enhance memory precision in adulthood and aging. K. MCAVOY; K. N. SCOBIE; S. BERGER; N. GUO; H. VEGA-RAMIREZ; S. MIAKE-LYE; M. WHALEN; M. NELSON; M. BERGAMI; B. BERNINGER; D. BARSTCH; R. HEN; A. SAHAY*. *Ctr. For Regenerative Med., Mount Sinai, Zentralinstitut für Seelische Gesundheit, MGH, Echelon Biosci., Cologne Excellence Cluster on Cell. Stress Responses in Aging-Associated Dis. (CECAD) and Univ. Hosp. of Cologne, Johannes Gutenberg Univ., Columbia Univ.*

POSTER

848. Cortical and Hippocampal Circuits: Spatial Navigation III

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 UU16 **848.01** Postsynaptic HCN channel deletion viaTRIP8b knockout causes expansion of grid scale and reduces malleability of grid cells. R. G. MUNN*; M. CAMPBELL; C. S. MALLORY; D. CHETKOVICH; L. M. GIOCOMO. *Stanford Univ., Northwestern Univ.*
- 2:00 UU17 **848.02** Voltage-gated Na current kinetics vary systematically along the dorsal-ventral axis of the MEC. J. S. BANT*; L. M. GIOCOMO. *Stanford Univ.*
- 3:00 UU18 **848.03** Error accumulation and landmark-based error correction in grid cells. K. HARDCASTLE*; S. GANGULI; L. M. GIOCOMO. *Stanford Univ., Stanford Univ.*
- 4:00 UU19 **848.04** Increased grid spacing and impaired spatial navigation following down-regulation of entorhinal HCN1. C. S. MALLORY*; J. DICKINSON; L. M. GIOCOMO. *Stanford Univ., Stanford Univ.*
- 1:00 UU20 **848.05** Head direction cells recorded in the anterior dorsal thalamus of preweanling rats. J. P. BASSETT*; T. J. WILLS; F. CACUCCI. *Univ. Col. London.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 UU21 **848.06** The scale of grid cell firing patterns is modulated by spatial uncertainty. D. MANSON*; F. CARPENTER; J. O'KEEFE; N. BURGESS; C. BARRY. *UCL*.
- 3:00 UU22 **848.07** Updating of head direction cells in a three-dimensional environment. J. J. WILSON*; H. J. SPIERS; K. JEFFERY. *Univ. Col. London*.
- 4:00 UU23 **848.08** Grid cell representations in connected, perceptually identical compartments. F. CARPENTER*; D. MANSON; K. J. JEFFERY; N. BURGESS; C. BARRY. *Univ. Col. London, Univ. Col. London, Univ. Col. London, Univ. Col. London*.
- 1:00 UU24 **848.09** How to use grid cells for high-precision large-scale vector navigation. C. BARRY*; D. BUSH; N. BURGESS. *UCL*.
- 2:00 UU25 **848.10** Medial entorhinal cortex architecture across evolution and development. S. RAY*; R. NAUMANN; M. BRECHT. *Bernstein Ctr. For Computat. Neurosci., Humboldt Univ.*
- 3:00 UU26 **848.11** ▲ Otolith dysfunction impairs dead reckoning in mice. S. N. BROCKMAN*; E. A. GOEBEL; J. R. KOPPEN; P. A. BLANKENSHIP; D. G. WALLACE; R. M. YODER. *Indiana U Purdue U Fort Wayne, Northern Illinois Univ.*
- 4:00 UU27 **848.12** The place-specific activity of hippocampal place cells does not require signals from the otolith organs. R. M. YODER*; S. A. RUTAN; J. J. SIEGEL. *Indiana - Purdue U Fort Wayne, Univ. of Texas at Austin*.
- 1:00 UU28 **848.13** Population coherence along the CA3 transverse axis. H. LEE*; S. DESHMUKH; J. KNIERIM. *Johns Hopkins Univ.*
- 2:00 UU29 **848.14** A case of disrupted grids by reference frame rotational dissociation. F. SAVELLI*; J. D. LUCK; J. J. KNIERIM. *Johns Hopkins Univ.*
- 3:00 UU30 **848.15** Potentiation of place fields along the CA1 transverse axis by investigatory head-scanning behavior. C. WANG*; G. RAO; J. D. MONACO; S. S. DESHMUKH; J. J. KNIERIM. *Johns Hopkins Univ.*
- 4:00 UU31 **848.16** A closed-loop virtual reality apparatus for investigating place and grid cell formation. R. P. JAYAKUMAR*; M. S. MADHAV; H. T. BLAIR; J. J. KNIERIM; N. J. COWAN. *Johns Hopkins Univ., Johns Hopkins Univ., UCLA, Johns Hopkins Univ.*
- 1:00 UU32 **848.17** Reactivation of rate remapping in CA3. C. SCHWINDEL*; K. ALI; M. TATSUNO; B. MCNAUGHTON. *Univ. of Lethbridge*.
- 2:00 UU33 **848.18** Automated whole brain cortical connectivity maps reveal anatomically distinct areas in rat posterior parietal cortex. A. A. WILBER*; B. J. CLARK; A. J. DEMECHA; L. MESINA; J. M. VOS; B. L. MCNAUGHTON. *The Univ. of Lethbridge, Univ. of California, AAW and BJC contributed equally to this work.*
- 3:00 UU34 **848.19** Methodology for automated unrolled cortical connectivity maps of the rodent brain. A. J. DEMECHA*; L. MESINA; B. J. CLARK; A. A. WILBER; B. L. MCNAUGHTON. *Canadian Ctr. For Behavioural Neurosci.*
- 4:00 UU35 **848.20** Impact of objects on dentate gyrus firing activity. D. JUNG*; T. GEILLER; D. KIM; S. ROYER. *Korea Advanced Inst. of Sci. and Technol., Korea Inst. of Sci. and Technol., Korea Advanced Inst. of Sci. and Technol.*
- 1:00 UU36 **848.21** Task-related signals in mouse primary visual cortex during virtual path integration. S. KANDLER*; D. MAO; B. MCNAUGHTON; V. BONIN. *Neuro-Electronics Res. Flanders, imec, Univ. of Lethbridge, Vlaams Inst. voor Biotechnologie, Katholieke Univ. Leuven*.
- 2:00 UU37 **848.22** Place recognition and heading retrieval are dissociable in mice (and possibly men). J. B. JULIAN*; A. KEINATH; I. MUZZIO; R. A. EPSTEIN. *Univ. of Pennsylvania*.
- 3:00 UU38 **848.23** Contributions of posterior parietal, medial prefrontal and anterior cingulate cortices to navigation in dynamic environment in rats. J. SVOBODA*; M. VODICKA; K. BLAHNA; P. TELENSKY; T. PETRASEK; I. VOJTECHOVA; K. VALES; S. KUBIK; A. STUCHLIK. *Inst. of Physiology, AS CR*.
- 4:00 UU39 **848.24** Preserved grid cell spatial firing pattern despite impaired place cell spatial selectivity in Connexin-36 KO mice. O. TOADER*; K. ALLEN; H. MONYER. *Med. Fac. of Heidelberg Univ. and DKFZ*.
- 1:00 UU40 **848.25** The dynamics of global remapping in a network model of hippocampal circuit. S. ROMANI*; S. MARK; M. TSODYKS. *Columbia Univ., Weizmann Inst. of Sci.*
- 2:00 UU41 **848.26** Using 2D virtual reality in rats to study neural representation of spatial reference frames. D. ARONOV*; D. W. TANK. *Princeton Univ.*
- 3:00 UU42 **848.27** Unraveling the neural circuitry of sequence-based navigation using a combined Fos imaging and computational approach. B. M. BABAYAN*; A. WATILLIAUX; C. TOBIN; B. GIRARD; L. RONDIREIG. *Inst. de Biologie Paris Seine, Inst. des Systèmes Intelligents et de Robotique UMR CNRS 7222*.
- 4:00 UU43 **848.28** Encoding of distance by recurrent hippocampal cell sequences in the absence of external landmarks. V. VILLETTE*; A. MALVACHE; T. TRESSARD; R. COSSART. *INSERM*.
- 1:00 UU44 **848.29** Grid cell symmetry is shaped by the geometry of the environment. J. KRUPIC*; M. BAUA; S. BURTON; C. BARRY; J. O'KEEFE. *Univ. Col. London, Sainsbury Wellcome Ctr.*
- 2:00 UU45 **848.30** Synaptic mechanisms of sparse activity in hippocampal granule cells during mouse navigation. C. SCHMIDT-HIEBER*; H. WEI; M. HAUSER. *Univ. Col. London*.

POSTER

849. Social Behavior: Neural Mechanisms

Theme F: Cognition and Behavior

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 UU46 **849.01** Foraging effort and its social facilitation in the domestic chick: Double dissociation of medial striatum and substantia nigra. Y. OGURA*; Q. XIN; T. MATSUSHIMA. *Hokkaido Univ., Japan Society for the Promotion of Sci., Hokkaido Univ., Hokkaido Univ.*
- 2:00 UU47 **849.02** Analysis of neural/molecular mechanisms of mate-guarding behavior in small fish, medaka. S. YOKOI*; T. OKUYAMA; Y. KAMEI; Y. TANIGUCHI; S. ANSAI; M. KINOSHITA; T. KUBO; H. TAKEUCHI. *Univ. of Tokyo, Natl. Inst. for Basic Biol., Dept. of Preventive Med. and Publ. Health, Sch. of Medicine, Keio Univ., Div. of Applied Biosciences, Grad. Sch. of Agriculture, Kyoto Univ.*

- 3:00 UU48 **849.03** Optogenetic activation of accessory olfactory bulb mitral cells differentially modulates the attraction of male mice to female and male urinary odors. T. KUNKHYEN*; D. A. DOCTOR; W. J. KORZAN; E. A. MCCARTHY; M. J. BAUM; J. A. CHERRY. *Boston Univ., Boston Univ.*
- 4:00 UU49 **849.04** DREADD-induced silencing of the medial olfactory tubercle disrupts opposite-sex odor preference in estrus female mice. B. DIBENEDICTIS*; A. O. OLUGBEMI; M. J. BAUM; J. A. CHERRY. *Boston Univ., Boston Univ.*
- 1:00 UU50 **849.05** Effect of stroke on depressive behavior and sociability outcome in mice. R. VERMA*; B. D. FRIEDLER; N. M. HARRIS; J. CRAPSER; L. D. MCCULLOUGH. *Univ. of Connecticut Hlth.*
- 2:00 UU51 **849.06** • Multi-unit activity in the medial prefrontal cortex during social interaction in rats. C. MINAMI; T. SHIMIZU; S. MOMMA; T. MIKAMI; A. MITANI*. *Human Hlth. Sci., Biotex Res. Lab.*
- 3:00 UU52 **849.07** Altering the development and expression of play behaviour in rats. S. M. HIMMLER*; J. M. LEWIS; S. M. PELLIS. *Univ. of Lethbridge.*
- 4:00 UU53 **849.08** Neuroanatomical correlates of dominant and submissive behaviour in mice. J. SCHOLZ*; E. A. OPALA; J. P. LERCH. *Mouse Imaging Ctr. (mice), Hosp. For Sick Children, Univ. of Toronto, Mouse Imaging Ctr.*
- 1:00 UU54 **849.09** Neural encoding dynamics in the amygdala during observational fear learning. S. A. ALLSOP*; A. C. FELIX-ORTIZ; R. THOMAS; E. H. NIEH; K. M. TYE. *M.I.T., Harvard Med. Sch.*
- 2:00 UU55 **849.10** Effects of non-social stressors on the modulation of social behavior by photostimulation of dopamine neurons. R. WICHMANN*; J. P. H. VERHAREN; S. SRIDHARMA; C. P. WILDES; K. M. TYE. *Picower Inst. for Learning and Memory, MIT, VU Univ. of Amsterdam.*
- 3:00 UU56 **849.11** Social relevance drives viewing behavior independent of low-level salience in rhesus macaques. J. A. SOLYST*; E. A. BUFFALO. *Univ. of Washington, Emory Univ., Univ. of Washington, Univ. of Washington, Ctr. for Translational Social Neurosci.*
- 4:00 UU57 **849.12** Effects of the absence of 50-kHz ultrasonic vocalizations on the playful interactions among unfamiliar juvenile and adult rats. S. M. PELLIS*; T. M. KISKO; D. R. EUSTON. *Univ. Lethbridge.*
- 1:00 UU58 **849.13** Saccadic eye-movements induce an oscillatory phase-reset in the amygdala of monkeys freely viewing videos of macaque social behaviors. C. P. MOSHER*; P. E. ZIMMERMAN; C. TANG; K. M. GOTHARD. *The Univ. of Arizona, The Univ. of Arizona.*
- 2:00 UU59 **849.14** Prosocial behavior in rats depends on the delivery of food to another rat displaying food seeking behavior. C. MARQUEZ*; S. RENNIE; D. COSTA; M. MOITA. *Champalimaud Ctr. For the Unknown.*
- 3:00 UU60 **849.15** Nucleus accumbens' modulation of periaqueductal gray inputs mediate isolation-induced vocalizations in the infant rat. H. MOORE*; M. O. CHOCHAN; J. MULLER; H. N. SHAIR. *New York State Psychiatric Inst., Columbia Univ., New York State Psychiatric Inst.*
- 4:00 UU61 **849.16** Impact of ventromedial prefrontal cortex lesions on macaque emotional face processing. L. E. MURPHY*; T. FENG; K. GOTHARD; J. BACHEVALIER. *Emory Univ., Univ. of Arizona.*

- 1:00 UU62 **849.17** Assessing emotional prosody in mouse socio-sexual induced ultrasonic vocalizations. K. SCHENK*; H. Y. LEE; S. GRISSOM; G. SOUTHWICK; M. GIBSON; L. Y. JAN; Y. N. JAN; Y. J. KWON. *Randolph Col., Univ. of California, San Francisco, Howard Hughes Med. Inst.*
- 2:00 UU63 **849.18** Behavioural correlates of socio-emotional states in macaques. S. BALLESTA*; M. POZZOBON; G. REYMOND; J. DUHAMEL. *Ctr. of Cognitive Neurosciences, CNRS (UMR5229).*

POSTER

850. Imaging Advances: *In Vivo*, Animals

Theme G: Novel Methods and Technology Development

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 UU64 **850.01** Evaluation of intramuscular interstitial fluid flow using fluorescent microspheres. L. Q. EVERTZ*; S. M. GREISING; D. A. MORROW; G. C. SIECK; K. R. KAUFMAN. *Mayo Clin.*
- 2:00 UU65 **850.02** ▲ Deleting G protein of rabies virus vector enhances transgene expression level via decreased cell toxicity and increased RNA polymerase expression. S. SATO*; S. OHARA; K. TSUTSUI; T. IJIMA. *Tohoku Univ.*
- 3:00 UU66 **850.03** A set of herpes simplex virus type 1 recombinants for use in neural circuit tracing. J. N. BROOKS*; E. A. ENGEL; L. W. ENQUIST. *IDA - Sci. and Technol. Policy Inst., Princeton Univ.*
- 4:00 UU67 **850.04** • Small numbers of neocortical neurons can be labeled with unique hues by helper virus-free HSV-1 vectors expressing Brainbow. A. I. GELLER*; G. ZHANG; H. ZHAO; H. CAO; X. LI. *New Jersey Neurosci. Inst., New Jersey Neurosci. Inst., new Jersey Neurosci. Inst.*
- 1:00 UU68 **850.05** Integral neuronal morphologies across the whole brain by fluorescence tomography. S. ZENG*; H. XIONG; F. XU; Q. LUO; H. GONG. *Huazhong Univ. of Sci. & Technol., Wuhan Natl. Lab. for Optoelectronics., Wuhan Inst. of Physics and Mathematics.*
- 2:00 UU69 **850.06** A simple and reliable technique for chronic non-invasive optical imaging of cortical activity in mice. M. TEICHERT*; A. DÖDING; K. LEHMANN; J. BOLZ. *Inst. Für Allgemeine Zoologie Und Tierphysiologie, Allgemeine Zoologie und Tierphysiologie.*
- 3:00 UU70 **850.07** *In vivo* imaging of neuronal differentiation and function of intracranially implanted induced pluripotent stem cells (ipscs) using a designer receptor exclusively activated by a designer drug (dreadd). B. JI*; H. KANEKO; H. INOUE; H. TAKEUCHI; K. KUMATA; M. ZHANG; I. AOKI; C. SEKI; M. ONO; M. TOKUNAGA; S. TSUKAMOTO; K. TANABE; K. TAKAHASHI; R. SHIN; T. MINAMIHISAMATSU; T. SUHARA; M. HIGUCHI. *Natl. Instit Radiolog, Kyoto Univ.*
- 4:00 UU71 **850.08** Imaging deep-layer neuronal activity in mouse barrel cortex using 1040-nm excitation of a red fluorescent-protein calcium indicator. S. CARTA*; J. L. CHEN; F. F. VOIGT; B. SCHNEIDER; M. OHKURA; J. NAKAI; F. HELMCHEN. *Zurich Univ., École polytechnique fédérale de Lausanne, Brain Sci. Inst.*
- 1:00 UU72 **850.09** Deep brain Ca²⁺ imaging of AGRP and POMC neuronal dynamics in the arcuate nucleus of freely moving mice. S. XU*; A. EISELT; C. MAGNUS; S. STERNSON. *Janelia Farm.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 2:00 UU73 **850.10** Signal-based adaptive optics two-photon microscopy of *in vivo* mouse brain. P. GALWADUGE*; S. H. KIM; L. E. GROSBERG; E. M. C. HILLMAN. *Columbia Univ.*

3:00 UU74 **850.11** Visualizing mammalian brain area interactions by dual-axis two-photon calcium-imaging. J. LECOQ*; J. SAVALL; D. VUCINIC; B. GREWE; J. LI; L. KITCH; M. J. SCHNITZER. *Stanford.*

4:00 UU75 **850.12** ▲ Multi-area imaging of large-scale cellular dynamics in anatomically defined neocortical networks. F. VOIGT*; J. L. CHEN; R. KRUEPPEL; F. HELMCHEN. *Brain Res. Inst.*

1:00 UU76 **850.13** ● High-speed, volumetric imaging of behaving organisms using swept oblique light sheet (solis) microscopy. V. VOLETI*; M. B. BOUCHARD; C. S. MENDES; C. LACEFIELD; W. B. GRUEBER; R. S. MANN; R. M. BRUNO; E. M. C. HILLMAN. *Columbia Univ., Columbia Univ., Columbia Univ., Columbia Univ.*

2:00 UU77 **850.14** Light-sheet imaging in zebrafish during visually driven virtual behavior. N. VLADIMIROV*; Y. MU; T. KAWASHIMA; D. V. BENNETT; C. YANG; L. L. LOOGER; P. J. KELLER; J. FREEMAN; M. B. AHRENS. *Janelia Farm Res. Campus, HHMI.*

3:00 UU78 **850.15** Comparison of the effect of sub-anaesthetic ketamine on brain activity and metabolism in conscious and anaesthetised rats by simultaneous electroencephalography (EEG) and 2-deoxyglucose autoradiography (2DG). C. SIMMONS*; M. MESQUITA; A. KONING; T. C. WOOD; A. C. VERNON; S. C. R. WILLIAMS; D. CASH. *Inst. of Psychiatry, Kings Col. London, Inst. of Psychiatry, Kings Col. London.*

4:00 UU79 **850.16** Electrophysiological correlates of BOLD in whisker and visual cortices. D. P. AKSENOV*; L. LI; M. MILLER; G. IORDANESCU; A. WYRWICZ. *NorthShore Univ. HealthSystem.*

1:00 UU80 **850.17** Chronic assessment of cerebral hemodynamics during rat forepaw electrical stimulation using functional ultrasound imaging. C. BRUNNER; E. MACE; H. MARC; J. ROSSIER; G. MONTALDO; A. URBAN*. *Ctr. De Psychiatrie Et Neurosciences - INSERM U894, Ctr. de Psychiatrie Et Neurosciences - INSERM U894.*

2:00 UU81 **850.18** Functional connectivity hubs in the conscious marmoset monkey. A. M. BELCHER*; D. TOMASI; C. C. C. YEN; L. NOTARDONATO; T. J. ROSS; Y. YANG; E. A. STEIN; N. D. VOLKOW; A. C. SILVA. *Univ. of Maryland Sch. of Med., Natl. Inst. on Drug Abuse, Natl. Inst. on Alcohol Abuse and Alcoholism, Natl. Inst. of Neurolog. Disorders and Stroke.*

3:00 UU82 **850.19** The microanatomical origin of the high-field magnetic resonance imaging signal in the marmoset cerebral cortex: Myelin sheaths or cell bodies? S. GEYER*; K. REIMANN; M. WEISS; D. ROSE; A. C. SILVA; M. G. P. ROSA; V. PINSKIY; A. TOLPYGO; P. P. MITRA; R. TURNER. *Max Planck Institute, Dept Neurophysics, NIH, Monash Univ., Cold Spring Harbor Lab.*

4:00 UU83 **850.20** Amplitude of low-frequency fluctuations in the awake, truly resting marmoset monkey. L. D. NOTARDONATO*; D. G. TOMASI; A. M. BELCHER; C. C. YEN; N. D. VOLKOW; A. C. SILVA. *NINDS, NIAAA, Univ. of Maryland.*

1:00 UU84 **850.21** ● fMRI signal dropout in rhesus macaque monkey due to chronic contrast agent administration. G. GAGIN*; K. S. BOHON; J. CONNELLY; B. R. CONWAY. *Wellesley Col., ApoPharma Inc, Harvard Med. Sch.*

2:00 UU85 **850.22** Use of MRI to non-invasively guide hydrogel treatment of stroke lesions in a rat model. M. M. MODO*; A. MASSENSINI; W. LING; C. MEDBERRY; F. NICHOLLS; S. BADYLAK. *Univ. of Pittsburgh, Univ. Federal de Minas Gerais, Univ. of Pittsburgh.*

3:00 UU86 **850.23** Chemical exchange saturation transfer (CEST) MRI may aid in the detection of CNS graft death/rejection. S. SAJJA*; G. LIU; N. YADAV; J. XU; A. ARNOLD; A. JABLONSKA; M. MCMAHON; P. VAN ZIJL; J. BULTE; P. WALCZAK; M. JANOWSKI. *Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med., Kennedy Krieger Inst., Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med., Polish Acad. of Sci., Polish Acad. of Sci.*

4:00 UU87 **850.24** High resolution MR-thermometry is a proper method to characterize thermal safety of chronic implantable medical device. F. REINHART; V. AUBOIROUX; C. CHABROL; F. DARLOT; N. TORRES-MARTINEZ; D. JOHNSTONE*; A. BENABID; J. MITROFANIS; C. MORO. *CEA - Commissariat à l'Energie Atomique et aux Energies Alternatives, Univ. of Sydney.*

1:00 UU88 **850.25** In-utero diffusion magnetic resonance imaging of the embryonic mouse brain. D. WU*; T. BORBIEV; I. BURD; J. ZHANG. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

2:00 UU89 **850.26** Highly-resolved ultrasound imaging of functional connectivity in the living rat brain. S. PEZET*; A. RICOBARAZA; B. OSMANSKI; M. TANTER; Z. LENKEI. *Lab. of Brain Plasticity, Inst. Langevin.*

3:00 UU90 **850.27** Enhanced localized delivery and therapeutic effects of the Neurturin neurotrophic factor through the focused ultrasound-mediated blood-brain barrier opening in wild-type and Parkinson's disease mouse model. G. SAMIOTAKI*; C. ACOSTA; S. WANG; E. KONOFAGOU. *Columbia Univ.*

4:00 UU91 **850.28** SPECT/CT imaging of Parkinson's disease in preclinical models. T. HUHTALA*; V. JANKOVIC; U. HERZBERG; R. PUSSINEN; P. SWEENEY; A. NURMI. *Charles River Discovery Res. Services Finland Ltd, Celgene Cell. Therapeut.*

1:00 UU92 **850.29** Label-free optically quantified brain metabolic rate of oxygen consumption. V. J. SRINIVASAN*; H. RADHAKRISHNAN; C. LEAHY; S. CHONG; C. W. MERKLE. *Univ. of California, Davis.*

2:00 VV1 **850.30** Histological quantitation of brain injury using whole slide imaging: A pilot validation study in mice. Z. CHEN; D. SHIN; S. CHEN; K. MIKHAIL; O. HADASS; B. TOMLISON; D. KORKIN; C. SHYU; J. CUI; D. ANTHONY; Z. GU*. *Univ. Missouri Sch. Med., Univ. of Missouri.*

POSTER

851. Optogenetics: Experimental Uses

Theme G: Novel Methods and Technology Development

Wed. 1:00 PM – *Walter E. Washington Convention Center, Halls A-C*

1:00 VV2 **851.01** Optogenetic and calcium-sensing mouse models available from The Jackson Laboratory. J. BECKWITH*; S. F. ROCKWOOD; M. SASNER. *The Jackson Lab.*

2:00 VV3 **851.02** Sleep homeostasis in optogenetically fatigued neurons. A. V. RODRIGUEZ*; C. M. FUNK; G. TONONI; C. GIBELLU. *Univ. of Wisconsin Madison*

851. Optogenetics: Experimental Uses

Wed. 1:00 PM – *Walter E. Washington Convention Center, Halls A-C*

2:00 **VV3 851.02** Sleep homeostasis in optogenetically fatigued neurons. A. V. RODRIGUEZ*, C. M. FUNK; G. TONONI; C. GIRELLI. *Univ. of Wisconsin Madison.*

- 3:00 VV4 **851.03** Optogenetic studies of synaptic function in spinal motor neurons. A. THARANEETHARAN*; M. A. HARRINGTON. *Delaware State Univ.*
- 4:00 VV5 **851.04** An optogenetic model to study motor and psychiatric symptoms of Parkinson's disease. D. ZWILLING*; W. ZHU; H. LEE; I. GALLAGER; S. P. BRAITHWAITE; K. R. THOMPSON. *Circuit Therapeut.*
- 1:00 VV6 **851.05** Optogenetic manipulation of oscillatory activity in the visual system of the cat. T. WUNDERLE*; C. LEWIS; J. NI; I. DIESTER; P. FRIES. *Ernst Strüngmann Inst. (ESI) for Neurosci., 2 Intl. Max Planck Res. Sch. for Neural Circuits, Donders Inst. for Brain, Cognition and Behaviour, Radboud Univ. Nijmegen.*
- 2:00 VV7 **851.06** Optogenetic entrainment of neuronal activity in the cat visual cortex. J. NI*; T. WUNDERLE; C. M. LEWIS; I. DIESTER; P. FRIES. *Ernst Strüngmann Inst. (ESI) for Neurosci., Intl. Max Planck Res. Sch. for Neural Circuits, Donders Inst. for Brain, Cognition and Behaviour, Radboud Univ. Nijmegen.*
- 3:00 VV8 **851.07** Striatopallidal neurons control motor activity through striatal collaterals. M. P. SURPRIS*; J. YOO; X. HOU; P. LI; Y. WANG; X. ZHOU; J. QU; S. DUAN; J. LU; H. YIN; J. CHEN. *Boston Univ., Wenzhou Med. Univ., Zhejiang Univ. Sch. of Med., Harvard Med. Sch. and Beth Israel Deaconess Med. Ctr., Duke Univ.*
- 4:00 VV9 **851.08** Distinct global dynamics of direct and indirect pathway striatal neurons. H. LEE*; M. CHOY; A. WEITZ; A. KRAVITZ; A. KREITZER; J. LEE. *Stanford Univ., Stanford Univ., NIH, Univ. of California, San Francisco.*
- 1:00 VV10 **851.09** Direct *in vivo* assessment of human stem cell graft-host neural circuits. A. WEITZ*; B. BYERS; H. J. LEE; J. LIU; P. LIN; P. ZHANG; A. SHCHEGLOVITOV; R. DOLMETSCH; R. REIJO PERA; J. H. LEE. *Stanford Univ., Stanford Univ., UCLA, Stanford Univ., Stanford Univ.*
- 2:00 VV11 **851.10** Whole brain dissection of central thalamic circuit function with optogenetic fMRI. J. LEE*; J. LIU; H. LEE; P. LIN; Z. FANG; A. WEITZ; R. FISHER; V. PINSKIY; P. MITRA; N. SCHIFF. *Stanford Univ., UCLA, Cold Spring Harbor Lab., Cornell Univ.*
- 3:00 VV12 **851.11** Optogenetic fMRI reveals distinct, frequency-dependent networks recruited by dorsal and intermediate hippocampus stimulations. M. CHOY*; A. J. WEITZ; Z. FANG; H. LEE; R. S. FISHER; W. C. SMITH; J. LIU; P. LIN; M. ROSENBERG; J. LEE. *Stanford Univ., Stanford Univ., UCLA.*
- 4:00 VV13 **851.12** Projection-specific optogenetic identification of midbrain dopamine neurons *in vivo*. S. DUVARCI*; L. SELESNEW; B. KERN; G. SCHNEIDER; T. SIGURDSSON; M. CHILLON; J. ROEPER. *Goethe-University Frankfurt, Freiburg Univ., Goethe-University, Univ. Autonoma de Barcelona.*
- 1:00 VV14 **851.13** Hypocretin regulation of catecholaminergic responses to cocaine. D. L. BERNSTEIN*; C. BASS; R. ESPAÑA. *Drexel Univ., State Univ. of New York.*
- 2:00 VV15 **851.14** Imaging the functional networks activated by optogenetic VTA stimulation in rats with fMRI and SPECT. M. J. BROCKA; D. VINCENZ; J. TEGTMEIER; T. LÜCKNER; K. TAKAGAKI; T. WANGER; J. GOLDSCHMIDT; F. W. OHL; F. ANGENSTEIN; M. T. LIPPERT*. *LIN Magdeburg, Ctr. for Behavioral Brain Sci. (CBBS), Otto-von-Guericke Univ., German Ctr. for Neurodegenerative Dis. (DZNE).*

- 3:00 VV16 **851.15** Optogenetically-induced spatiotemporal gamma oscillations and neuronal spiking activity in primate motor cortex. Y. LU*; W. TRUCCOLO; C. E. VARGAS-IRWIN; I. OZDEN; J. B. ZIMMERMANN; T. MAY; F. WAGNER; A. V. NURMIKKO. *Brown Univ., Brown Univ., Brown Univ., Ctr. for Neurorestoration and Neurotechnology, Brown Univ.*
- 4:00 VV17 **851.16** Optogenetic and 3-D anatomical mapping of intact neural circuits of the dorsal raphe nucleus. J. B. TREWEEK*; J. CHO; C. XIAO; L. R. BRENNER; B. YANG; C. CHEN; V. GRADINARU. *Caltech, Caltech, Caltech.*
- 1:00 VV18 **851.17** A subpopulation of neurons in the medial intermediate layer of the superior colliculus mediates visually guided innate defensive responses. P. WEI*; N. LIU; X. LIU; Z. ZHOU; L. WANG. *Shenzhen Inst. of Advanced Technol., The Univ. of Hong Kong.*

POSTER

852. Modeling Neurons, Circuits, and Behavior

Theme G: Novel Methods and Technology Development

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 VV19 **852.01** Calcium regulation of HCN supports persistent activity associated with working memory: A multiscale model of prefrontal cortex. S. A. NEYMOTIN*; R. A. MCDUGAL; M. L. HINES; W. W. LYTTON. *State Univ. of New York, Downstate Med. Ctr., Yale Med. Sch., Kings County Hosp. Ctr.*
- 2:00 VV20 **852.02** Stochastic diffusion simulation in NEURON. C. TROPPER*; M. PATAORY; R. MCDUGAL; M. HINES; W. LYTTON. *McGill Univ., McGill Univ., Yale Univ., SUNY Downstate.*
- 3:00 VV21 **852.03** Calcium 'impedance mismatch' -- the role of geometry on diffusion dynamics. R. A. MCDUGAL*; M. L. HINES; W. W. LYTTON. *Yale Univ., SUNY Downstate Med. Ctr., Kings County Hosp.*
- 4:00 VV22 **852.04** Integrating Systems Biology Markup Language (SBML) with NEURON. A. S. BULANOVA*; R. A. MCDUGAL; S. A. NEYMOTIN; V. K. MUTAI; W. W. LYTTON; M. L. HINES. *Yale Univ., Yale Univ., SUNY Downstate Med. Ctr.*
- 1:00 VV23 **852.05** Detection and morphological quantification of dendritic spines from *in vivo* multi-photon images. D. LABATE*; P. K. SINGH; P. HERNANDEZ-HERRERA; T. KECK; M. PAPADAKIS. *UNIVERSITY OF HOUSTON, UNIVERSITY OF HOUSTON, KING'S COLLEGE LONDON.*
- 2:00 VV24 **852.06** Computational analysis of the effects of anti-neoplastic agents on intraneuronal transport of human iPSC derived neurons. H. NAKAMURA*; N. YAMASHITA; Y. KANAMARU; Y. SEKINO; T. GOTOH; F. TANAKA; Y. GOSHIMA. *Yokohama City Univ. Grad. Sch. of Med., Dept. of Neurology, Yokohama City Univ. Grad. Sch. of Med., Grad. Sch. of Envrm. and Information Sciences, Yokohama Natl. Univ., Div. of Pharmacology, Natl. Inst. of Hlth. Sci.*
- 3:00 VV25 **852.07** *In vivo* and *in silico* studies implicate interleukin (IL)-18 as a central mediator in chronic pain. K. VASUDEVA*; Y. VODOVOTZ; N. AZHAR; D. BARCLAY; J. M. JANJIC; J. A. POLLOCK. *Duquesne Univ., Duquesne Univ., Univ. of Pittsburgh, Duquesne Univ.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 4:00 VV26 **852.08** Dynamic Neural Simulator - a simple tool for rapidly building and sharing large neural models. J. S. SHERFEY*; N. KOPELL. *Boston University, Sch. of Med., Boston Univ.*
- 1:00 VV27 **852.09** Multiscale modeling of the Pacinian corpuscle shows that receptor depth and structure contribute to unique response of receptor. J. QUINDLEN*; V. K. LAI; V. H. BAROCAS. *Univ. of Minnesota, Univ. of Minnesota.*
- 2:00 VV28 **852.10** A novel approach to modeling cortical activation of forearm muscles using genetic programming. J. BAARBÉ*; H. SALEHINEJAD; D. FORMAN; M. W. R. HOLMES. *Univ. of Ontario Inst. of Technol., Univ. of Ontario Inst. of Technol., Mem. Univ. of Newfoundland.*
- 3:00 VV29 **852.11** A computationally efficient 3D muscle simulation. A. RAMAKRISHNAN*; S. GISZTER. *Drexel Univ. Coll. of Med., Drexel Univ. Coll. of Med.*
- 4:00 VV30 **852.12** • Bayesian estimation of traction force generated by neuronal growth cone. S. KOZAWA*; Y. SAKUMURA; M. TORIYAMA; N. INAGAKI; K. IKEDA. *The Thomas N. Sato Biomec-X Laboratories, Advanced, ERATO Sato Live Bio-Forecasting Project, Japan Sci. and Technol. Agency (JST), Sch. of Information Sci. and Technology, Aichi Prefectural Univ., Grad. Sch. of Biol. Science, Nara Inst. of Sci. and Technol., Dept. of Mol. Cell and Developmental Biology, Univ. of Texas, Grad. Sch. of Information Science, Nara Inst. of Sci. and Technol.*
- 1:00 VV31 **852.13** • How to model the whole brain? F. ROTHGANGER*; D. TRUMBO; C. WARRENDER; J. AIMONE. *Sandia Natl. Labs.*
- 2:00 VV32 **852.14** Simulation of the effect of TMS on a single neuron. A. SABOUNI; D. SIEVENPIPER; A. SHMUEL*. *Wilkes Univ., UCSD, McGill Univ.*
- 3:00 VV33 **852.15** The deterministic information bottleneck. D. J. STROUSE*; D. SCHWAB. *Princeton Univ.*
- 4:00 VV34 **852.16** 3D computational model of infusion into rat brain hippocampus that accounts for fissures and fiber tracks. W. DAI*; M. SARNTINORANONT; G. ASTARY; A. K. KASINADHUNI; P. R. CARNEY; T. H. MARECI. *Univ. of Florida.*
- 1:00 VV35 **852.17** Self-organized critical phenomena in neural coding linked to synchronized high and low frequency oscillations. M. HIRABAYASHI*; H. KOJIMA; H. OHASHI. *Bio-ICT Lab., Advanced ICT Res. Institute, NICT, The Univ. of Tokyo.*
- 3:00 VV38 **853.03** *In vivo* whole brain dti analysis in cohort studies in mice, an analysis of statistical power. A. CORCOBA*; J. M. N. DUARTE; Y. VAN DE LOOIJ; N. KUNZ; R. GRUETTER; K. Q. DO CUENOD. *Ctr. D'Imagerie Biomedicale, EPFL, Ctr. of Psychiatric Neuroscience, Univ. Hosp., Div. of Child Growth & Development, Univ. of Geneva, Dept. of Radiology, Univ. Hosp., Natl. Ctr. of Competence in Res. (NCCR) "SYNAPSY - The Synaptic Bases of Mental Diseases".*
- 4:00 VV39 **853.04** Inferring oscillatory modulation in neural spike trains. K. ARAI*; R. E. KASS; J. SCOTT. *Carnegie Mellon Univ., Carnegie Mellon Univ., The Univ. of Texas at Austin.*
- 1:00 VV40 **853.05** Statistical association of oscillatory lfp and neural synchrony. P. ZHOU*; S. D. BURTON; R. C. KELLY; M. A. SMITH; N. N. URBAN; R. E. KASS. *Carnegie Mellon Univ., Google Inc., Univ. of Pittsburgh.*
- 2:00 VV41 **853.06** Recording human intracranial single neuron activity in electrically noisy clinical environments. P. N. STEINMETZ*; C. K. THORP. *Barrow Neurolog. Inst., Devicix, LLC.*
- 3:00 VV42 **853.07** Rate correction for spike-field coherence: Detection and estimation properties. M. C. AOI*; M. KRAMER; K. Q. LEPAGE; U. T. EDEN. *Boston Univ.*
- 4:00 VV43 **853.08** Quantification and analysis of kernel smoothed peristimulus time histograms. M. R. HILL*; I. FRIED; C. KOCH. *Caltech, UCLA, Allen Inst. for Brain Sci.*
- 1:00 VV44 **853.09** Comparing anatomy and physiology of the corticospinal tract across subjects: Microstimulation motor mapping and retrograde tracing of motor cortex neurons co-registered in 3-dimensional space. D. GUPTA*; J. B. CARMEL. *Burke-Cornell Med. Res. Inst., Weill Cornell Med. Col. of Cornell Univ.*
- 2:00 VV45 **853.10** EEG evoked-responses during viewing of natural stimuli are strongly driven by overt orienting of attention. J. J. KI*; A. ALAM; L. PARRA; S. HAUFÉ. *The City Col. of the City Univ. of New York.*
- 3:00 VV46 **853.11** Thalamotomy using MRI-guided focused ultrasound alters spontaneous brain networks in the essential tremor patients. M. YOON*; H. PARK; W. CHANG; M. OH; J. KIM; C. DO; J. LEE; J. CHANG. *Yonsei Univ., Brain Korea 21 PLUS Project for Med. Science, Yonsei Univ. Col. of Med., Nuclear Med., Yonsei Univ., Dept. of Neurosurgery, Yonsei Univ. Col. of Med.*
- 4:00 VV47 **853.12** The Gene Expression Database (GXD): Integrated access to mouse developmental data. J. H. FINGER*; T. F. HAYAMIZU; I. J. MCCRIGHT; C. M. SMITH; J. XU; J. T. EPPIG; J. A. KADIN; J. E. RICHARDSON; M. RINGWALD. *The Jackson Lab.*
- 1:00 VV48 **853.13** Mapping genetic variation to morphology and behavior in free-ranging rhesus macaques. S. MADLON-KAY*; K. WATSON; L. BRENT; M. PLATT. *Duke Univ., Duke Univ., Univ. of Exeter, Duke Univ.*
- 2:00 VV49 **853.14** Application of advanced feature recognition and statistical physics methods to quantify age-related changes in myelinated nerve fibers in monkey brain. J. R. SANTOS*; C. H. COMIN; D. CORRADINI; W. MORRISON; C. CURME; D. L. ROSENE; A. GABRIELLI; L. F. COSTA; H. STANLEY. *Boston Univ., Boston Univ., Inst. of Physics at Sao Carlos, Boston Univ., Inst. dei Sistemi Complessi.*

POSTER

853. Data Analysis and Statistics III

Theme G: Novel Methods and Technology Development

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 VV36 **853.01** Quantifying dynamics in neuronal networks. D. MARUYAMA*; N. OGNJANOVSKI; S. ATON; M. ZOCHOWSKI. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*
- 2:00 VV37 **853.02** Node dynamics in time-dependent brain networks. Q. K. TELESFORD*; D. BASSETT. *Univ. of Pennsylvania.*
- 1:00 VV48 **853.13** Mapping genetic variation to morphology and behavior in free-ranging rhesus macaques. S. MADLON-KAY*; K. WATSON; L. BRENT; M. PLATT. *Duke Univ., Duke Univ., Univ. of Exeter, Duke Univ.*
- 2:00 VV49 **853.14** Application of advanced feature recognition and statistical physics methods to quantify age-related changes in myelinated nerve fibers in monkey brain. J. R. SANTOS*; C. H. COMIN; D. CORRADINI; W. MORRISON; C. CURME; D. L. ROSENE; A. GABRIELLI; L. F. COSTA; H. STANLEY. *Boston Univ., Boston Univ., Inst. of Physics at Sao Carlos, Boston Univ., Inst. dei Sistemi Complessi.*

3:00 VV50 **853.15** Cohort removal induces hyperthermia, increased pain sensitivity, and decreased anxiety-like behavior. K. TAKAO*; S. HATTORI; H. SHOJI; T. MIYAKAWA. *Natl. Inst. For Physiological Sci., JST, CREST, Fujita Hlth. Univ., Natl. Inst. For Physiological Sci.*

POSTER

854. Data Analysis and Statistics: Software Tools

Theme G: Novel Methods and Technology Development

Wed. 1:00 PM – Walter E. Washington Convention Center, Halls A-C

- 1:00 VV51 **854.01** Image J software designed to quantify multiple labels in sectioned tissue from confocal stacks in large experimental datasets. A. DAYAL; D. L. HILL*. *Univ. of Chicago, Univ. Virginia.*
- 2:00 VV52 **854.02** Acquiring practical population estimates of neurons through design-based stereology: Dissecting the disector. D. ZADORY; E. BURTON; J. C. WOLF*. *Exptl. Pathology Laboratories, Inc.*
- 3:00 VV53 **854.03** Managing experimental data, metadata and automatic data importing in a neurophysiology lab. M. NOVELLI; L. E. FISHER*; R. GAUNT; D. J. WEBER. *Univ. of Pittsburgh, Univ. of Pittsburgh.*
- 4:00 VV54 **854.04** Automated calcium imaging analysis in ilastik, the interactive learning and segmentation toolkit. F. DIEGO; J. KIRKHAM; S. BERG; S. PERON; M. SCHIEGG; T. KROEGER; A. KRESHUK*; U. KOETHE; F. A. HAMPRECHT. *Univ. of Heidelberg, HHMI Janelia Farm.*
- 1:00 VV55 **854.05** Extracting a comprehensive map of the *Drosophila* medulla: A solution for reconstructing large EM connectomes. S. PLAZA; P. K. RIVLIN*; S. TAKEMURA; L. UYAMAM; Z. LU; S. C. XU; T. PARAG; D. J. OLBRIS; T. ZHAO; W. KATZ; J. A. HORNE; C. WEAVER; S. TAKEMURA; R. ANICETO; L. CHANG; M. GARCIA; S. LAUCHIE; O. OGUNDEYI; C. SIGMUND; J. TRAN; C. LANGILLE; K. LE LACHEUR; S. MCLIN; A. SHINOMIYA; H. HESS; I. A. MEINERTZHAGEN; L. K. SCHEFFER. *HHMI/Janelia Farm Res. Campus, Dalhousie Univ.*
- 2:00 VV56 **854.06** Analysis tools for connectomes. L. SCHEFFER*; C. WEAVER; S. TAKEMURA; P. RIVLIN; S. PLAZA; I. MEINERTZHAGEN. *HHMI, Dalhousie.*
- 3:00 VV57 **854.07** Interactive registration workflows for label quantification of light-based microscopy images. I. BOWMAN*; M. BAY; M. Y. SONG; M. S. BIENKOWSKI; A. TOGA; H. DONG. *USC INI.*
- 4:00 VV58 **854.08** Mapping behavior to neural anatomy in *Drosophila melanogaster* using machine vision and thermogenetics. A. A. ROBIE*; M. RIVERA-ALBA; M. KABRA; A. EDWARDS; W. KORFF; K. M. BRANSON. *HHMI - JFRC.*
- 1:00 VV59 **854.09** WITHDRAWN.
- 2:00 VV60 **854.10** *Drosophila* larva foraging strategies: Automatic tools for high-throughput comparative studies. M. RIVERA-ALBA; M. KABRA; C. K. MIRTH; K. M. BRANSON*. *HHMI Janelia Farm Res. Campus, Inst. Gulbenkian de Ciência.*
- 3:00 VV61 **854.11** How susceptible is the brain to the side-channel private information extraction? An experimental analysis using non-invasive brain-computer interfaces. T. BONACI*; J. HERRON; T. LIBEY; B. MOGEN; H. J. CHIZECK. *Univ. of Washington, Univ. of Washington.*

- 4:00 VV62 **854.12** Flokka: a document prioritization system for aiding neuroscience knowledge base curation. K. H. AMBERT*; A. M. COHEN; G. A. P. C. BURNS; E. BOUDREAU; K. SONMEZ. *Intel Labs, Oregon Hlth. & Sci. Univ., USC.*
- 1:00 VV63 **854.13** Quality control software and visualization for diffusion tensor imaging. K. J. WHITAKER*. *Brain Mapping Unit.*
- 2:00 VV64 **854.14** Automatized depth electrode for electroencephalographic recording in epilepsy using alternative software. J. R. BELTRAN*; M. MACIEL ARELLANO; G. GARCIA TORALES. *Univ. Guadalajara, Ctr. de Enseñanza Técnica Industrial, Univ. Guadalajara.*
- 3:00 VV65 **854.15** Mobile applications for acquiring experimental metadata: Supporting data description/reproducibility at the bench. Y. LE FRANC*; D. GONZALEZ; I. MYLYANYK; J. GREWE; P. JEZEK; R. MOUČEK; T. WACHTLER. *Univ. of Antwerp, Ludwig-Maximilians-Universität München, Eberhard Karls Univ. Tübingen, Univ. of West Bohemia.*
- 4:00 VV66 **854.16** ● What is a complete record of observational neuroscience data? P. S. PENNEFATHER*; W. SUHANIC. *Univ. Toronto, gDial Inc.*
- 1:00 VV67 **854.17** Neuroimaging informatics tools and resources clearinghouse (nitrc): A resource for education in neuroimaging techniques. D. N. KENNEDY*; C. HASELGROVE. *U. Massachusetts Med.*
- 2:00 VV68 **854.18** A bi-directional neuro-robotic system for the study of computational properties of neuronal assemblies. J. TESSADORI; M. BISIO; I. NAVA; M. CHIAPPALONE*. *Istituto Italiano Di Tecnologia.*
- 3:00 VV69 **854.19** Improved M-Sorter with unsupervised clustering. W. MA*; J. SI. *Arizona State Univ.*
- 4:00 VV70 **854.20** Google glass display for a brain-computer interface. R. E. ALCAIDE*; D. BROWN; X. MA; A. AREF; J. HUGGINS. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*
- 1:00 VV71 **854.21** Prototypes of software portal and stimulation device for electrophysiological research. R. MOUCEK*; P. JEZEK; P. MAUTNER; J. NOVOTNÝ; M. BYDŽOVSKÝ; J. RINKES; T. PROKOP; J. ŠTĚBETÁK; P. BRŮHA. *Univ. of West Bohemia.*
- 2:00 VV72 **854.22** Complete process for collecting of well-described EEG/ERP experiments using mobile devices and their storage in remote databases. P. JEZEK*; V. PAPEŽ; R. MOUČEK. *Univ. of West Bohemia.*
- 3:00 VV73 **854.23** Effects of personal electronic health record system on reasoning in neurophysiology experiments. V. PAPEŽ*; R. MOUČEK; P. JEZEK; T. ŘONDÍK. *Univ. of West Bohemia, Univ. of West Bohemia.*
- 4:00 VV74 **854.24** Solution for batch processing of electrophysiological data. T. ŘONDÍK*; V. PAPEŽ; R. MOUČEK. *Univ. of West Bohemia, Univ. of West Bohemia.*
- 1:00 VV75 **854.25** ▲ Characterizing modular structure in neuroimaging data: The network community architecture toolbox. D. BAKER; S. FELDT MULDOON; S. GU; A. KHAMBHATI; M. MATTAR; Q. TELESFORD; M. YANG; D. S. BASSETT*. *Univ. of Pennsylvania, Univ. of Pennsylvania.*
- 2:00 VV76 **854.26** ● Kinematic assessments effectively guide longitudinal treatment of upper limb tremor in Parkinson's disease. J. LEE*; F. RAHIMI; O. SAMOTUS; M. JACKMAN; M. JOG. *Univ. of Western Ontario, Univ. of Western Ontario.*

* Indicated a real or perceived conflict of interest, see page153 for details.

▲ Indicates a high school or undergraduate student presenter.

- 3:00 VV77 **854.27** ● The next step: A wearable device for longitudinal data collection of sleep and movement. R. S. KALMAR*; M. DIAMOND; S. DIAMOND; S. IYENGAR. *Misfit Wearables*.
- 4:00 VV78 **854.28** Automation of mouse brain extraction for computational neuroimage analysis. A. DELORA; A. GONZALES; E. L. BEARER*. *UNM Sch. of Med., Caltech*.
- 1:00 VV79 **854.29** Pyoperant: An open source python package for operant conditioning. T. GENTNER*; J. T. KIGGINS; M. THIELK. *UCSD, UC San Diego*.

Conflict of Interest Statements

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

ABSTRACT NUMBER	STATEMENT	ABSTRACT NUMBER	STATEMENT
664.05	D. Geschwind: F. Consulting Fees (e.g., advisory boards); SynapDx.		royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Owner of PARP inhibitor patent.
668.06	F. Zhang: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Editas Medicine. F. Consulting Fees (e.g., advisory boards); Editas Medicine.	677.07	M.C. Tucci: F. Consulting Fees (e.g., advisory boards); FUS Instruments, Inc.
668.07	H. Okano: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); A patent holder (US 8,592, 643 B6, USA): "METHOD FOR INTRODUCING A HUMAN GENE INTO A MARMOSET EMBRYO FOR MAKING TRANSGENIC MARMOSET". F. Consulting Fees (e.g., advisory boards); Consultant of Eisai Co Ltd.	679.09	M. Falangola: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lumos Labs, Inc., San Francisco, CA.
669	D.D. Ginty: A. Employment/Salary (full or part-time); full time. F. Consulting Fees (e.g., advisory boards); NIH.	680.06	D. Simon: A. Employment/Salary (full or part-time); OBOE IPR. D. Nilsson: A. Employment/Salary (full or part-time); OBOE IPR. M. Berggren: A. Employment/Salary (full or part-time); OBOE ICT.
670.07	J.M. Lewis: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Mayo Clinic royalties.	681.09	S. Shin: A. Employment/Salary (full or part-time); Thermo Fisher Scientific. M. Cokonis: A. Employment/Salary (full or part-time); Thermo Fisher Scientific. Y. Yan: A. Employment/Salary (full or part-time); Thermo Fisher Scientific. K. Vedvik: A. Employment/Salary (full or part-time); Thermo Fisher Scientific. L. Reichling: A. Employment/Salary (full or part-time); Thermo Fisher Scientific. R. Newman: A. Employment/Salary (full or part-time); Thermo Fisher Scientific. R. Fisher: A. Employment/Salary (full or part-time); Thermo Fisher Scientific. B. Hanson: A. Employment/Salary (full or part-time); Thermo Fisher Scientific. M. Vemuri: A. Employment/Salary (full or part-time); Thermo Fisher Scientific. D. Kuninger: A. Employment/Salary (full or part-time); Thermo Fisher Scientific.
671.04	G.R. Hook: A. Employment/Salary (full or part-time); salary, American Life Science Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Equity interest, American Life Science Pharmaceuticals. S. Jacobsen: A. Employment/Salary (full or part-time); Salary, AstraZeneca. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Equity interest, American Life Science Pharmaceuticals. M. Kindy: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Equity interest, Applied Neurotechnology. V. Hook: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Equity interest, American Life Science Pharmaceuticals.	688.08	Y. Liu: A. Employment/Salary (full or part-time); NIA, NIH.
671.05	M.M. Racke: A. Employment/Salary (full or part-time); Eli Lilly. J.T. Hole: A. Employment/Salary (full or part-time); Eli Lilly. J.A. Tzaferis: A. Employment/Salary (full or part-time); Eli Lilly. R.B. DeMattos: A. Employment/Salary (full or part-time); Eli Lilly.	689.01	R.L. Bigler: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Mead Johnson Nutrition. T. Nagendran: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Mead Johnson Nutrition. A.M. Taylor: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Mead Johnson Nutrition. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); UC Irvine, Xona Microfluidics, LLC.
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672.07	J. Lee-Summers: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Jennifer Lee-Summers has received research funding from Covidien in the past.	689.20	D.G. Wheeler: A. Employment/Salary (full or part-time); Dart NeuroScience. K. Baumgaertel: A. Employment/Salary (full or part-time); Dart NeuroScience. D. Elow: A. Employment/Salary (full or part-time); Dart NeuroScience. R. Johnson: A. Employment/Salary (full or part-time); Dart NeuroScience. J. Lapira: A. Employment/Salary (full or part-time); Dart NeuroScience. W. Jiang: A. Employment/Salary (full or part-time); Dart NeuroScience. R. Barido: A. Employment/Salary (full or part-time); Dart NeuroScience. T. Tully: A. Employment/Salary (full or part-time); Dart NeuroScience. R. Scott: A. Employment/Salary (full or part-time); Dart NeuroScience. M. Peters: A. Employment/Salary (full or part-time); Dart NeuroScience.
673.02	F. Moroni: E. Ownership Interest (stock, stock options,	690.03	R. Medapati: A. Employment/Salary (full or part-time); Suven Life Sciences LTD. N. Muddana: A. Employment/Salary (full or part-time); Suven Life Sciences LTD. A.K. Shinde: A. Employment/Salary (full or part-time); Suven Life Sciences LTD. P. Jayarajan: A. Employment/Salary (full or part-time); Suven Life Sciences LTD. V. Mekala: A. Employment/Salary (full or part-time); Suven Life Sciences LTD. S. Irapannanavar: A. Employment/Salary (full or part-time); Suven Life Sciences LTD. V. Kanamarlapudi: A. Employment/Salary (full or part-time); Suven Life Sciences LTD. R. Ponnamaneni: A. Employment/Salary

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690.10 **W.K. Summers**: A. Employment/Salary (full or part-time); Alzheimer's Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Alzheimer's Corporation. **R.L. Martin**: A. Employment/Salary (full or part-time); Alzheimer's Corporation.

691.06 **C. Louis**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **L. Danober**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **I. Carrié**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **N. Dumas**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **K. Albinet**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **K. Llopis**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **A. Roger**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **M. Gandon**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **A. Hugot**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **M. Krentner**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **J. Thomas**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **N. Rogez**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **M. Vandesquille**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **A. Krazem**: 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; contracted research. **D. Béracochéa**: 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; Contracted Research. **V. Bertaina-Anglade**: 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; Contracted Research. **C. Drieu La Rochelle**: 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; Contracted Research. **C. Junges**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **M. Bertrand**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **S. Billiald**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **C. Tordjman**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **A. Cordi**: A. Employment/Salary (full or part-time); Institut de Recherches Servier. **P. Lestage**: A. Employment/Salary (full or part-time); Institut de Recherches Servier.

691.11 **K.F. Herrik**: A. Employment/Salary (full or part-time); Lundbeck. **M.A. Foraster**: A. Employment/Salary (full or part-time); Lun. **N. Richard**: A. Employment/Salary (full or part-time); Lundbeck. **M. Garmer**: A. Employment/Salary (full or part-time); Lundbeck. **J.F. Bastlund**: A.

Employment/Salary (full or part-time); Lundbeck. **I.E.M. De Jong**: A. Employment/Salary (full or part-time); Lundbeck. **A. Mørk**: A. Employment/Salary (full or part-time); Lundbeck.

691.18 **C. Silky**: A. Employment/Salary (full or part-time); Cognition Therapeutics. **N. Izzo**: A. Employment/Salary (full or part-time); Cognition Therapeutics. **K. Mozzoni**: A. Employment/Salary (full or part-time); Cognition Therapeutics. **C. Rehak**: A. Employment/Salary (full or part-time); Cognition Therapeutics. **R. Yurko**: A. Employment/Salary (full or part-time); Cognition Therapeutics. **G. Rishton**: A. Employment/Salary (full or part-time); Cognition Therapeutics. **G. Look**: A. Employment/Salary (full or part-time); Cognition Therapeutics. **H. Safferstein**: A. Employment/Salary (full or part-time); Cognition Therapeutics. **S. Catalano**: A. Employment/Salary (full or part-time); Cognition Therapeutics.

691.21 **E.D. Roberson**: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); intellectual property.

691.24 **H. Kim**: A. Employment/Salary (full or part-time); BrainKorea21plus. 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; grants from Korea Healthcare Technology R&D Project (A111230), the National Research Foundation of Korea (NRF), and in part by Seoul National University Bundang Hospital Research Fund.

692.06 **M.J. Zigmond**: A. Employment/Salary (full or part-time); University of Pittsburgh. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; NINDS.

692.07 **W. Zhang**: A. Employment/Salary (full or part-time); Southern Medical University, Dept. of Neurosurgery, Zhujiang hospital.

692.09 **M.H. Voutilainen**: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); : Possible author conflict of interest is indicated. Details: M.S., R.K.T. and M.H.V. are inventors of the CDNF patent, which belongs to HermoPharma Ltd. M.S. is founder and shareholder of HermoPharma. **R.K. Tuominen**: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); : Possible author conflict of interest is indicated. Details: M.S., R.K.T. and M.H.V. are inventors of the CDNF patent, which belongs to HermoPharma Ltd. M.S. is founder and shareholder of HermoPharma. **M. Saarma**: Other; : Possible author conflict of interest is indicated. Details: M.S., R.K.T. and M.H.V. are inventors of the CDNF patent, which belongs to HermoPharma Ltd. M.S. is founder and shareholder of HermoPharma.

692.15 **H.A. Robertson**: A. Employment/Salary (full or part-time); Neurodyn inc. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Neurodyn inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurodyn inc. **C.A. Shaw**: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurodyn inc. **D. Baranowski**: A. Employment/Salary (full or part-time); Neurodyn inc. **D.G. Kay**: A. Employment/Salary (full or part-time); Neurodyn inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurodyn Inc. **J. Van Kampen**: A. Employment/Salary (full or part-time);

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	Neurodyn inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurodyn inc.		Fees (e.g., advisory boards); Confluence Pharmaceuticals LLC.
693.01	J. Leverenz: F. Consulting Fees (e.g., advisory boards); Dr. Leverenz has been a paid consultant for Boehringer-Ingelheim, Navidea Biopharmaceuticals, and Piramal Healthcare.	699.21	B.S. Martin: A. Employment/Salary (full or part-time); SAGE Therapeutics. 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; SAGE Therapeutics. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); SAGE Therapeutics. F. Consulting Fees (e.g., advisory boards); SAGE Therapeutics. J. Corbin: 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; SAGE Therapeutics. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); SAGE Therapeutics. F. Consulting Fees (e.g., advisory boards); SAGE Therapeutics. M.M. Huntsman: F. Consulting Fees (e.g., advisory boards); SAGE Therapeutics. G. Martinez-Botella: A. Employment/Salary (full or part-time); SAGE Therapeutics. C.M. Loya: A. Employment/Salary (full or part-time); SAGE Therapeutics. F.G. Salituro: A. Employment/Salary (full or part-time); SAGE Therapeutics. A.J. Robichaud: A. Employment/Salary (full or part-time); SAGE Therapeutics. J.J. Doherty: A. Employment/Salary (full or part-time); SAGE Therapeutics. M.A. Ackley: A. Employment/Salary (full or part-time); SAGE Therapeutics.
693.04	E.A. Waxman: A. Employment/Salary (full or part-time); Medical Diagnostic Laboratories. B.K. Joseph: A. Employment/Salary (full or part-time); Medical Diagnostic Laboratories.		
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697.02	P.A. Trimmer: A. Employment/Salary (full or part-time); Virginia Commonwealth University. E. Cronin-Furman: A. Employment/Salary (full or part-time); University of Virginia. K. Bergquist: A. Employment/Salary (full or part-time); Virginia Commonwealth University.		
697.11	W. Meissner: A. Employment/Salary (full or part-time); University Bordeaux. 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; Michael J Fox Foundation, the University Hospital Bordeaux, the French Health Ministry, the European Community and PSP-France. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); Teaching honoraria and travel grants from Affiris, Lundbeck, Novartis, TEVA and UCB.	700.09	J. Biederman: 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; APSARD, EIMindA, Hanssen, McNeil, Shire, and VayaPharma/Enzymotec. F. Consulting Fees (e.g., advisory boards); Shinogi Pharma Inc, Cipher Pharmaceuticals, Abbott, Alza, AstraZeneca, Bristol Myers, Cephalon, Eli Lilly. T. Spencer: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Provisional Number #61/233, 686. F. Consulting Fees (e.g., advisory boards); Alcobra, Shire Laboratories, Eli Lilly, Glaxo-Smith Kline, Janssen Pharmaceutical, Novartis, Cephalon, Pfizer. A. Brown: A. Employment/Salary (full or part-time); Alkermes Inc.
697.13	A.L. Boxer: 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; BMS, C2N, Eli Lilly, Genentech, Janssen, Pfizer, TauRX. F. Consulting Fees (e.g., advisory boards); Acetylon, Archer, Ipiaran, Isis, Neurophage. Other; CBD Solutions, Alzheimer's Association, Bluefield Project to Cure FTD.	700.10	J.H. Jensen: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent holder for the MFC imaging method; patent is owned by NYU. J.A. Helpen: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent holder of the MFC imaging method; patent owned by NYU.
697.18	M.S. Jog: 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; Dr. Jog is an advisor to Merz Pharma as an expert Movement Disorders Neurologist.	702.21	S. Cavallaro: A. Employment/Salary (full or part-time); Institute of Neurological Science-National Research Council, Institute of Cellular Biology and Neurobiology-National Research Council.
698.06	R.D. Brinton: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents pending on allopregnanolone as a therapeutic for mild cognitive impairment and Alzheimer's disease.	703.14	P.C.M. van Zijl: F. Consulting Fees (e.g., advisory boards); Philips.
698.09	C.M. Loya: A. Employment/Salary (full or part-time); Employee of Sage Therapeutics. M. Rogawski: 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 Department of Defense under award number W81XWH-09-1-0746 to MAR. Views and opinions of, and endorsements do not reflect those of the US Army or the Department of Defense. R.D. Brinton: Other; Patents pending on allopregnanolone as a therapeutic for mild cognitive impairment and Alzheimer's disease.	703.15	A. Cattaneo: A. Employment/Salary (full or part-time); King's College London London, UK; IRCCS Fatebenefratelli Brescia, Italy. A. Luoni: A. Employment/Salary (full or part-time); Center of Neuropharmacology, Dipartimento di Scienze Farmacologiche e Biomolecolari, Università degli Studi di Milano. C. Pariante: 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; Medical Research Council, National Institute of Health Research and other NHS-related funding, Biomedical Research Centre in Mental Health at South London and Maudsley NHS Foundation Trust and King's. M. Riva: 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
699.19	T.L. Schaefer: 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; Confluence Pharmaceuticals LLC. C.A. Erickson: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Confluence Pharmaceuticals LLC. F. Consulting		

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- 703.19 **J.C. Wiley:** A. Employment/Salary (full or part-time); GE Healthcare.
- 705.13 **C. Lindwall-Blom:** A. Employment/Salary (full or part-time); Employment Collectricon.
- 705.24 **D.E. Benjamin:** A. Employment/Salary (full or part-time); Cenoxsys Corporation.
- 706.23 **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; Dr. Lewis currently receives investigator-initiated research support from the Bristol-Myers Squibb Foundation, Bristol-Myers Squibb, Curridium Ltd, and Pfizer.
- 707.02 **M.A. Riva:** 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, Sunovion. F. Consulting Fees (e.g., advisory boards); Bristol-Myers Squibb, Daiippon Sumitomo Pharma, Eli Lilly, Roche, Servier, Sunovion.
- 707.28 **D. Young:** A. Employment/Salary (full or part-time); Pfizer Inc. Other; This work is part of the Innovative Medicines Initiative (IMI) project, Novel Methods leading to New Medications in Depression and Schizophrenia (NEWMEDS). **T.A. Lanz:** A. Employment/Salary (full or part-time); Pfizer Inc. **R. Kozak:** A. Employment/Salary (full or part-time); Pfizer Inc. **W.M. Howe:** A. Employment/Salary (full or part-time); Pfizer Inc.
- 708.07 **M. Davoli:** A. Employment/Salary (full or part-time); Douglas Mental Health University Institute. **N. Mechawar:** 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.
- 708.10 **R. Hen:** F. Consulting Fees (e.g., advisory boards); Lundbeck, Servier, Roche.
- 709.01 **P. Stienen:** A. Employment/Salary (full or part-time); AstraZeneca. **A. Rachalski:** A. Employment/Salary (full or part-time); AstraZeneca. **E. Åberg:** A. Employment/Salary (full or part-time); AstraZeneca.
- 709.02 **M. Berk:** 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; Stanley Medical Research Foundation, MBF, NHMRC, BeyondBlue, Geelong Medical Research Foundation, Bristol Myers Squibb, Eli Lilly, Glaxo SmithKline, Organon, Novartis, Mayne Pharma, Servier. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); Astra Zeneca, Bristol Myers Squibb, Eli Lilly, Glaxo SmithKline, Lundbeck, Pfizer, Sanofi Synthelabo, Servier, Solvay, Wyeth. F. Consulting Fees (e.g., advisory boards); AstraZeneca, Bristol Myers Squibb, Eli Lilly, Glaxo SmithKline, Lundbeck, Janssen Cilag, Servier.
- 709.07 **M.A. Riva:** 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, Sunovion. F. Consulting Fees (e.g., advisory boards); Bristol-Myers Squibb, Daiippon Sumitomo Pharma, Eli Lilly, Roche, Servier, Sunovion.
- 709.08 **E.H.F. Wong:** A. Employment/Salary (full or part-time);

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- 709.29 **J. Seo:** A. Employment/Salary (full or part-time); Rockefeller Univ. **Y. Kim:** A. Employment/Salary (full or part-time); Rockefeller Univ. **P. Greengard:** A. Employment/Salary (full or part-time); Rockefeller Univ.
- 710.07 **W.E. Bunney:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pritzker Neuropsychiatric Disorders Research Consortium. **R.M. Myers:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pritzker Neuropsychiatric Disorders Research Consortium. **J.D. Barchas:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pritzker Neuropsychiatric Disorders Research Consortium. **A. Schatzberg:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pritzker Neuropsychiatric Disorders Research Consortium. **S.J. Watson:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pritzker Neuropsychiatric Disorders Research Consortium. **H. Akil:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pritzker Neuropsychiatric Disorders Research Consortium.
- 711.18 **M. Popoli:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Servier Pharma, Fidia.
- 711.28 **J. Guilloux:** 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 Research USA. **D. Felice:** 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 Research USA. **Y. Li:** A. Employment/Salary (full or part-time); Lundbeck Research, USA. **A.L. Pehrson:** A. Employment/Salary (full or part-time); Lundbeck Research, USA. **I. Mendez-David:** 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 Research USA. **A.M. Gardier:** 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 Research USA. **C. Sanchez:** A. Employment/Salary (full or part-time); Lundbeck Research, USA. **D.J.P. David:** 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 Research USA.
- 713.01 **M.M. Seavey:** A. Employment/Salary (full or part-time); Teva Pharmaceuticals USA. **D.M. Cerasoli:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Teva Pharmaceuticals. **C.L. Cadieux:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Teva Pharmaceuticals. **M.V. Boeri:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Teva Pharmaceuticals. **S.M. Hodgins:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Teva Pharmaceuticals. **C.A. Hofstetter:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support);

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- 713.02 **R. Gabathuler:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); biOasis Technologies Inc. F. Consulting Fees (e.g., advisory boards); biOasis Technologies Inc. **M. Tian:** F. Consulting Fees (e.g., advisory boards); biOasis Technologies Inc. **W. Jefferies:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); biOasis Technologies Inc. F. Consulting Fees (e.g., advisory boards); biOasis Technologies Inc.
- 713.03 **J.A. Monn:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **J.M. Witkin:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **P.L. Ornstein:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **C.H. Mitch:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **R. Li:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **S.C. Smith:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **X. Wang:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **C. Xiang:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **J.H. Carter:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **J. Wang:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **S. Atwell:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **F. Pasqui:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **S.M. Fitzjohn:** A. Employment/Salary (full or part-time); Eli Lilly and Company. **B.A. Heinz:** A. Employment/Salary (full or part-time); Eli Lilly and Company.
- 713.05 **H.A. Geerts:** A. Employment/Salary (full or part-time); In Silico Biosciences. **A. Spiros:** A. Employment/Salary (full or part-time); In Silico Biosciences.
- 713.06 **A. Harada:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company. **K. Suzuki:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company. **J. Kunitomo:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company. **N. Kamiguchi:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company. **M. Miyamoto:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company. **K. Tohyama:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company. **K. Nakashima:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company. **T. Taniguchi:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company. **H. Kimura:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company.
- 713.08 **J. Kunitomo:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **M. Fushimi:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **M. Yoshikawa:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **A. Kawada:** A. Employment/Salary (full or part-

- time); Takeda Pharmaceutical Company Limited. **T. Hasui:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **T. Hitaka:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **H. Oki:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **Y. Hayano:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **H. Kokubo:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **K. Nakashima:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **M. Kondo:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **K. Suzuki:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **H. Kimura:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **T. Taniguchi:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited.
- 713.10 **C. Overshiner:** A. Employment/Salary (full or part-time); Eli Lilly. **X. Li:** A. Employment/Salary (full or part-time); Eli Lilly. **G. Gilmour:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **J. Li:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **L. Rorick-Kehn:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **K. Rasmussen:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **B. Johnson:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **S.N. Mitchell:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **D. McKinzie:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **A. Nikolayev:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **V. Tolstikov:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **M. Kuo:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **P. Ornstein:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **C. Mitch:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **R. Li:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **S. Smith:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **X. Wang:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **B. Heinz:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **D. Allen:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **S. Swanson:** A. Employment/Salary (full or part-time); Eli Lilly and Co. **J. Monn:** A. Employment/Salary (full or part-time); Eli Lilly and Co.
- 713.11 **K. Suzuki:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **A. Harada:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Ltd. **E. Shiraishi:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Ltd. **T. Taniguchi:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Ltd. **H. Kimura:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Ltd.
- 713.12 **N. Mello:** A. Employment/Salary (full or part-time); University of Maryland-Baltimore. **P. Gramlich:** A. Employment/Salary (full or part-time); VA Hospital-Baltimore, John Hopkins University. **M. Remington:** A. Employment/Salary (full or part-time); VA Hospital-Baltimore. **P. Fisman:** A. Employment/Salary (full or part-time); University of Maryland Baltimore, VA Hospital-Baltimore.
- 713.15 **J.E. Lachowicz:** A. Employment/Salary (full or part-time); Angiochem. **M. Demeule:** A. Employment/Salary (full or part-time); Angiochem. **A. Regina:** A. Employment/Salary (full or part-time); Angiochem. **S. Das:** A. Employment/Salary (full or part-time); Angiochem. **K. Moktefi:** A. Employment/Salary (full or part-time); Angiochem. **A. Larocque:** A. Employment/Salary (full or part-time); Angiochem. **D. Boivin:** A. Employment/Salary (full or part-time); Angiochem. **S. Lord-Dufour:** A. Employment/Salary (full or part-time); Angiochem. **J. Castaigne:** A. Employment/Salary (full or part-time); Angiochem.
- 713.19 **H. Kimura:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **K.**

Suzuki: A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **A. Harada:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **E. Shiraishi:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **N. Kamiguchi:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **K. Nakashima:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited. **T. Taniguchi:** A. Employment/Salary (full or part-time); Takeda Pharmaceutical Company Limited.

- 713.20 **C.E. Beyer:** A. Employment/Salary (full or part-time); Promentis Pharmaceuticals. **B. Contracted Research/Research Grant** (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; NIMH Grants. **M.P. Neary:** A. Employment/Salary (full or part-time); Promentis. **N. Raddatz:** A. Employment/Salary (full or part-time); Marquette University. **D.C. Lobner:** A. Employment/Salary (full or part-time); Marquette. **J.R. Mantsch:** A. Employment/Salary (full or part-time); Marquette. **D.G. Lawton:** A. Employment/Salary (full or part-time); Promentis. **D.A. Baker:** A. Employment/Salary (full or part-time); Marquette.

- 713.21 **P.P. Kulkarni:** A. Employment/Salary (full or part-time); Northeastern University.

- 713.25 **P. Osten:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Certerra Inc. **F. Consulting Fees** (e.g., advisory boards); Certerra Inc.

- 713.28 **C. Morice:** A. Employment/Salary (full or part-time); Prestwick Chemical. **S. Ropp:** A. Employment/Salary (full or part-time); Prestwick Chemical. **S. Mayer:** A. Employment/Salary (full or part-time); Domain Therapeutics. **C. Cathary:** A. Employment/Salary (full or part-time); Prestwick Chemical. **S. Schann:** A. Employment/Salary (full or part-time); Domain Therapeutics.

- 714.03 **A.T. Wood:** A. Employment/Salary (full or part-time); ONO Pharma USA, Inc. **K. Mitsui:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **F. Suto:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **M. Kobayashi:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **M. Komeno:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **S. Katsumata:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd.

- 714.04 **G.W. Frankle:** 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 Pharmaceutical Co., Ltd. **R. Narendran:** 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 Pharmaceutical Co., Ltd. **S.N. Mason:** 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 Pharmaceutical Co., Ltd. **A.T. Wood:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **F. Suto:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **K. Mitsui:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **M. Kobayashi:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **T. Ohno:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **A. Yamauchi:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **M. Komeno:** A. Employment/Salary (full or part-time); ONO Pharmaceutical Co., Ltd. **S. Katsumata:** A. Employment/Salary (full or part-

time); ONO Pharmaceutical Co., Ltd.

- 714.07 **V. Benade:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **S. Daripelli:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **G. Bhyrapuneni:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **R. Ponnamaneni:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **A. Manoharan:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **V. Goura:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **R. Gadi:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **R. Nirogi:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India.

- 714.10 **L.J. Holsinger:** A. Employment/Salary (full or part-time); Virobay Inc. **E. Ownership Interest** (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Virobay Inc.

- 714.11 **G. Gobbi:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents on novel melatonin selective ligands and their use on pain. **S. Dominguez-Lopez:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent on melatonin ligands and pain.

- 714.13 **L. Wang:** A. Employment/Salary (full or part-time); Pfizer Inc. **S. Zellmer:** A. Employment/Salary (full or part-time); Pfizer Inc. **D. Printzenhoff:** A. Employment/Salary (full or part-time); Pfizer. **M. Chapman:** A. Employment/Salary (full or part-time); Pfizer Inc. **N. Castle:** A. Employment/Salary (full or part-time); Pfizer Inc.

- 714.14 **W.K. Schmidt:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); EicOsis, LLC. **K.M. Wagner:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); EicOsis, LLC. **B. Inceoglu:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); EicOsis, LLC. **B.D. Hammock:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); EicOsis, LLC.

- 714.15 **S. Daripelli:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **S.M. Irappanavar:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **G. Bhyrapuneni:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **V. Benade:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **G. Ayyanki:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **R. Ponnamaneni:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **A. Manoharan:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **R. Nirogi:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India.

- 715.07 **J.D. Dignam:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent under review and confidential. **R. Assaly:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patent under review and confidential.

- 716.05 **J.M. Cassidy:** A. Employment/Salary (full or part-time); Gillette Children's Specialty Healthcare. **D.C. Anderson:** A. Employment/Salary (full or part-time); Hennepin County Medical Center. **L. Snow:** A. Employment/Salary (full or part-time); Minneapolis VA Healthcare System.

- 716.14 **A. Machado:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent

holder, excluding diversified mutual funds); ATI, Enspire, Cardionomics. F. Consulting Fees (e.g., advisory boards); IntElect Medical, Functional Neurostimulation, Deep Brain Innovations.

- 716.16 **W. Castro:** A. Employment/Salary (full or part-time); Bromedicon. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Bromedicon.
- 716.18 **A. Machado:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cardionomics, Enspire, Functional Neuromodulation, Ati, Boston Scientific.
- 716.19 **N. Khodaparast:** A. Employment/Salary (full or part-time); Microtransponder Inc. **M.P. Kilgard*:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Microtransponder Inc. **R.L. Rennaker II*:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Vulintus Inc.
- 716.20 **N. Khodaparast:** A. Employment/Salary (full or part-time); Microtransponder Inc. **R. Casavant:** A. Employment/Salary (full or part-time); Microtransponder Inc. **R. Rennaker:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Vulintus Inc. **M.P. Kilgard:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Microtransponder Inc.
- 716.21 **N. Khodaparast:** A. Employment/Salary (full or part-time); MicroTransponder, Inc. **R. Rennaker:** A. Employment/Salary (full or part-time); Vulintus, Inc. **M. Kilgard:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MicroTransponder, Inc.
- 717.02 **Y. Uno:** Other; Toyota Motor Corporation Grant. **T. Kawano:** Other; Toyota Motor Corporation Grant. **N. Hattori:** Other; Toyota Motor Corporation Grant. **M. Hatakenaka:** Other; Toyota Motor Corporation Grant. **I. Miyai:** Other; Toyota Motor Corporation Grant. **K. Kitajo:** Other; Toyota Motor Corporation Grant.
- 717.04 **T. Kawano:** Other; Toyota Motor Corporation Grant. **N. Hattori:** Other; Toyota Motor Corporation Grant. **Y. Uno:** Other; Toyota Motor Corporation Grant. **K. Kitajo:** Other; Toyota Motor Corporation Grant. **M. Hatakenaka:** Other; Toyota Motor Corporation Grant. **H. Yagura:** Other; Toyota Motor Corporation Grant. **H. Fujimoto:** Other; Toyota Motor Corporation Grant. **T. Yosioka:** Other; Toyota Motor Corporation Grant. **M. Nagasako:** Other; Toyota Motor Corporation Grant. **H. Otomune:** Other; Toyota Motor Corporation Grant. **I. Miyai:** Other; Toyota Motor Corporation Grant.
- 717.06 **M. Schroeter:** 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; GlaxoSmithCline. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); Astellas Pharma, Bayer Healthcare, Biogen Idec, GlaxoSmithKline, Merck Serono, Pfizer, Roche, Sanofi Aventis, Talecris, Teva.
- 717.13 **A. Machado:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intelect medical, ATI, Enspire and Cardionomics. F. Consulting Fees (e.g., advisory boards); Intelect medical, Functional Neurostimulation, Deep Brain Innovations.
- 717.21 **A. Machado:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intelect Medical, ATI, Enspire and Cardionomics, Functional Neurostimulation, Deep Brain Innovations.
- 718.02 **D. De Kam:** A. Employment/Salary (full or part-time); Radboud University Medical Center.
- 718.03 **A.U. Turken:** A. Employment/Salary (full or part-time);

Veterans Affairs Northern California Health Care System.

- 718.10 **M. Nazarova:** A. Employment/Salary (full or part-time); Higher School of Economics, Department of Psychology, Centre for Cognition & Decision Making. **E. Blagovechtchenski:** A. Employment/Salary (full or part-time); HSE, Moscow.
- 722.03 **B. Ding:** 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/NIA Grant. **X. Zhu:** 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/NIA Grant. **R.D. Frisina:** 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/NIA Grant. **D. Frisina:** 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/NIA Grant. **J.P. Walton:** 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/NIA Grant.
- 722.08 **X. Zhu:** 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/NIA Grant. **B. Ding:** 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/NIA Grant. **J.P. Walton:** 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/NIA Grant. **R.D. Frisina:** 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/NIA Grant.
- 727.02 **J. Zhang:** A. Employment/Salary (full or part-time); AnaBios. **G. Page:** A. Employment/Salary (full or part-time); AnaBios. **A. Ghatti:** A. Employment/Salary (full or part-time); AnaBios.
- 727.08 **C. Rheume:** A. Employment/Salary (full or part-time); Allergan Inc. **M.S. Brown:** A. Employment/Salary (full or part-time); Allergan Inc. **K.R. Aoki:** A. Employment/Salary (full or part-time); Allergan Inc. **J. Francis:** A. Employment/Salary (full or part-time); Allergan Inc. **R.S. Broide:** A. Employment/Salary (full or part-time); Allergan Inc.
- 729.03 **D.C. Yeomans:** A. Employment/Salary (full or part-time); Stanford University. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Trigemina, Inc.
- 729.08 **S. Fukasawa:** A. Employment/Salary (full or part-time); TOYORESIN corporation. **S. Ide:** A. Employment/Salary (full or part-time); TOYORESIN corporation.
- 729.14 **K. Kilgore:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuros Medical, Inc. **C. McIntyre:** F. Consulting Fees (e.g., advisory boards); Boston Scientific Neuromodulation.
- 730.19 **R. Gujjar:** A. Employment/Salary (full or part-time); Organix, Inc. **A. Mahadevan:** A. Employment/Salary (full or part-time); Organix, Inc.
- 730.23 **J. Wang:** E. Ownership Interest (stock, stock options,

ABSTRACT NUMBER	STATEMENT	ABSTRACT NUMBER	STATEMENT
	royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent application.		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; NIDDK.
730.25	M. Jones: A. Employment/Salary (full or part-time); Neuroscience Technologies. M. Sumalla: A. Employment/Salary (full or part-time); Neuroscience Technologies. E. Garcia: A. Employment/Salary (full or part-time); Neuroscience Technologies. R. Sola: A. Employment/Salary (full or part-time); Neuroscience Technologies. J. Serra: A. Employment/Salary (full or part-time); Neuroscience Technologies.	736.09	M.O. Fraser: 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, Medtronic, Astellas. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Versi Consulting, LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lipella Pharmaceuticals. F. Consulting Fees (e.g., advisory boards); Amphora Medical.
731.04	N. Khadka: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; NIH Grant:5R01MH092926-04.	736.14	M.A. Vizzard: 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; NIDDK.
731.12	D. McDonnell: A. Employment/Salary (full or part-time); RIPPLE.	736.18	M. Klinger: A. Employment/Salary (full or part-time); Catamount Research & Development. R.L. Simpson: A. Employment/Salary (full or part-time); Catamount Research & Development. G.M. Herrera: A. Employment/Salary (full or part-time); Catamount Research & Development.
731.13	S.H. Scott: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-founder and Chief Scientific Officer of BKIN Technologies.	736.21	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.
731.14	S.H. Scott: Other; Cofounder and Chief Scientific Officer.	738.04	M. Ivannikov: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Revalesio Corporation. R.R. Llinas: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Revalesio Corporation.
732.09	V. Edgerton: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroRecovery Technologies Inc. D. Lu: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroRecovery Technologies Inc. Y. Gerasimenko: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroRecovery Technologies Inc.	738.06	F. Cardozo-Pelaez: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Grant from Revalesio Corp. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); RNS60 Provided by Revalesio Corp. L.M. Santana: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Grant from Revalesio Corp. I. Areiza: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Grant from Revalesio Corp.
732.22	R. Jeffrey-Gauthier: A. Employment/Salary (full or part-time); Université du Québec à Trois-Rivières. H. Leblond: A. Employment/Salary (full or part-time); Université du Québec à Trois-Rivières. 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. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Groupe de recherche sur la cognition, neurosciences, affect et comportement.	742.01	M. Furey: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Holds use patent for scopolamine. C. Zarate: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Holds use patent for ketamine.
733.05	A. Pascual-Leone: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Patents on real-time integration of transcranial magnetic stimulation (TMS) with electroencephalography (EEG) and magnetic resonance imaging (MRI). F. Consulting Fees (e.g., advisory boards); Dr. Pascual-Leone serves on the scientific advisory boards for Nexstim, Neuronix, Starlab Neuroscience, Neuroelectrics, and Neosync.	742.09	M. Tanaka: A. Employment/Salary (full or part-time); Doshisha University. U. Yamamoto: A. Employment/Salary (full or part-time); Doshisha University. T. Hiroyasu: A. Employment/Salary (full or part-time); Doshisha University.
734.03	S. Saavedra: 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 Pre-Doctoral Fellowship. C. da Costa: 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; FAPSEP Pre-Doctoral Fellowship.	743.04	P. Khorsand: A. Employment/Salary (full or part-time); Jefferies LLC.
736.04	X. Su: A. Employment/Salary (full or part-time); Medtronic. A. Nickles: A. Employment/Salary (full or part-time); Medtronic. D.E. Nelson: A. Employment/Salary (full or part-time); Medtronic.	744.06	M. Anwar: Other; TOYOTA, Japan. Y. Nakagawa: Other; TOYOTA, Japan. K. Kitajo: Other; TOYOTA, Japan.
736.07	C. Korstanje: A. Employment/Salary (full or part-time); Astellas Pharma Europe BV.	744.17	D.A. Sternberg: A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs. K. Katovich: A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock
736.08	M.A. Vizzard: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or		

- options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs. **J.L. Hardy:** A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs.
- M. Scanlon:** A. Employment/Salary (full or part-time); Lumos Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs.
- 745.11 **J.A. McGaughy:** A. Employment/Salary (full or part-time); University of New Hampshire.
- 745.13 **T.W. Robbins:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; research grants with GSK, Lilly and Lundbeck. F. Consulting Fees (e.g., advisory boards); TWR has consulted for GSK, Cambridge Cognition, Lilly, Lundbeck and Merck.
- 745.18 **M.F. Pagliusi:** A. Employment/Salary (full or part-time); FAPESP (Scholarship). C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); UNICAMP.
- 748.13 **H.E. Stevens:** 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; APIRE-Wyeth Research Fellowship.
- 750.19 **T.J. Bussey:** F. Consulting Fees (e.g., advisory boards); Campden Instruments, Ltd. **L.M. Saksida:** F. Consulting Fees (e.g., advisory boards); Campden Instruments, Ltd.
- 750.20 **L.M. Saksida:** F. Consulting Fees (e.g., advisory boards); Campden Instruments Ltd. Other; Synome Ltd. **T.J. Bussey:** F. Consulting Fees (e.g., advisory boards); Campden Instruments Ltd. Other; Synome Ltd.
- 750.21 **A.E. Horner:** A. Employment/Salary (full or part-time); Synome Ltd. **N.O. Afinowi:** A. Employment/Salary (full or part-time); Synome Ltd. **T.J. Bussey:** F. Consulting Fees (e.g., advisory boards); Campden Instruments Ltd. **L.M. Saksida:** F. Consulting Fees (e.g., advisory boards); Campden Instruments Ltd. **S.G. Grant, FRSE:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Synome Ltd. **M.V. Kopanitsa:** A. Employment/Salary (full or part-time); Synome Ltd.
- 750.22 **M. Hvostlef-Eide:** A. Employment/Salary (full or part-time); University of Cambridge. **C.A. Oomen:** A. Employment/Salary (full or part-time); Radboud University Medical Centre. **T.W. Robbins:** A. Employment/Salary (full or part-time); University of Cambridge. 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, Lundbeck, European Community's Seventh Framework Programme (FP7/2007-2013) for the Innovative Medicine Initiative under Grant Agreement n115008. F. Consulting Fees (e.g., advisory boards); Cambridge Cognition, Eli Lilly, Lundbeck, Teva, Shire Pharmaceuticals, Merck Sharp, Dohme, GSK Editorial: Springer Verlag. **L.M. Saksida:** A. Employment/Salary (full or part-time); University of Cambridge. 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; European Community's Seventh Framework Programme (FP7/2007-2013) for the Innovative Medicine Initiative under Grant Agreement n115008. F. Consulting Fees (e.g., advisory boards); Campden Instruments. **T.J. Bussey:** A. Employment/Salary (full or part-time); University of Cambridge. 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; European Community's Seventh Framework Programme (FP7/2007-2013) for the Innovative Medicine Initiative under Grant Agreement n115008. F. Consulting Fees (e.g., advisory boards); Campden Instruments.
- 751.13 **A.V. Goonawardena:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; F. Hoffmann – La Roche Ltd., Basel, Switzerland.
- 753.10 **S.N. Haber:** D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); Pfizer, Inc, Eli Lilly and Company, Medtronic, Inc.
- 754.03 **J. Jin:** A. Employment/Salary (full or part-time); Texas A&M University.
- 757.24 **K.D. Niswender:** 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; Novo Nordisk. **R.L. Cowan:** 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; Novo Nordisk.
- 758.07 **L.P. Mayer:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Senestech Inc. **C.A. Dyer:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Senestech Inc.
- 758.08 **L. Mayer:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); SenesTech, Inc. **C. Dyer:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); SenesTech, Inc.
- 759.03 **M. Magdesian:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); McGill University.
- 759.05 **S.R. Lockery:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NemaMatrix, LLC. **K.J. Robinson:** A. Employment/Salary (full or part-time); NemaMatrix. **W.M. Roberts:** A. Employment/Salary (full or part-time); NemaMatrix. **J.C. Weeks:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NemaMatrix.
- 759.07 **G.M. Belfort:** A. Employment/Salary (full or part-time); Sage Therapeutics. **R.S. Hammond:** A. Employment/Salary (full or part-time); Sage Therapeutics. **W.W. Muir:** 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; QTest Labs. **Y. Ueyama:** 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; QTest Labs. **S.J. Kanes:** A. Employment/Salary (full or part-time); Sage Therapeutics. **G.M. Botella:** A. Employment/Salary (full or part-time); Sage Therapeutics. **F.G. Salituro:** A. Employment/Salary (full or part-time); Sage Therapeutics. **A.J. Robichaud:** A. Employment/Salary (full or part-time); Sage Therapeutics. **J.J. Doherty:** A. Employment/Salary (full or part-time); Sage Therapeutics.
- 759.08 **J. Thenttu:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **G. Bhyrapuneni:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India. **D. Ajjala:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd., Hyderabad, India.

- R. Aleti:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd.,Hyderabad, India. **S. Sriakolapu:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd.,Hyderabad, India. **R. Nirogi:** A. Employment/Salary (full or part-time); Suven Life Sciences Ltd.,Hyderabad, India.
- 759.15 **R. Marchan:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); InSphero AG. **J.G. Hengstler:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); InSphero AG.
- 761 **K.C. Berridge:** A. Employment/Salary (full or part-time); University of Michigan. 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 only. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); NIH only.
- 762 **E.A. Mayer:** F. Consulting Fees (e.g., advisory boards); Danone.
- 762.02 **J. Cryan:** 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 in the Alimentary Pharmabiotic Centre where research is funded by Mead Johnson, Cremona, Suntory Wellness, Nutricia.
- 762.05 **K. Tillisch:** 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; Danone, Tsumura.
- 766.07 **T. Graven-Nielsen:** F. Consulting Fees (e.g., advisory boards); Nocitech, Denmark.
- 767.10 **J.W. Young:** A. Employment/Salary (full or part-time); University of California, San Diego. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Lundbeck, Omeros. F. Consulting Fees (e.g., advisory boards); Amgen. **M.A. Geyer:** A. Employment/Salary (full or part-time); University of California, San Diego. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Intracellular Therapeutics, Johnson & Johnson. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); San Diego Instruments. F. Consulting Fees (e.g., advisory boards); Abbott, Cerca, Dart Neuroscience, Merck, Omeros, Takeda, Teva.
- 769.06 **M.R. Hayden:** A. Employment/Salary (full or part-time); Teva Pharmaceuticals.
- 769.11 **H. Kordasiewicz:** A. Employment/Salary (full or part-time); ISIS Pharmaceuticals. **M. Østergaard:** A. Employment/Salary (full or part-time); ISIS Pharmaceuticals. **A.T. Watt:** A. Employment/Salary (full or part-time); ISIS Pharmaceuticals. **S.M. Freier:** A. Employment/Salary (full or part-time); ISIS Pharmaceuticals. **E.E. Swayze:** A. Employment/Salary (full or part-time); ISIS Pharmaceuticals. **P.P. Seth:** A. Employment/Salary (full or part-time); ISIS Pharmaceuticals. **C.F. Bennett:** A. Employment/Salary (full or part-time); ISIS Pharmaceuticals. **M.R. Hayden:** A. Employment/Salary (full or part-time); Teva Pharmaceuticals.
- 769.12 **H.S. Zhang:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **B. Zeitler:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **S. Froelich:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **Q. Yu:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **J. Pearl:** A. Employment/

- Salary (full or part-time); Sangamo BioSciences. **D.E. Paschon:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **J.C. Miller:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **A.E. Kudwa:** A. Employment/Salary (full or part-time); Psychogenics. **Y. Sedaghat:** A. Employment/Salary (full or part-time); Evotec AG. **D. Li:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **K. Marlen:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **D. Guschin:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **L. Zhang:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **M. Mendel:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **E.J. Rebar:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **F.D. Urnov:** A. Employment/Salary (full or part-time); Sangamo BioSciences. **V. Mack:** A. Employment/Salary (full or part-time); Evotec AG. **P.D. Gregory:** A. Employment/Salary (full or part-time); Sangamo BioSciences.
- 771.01 **S. Mayer:** A. Employment/Salary (full or part-time); Mount.
- 771.10 **I. Sharp:** A. Employment/Salary (full or part-time); Televisa Internacional.
- 777.08 **G.A. Wayman:** A. Employment/Salary (full or part-time); Washington State University.
- 779.01 **Y. Hashiguchi:** A. Employment/Salary (full or part-time); Kyoto University.
- 780.04 **T.K. Gandhi:** A. Employment/Salary (full or part-time); INSPIRE Faculty, Govt. of India.
- 781.02 **H. Yu:** A. Employment/Salary (full or part-time); Johnson and Johnson. **N. Harmel:** A. Employment/Salary (full or part-time); Johnson and Johnson, University of Düsseldorf. **T. Yamasaki:** A. Employment/Salary (full or part-time); Yale University. **S. Tomita:** A. Employment/Salary (full or part-time); Yale University. **D.S. Bredt:** A. Employment/Salary (full or part-time); Johnson and Johnson.
- 782.10 **A. Evers:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sage Therapeutics. F. Consulting Fees (e.g., advisory boards); Sage Therapeutics.
- 783.06 **A. Contestabile:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Provisional Application: US 61/919,195, 2013. **L. Cancedda:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Provisional Application: US 61/919,195, 2013.
- 783.08 **J. Kang:** A. Employment/Salary (full or part-time); Full. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); None. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); None.
- 784.05 **J.W. Brown:** A. Employment/Salary (full or part-time); AbbVie. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie. **S. Turner:** A. Employment/Salary (full or part-time); AbbVie. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie. **V. Nimmrich:** A. Employment/Salary (full or part-time); AbbVie. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie. **L.E. Rueter:** A. Employment/Salary (full or part-time); AbbVie. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie. **E. Van Der Kam:** A. Employment/Salary (full or part-time); AbbVie. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie. **M. Zhang:** A. Employment/Salary (full or part-time); AbbVie. E. Ownership Interest (stock, stock options, royalty, receipt

of intellectual property rights/patent holder, excluding diversified mutual funds); AbbVie.

- 784.08 **M.S. Brownfield:** Other; Immunostar.
- 785.11 **R.J. Weinberg:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pfizer. F. Consulting Fees (e.g., advisory boards); Aratome.
- 785.13 **D. Zecevic:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); RedShirtImaging LLC.
- 788.01 **R.C. Chang:** A. Employment/Salary (full or part-time); Laboratory of Neurodegenerative Diseases, Department of Anatomy, LKS Faculty of Medicine, The University of Hong Kong, Research Centre of Heart, Brain, Hormone and Healthy Aging, LKS Faculty of Medicine, The University of Hong Kong, State Key Laboratory of Brain and Cognitive Sciences, The University of Hong Kong.
- 788.06 **M. Usenovic:** A. Employment/Salary (full or part-time); Merck & Co. **S. Niroomand:** A. Employment/Salary (full or part-time); Merck & Co. **M. Cosden:** A. Employment/Salary (full or part-time); Merck & Co. **B. Voleti:** A. Employment/Salary (full or part-time); Merck & Co. **J.J. Renger:** A. Employment/Salary (full or part-time); Merck & Co. **S. Parmentier-Batteur:** A. Employment/Salary (full or part-time); Merck & Co.
- 788.17 **J.Q. Trojanowski:** 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; Collaborator and lecturer at Johnson & Johnson. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Support from Bristol Myers Squibb and GSK. F. Consulting Fees (e.g., advisory boards); Associate Editor of Alzheimer's & Dementia.
- 788.18 **S. Sankaranarayanan:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **L. Yang:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **N. Hoque:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **G. Cadelina:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **D. Barten:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **C.F. Albright:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb. **J.B. Toledo:** 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. **K. Brunden:** 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. **V.M.Y. Lee:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Bristol-Myers Squibb. **J.Q. Trojanowski:** 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. **M. Ahljanian:** A. Employment/Salary (full or part-time); Bristol-Myers Squibb.
- 788.21 **E. Schenker:** A. Employment/Salary (full or part-time); Institut de Recherches Servier. **G. Rollin-Jego:** A. Employment/Salary (full or part-time); IdR Servier. **F. Iop:** A. Employment/Salary (full or part-time); IdR Servier. **R. Billiras:** A. Employment/Salary (full or part-time); IdR Servier. **J. Rivet:** A. Employment/Salary (full or part-time); IdR Servier. **D. Favale:** A. Employment/Salary (full or part-time); IdR Servier. **V. Pasteau:** A. Employment/Salary (full or part-time); IdR Servier. **S. Dix:** A. Employment/Salary (full or part-time); Eli Lilly. **C. Czech:** A. Employment/Salary (full or part-time); Hoffmann-La Roche. **L. Ozmen:** A.

Employment/Salary (full or part-time); Hoffmann-La Roche. **J.C. Richardson:** A. Employment/Salary (full or part-time); GSK. **A. Gobert:** A. Employment/Salary (full or part-time); Institut de Recherches Servier.

- 788.22 **E.D. Roberson:** Other; Dr. Roberson has received royalties on intellectual property relating to this project.
- 789.19 **T. Bolmont:** A. Employment/Salary (full or part-time); Stemedica Int. **A. Lukashev:** A. Employment/Salary (full or part-time); Stemedica Int.
- 789.21 **J.M. Van Kampen:** A. Employment/Salary (full or part-time); Neurodyn Inc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Galantof Pharma. **D.G. Kay:** A. Employment/Salary (full or part-time); Neurodyn Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurodyn Inc. **A. Maelicke:** A. Employment/Salary (full or part-time); Neurodyn Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurodyn Inc.
- 790.06 **K. Hensley:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); XoNovo Inc.
- 790.14 **H. Cynis:** Other; Holger Cynis is a former employees of Probiobug and possess stock options in the company. **S. Schilling:** Other; Stephan Schilling is a present employee of Probiobug and possess stock options in the company. **H. Demuth:** Other; Hans-Ulrich Demuth is an employee of Probiobug and possess stock options in the company. **C.A. Lemere:** Other; Cynthia A. Lemere serves on the scientific advisory board of Probiobug.
- 790.15 **P. Gabbita:** A. Employment/Salary (full or part-time); P2D Bioscience. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); P2D Bioscience. **P. Eslami:** A. Employment/Salary (full or part-time); VA-GLAHS. **M. Johnson:** A. Employment/Salary (full or part-time); VA-GLAHS. **N. Kobritz:** A. Employment/Salary (full or part-time); VA-GLAHS. **F. Zemlan:** A. Employment/Salary (full or part-time); P2D Bioscience. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); P2D Bioscience. **S. Poteschkina:** A. Employment/Salary (full or part-time); VA-GLAHS. **S. Varadarajan:** A. Employment/Salary (full or part-time); Univ. of North Carolina -Wilmington. **J. Turman:** Other; Univ. of North Carolina. **M. Harris-White:** A. Employment/Salary (full or part-time); VA-GLAHS and David Geffen School of Medicine at University of California Los Angeles (UCLA).
- 791.10 **C. Ko:** A. Employment/Salary (full or part-time); AnaSpec, Inc. EGT Group. **O. Gurinovich:** A. Employment/Salary (full or part-time); AnaSpec, Inc. EGT Group. **F. Li:** A. Employment/Salary (full or part-time); AnaSpec, Inc. EGT Group. **R. Zhang:** A. Employment/Salary (full or part-time); AnaSpec, Inc. EGT Group. **J. Zhong:** A. Employment/Salary (full or part-time); AnaSpec, Inc. EGT Group. **V. Rakhmanova:** A. Employment/Salary (full or part-time); AnaSpec, Inc. EGT Group.
- 791.17 **N. Kemmerling:** A. Employment/Salary (full or part-time); Full time. **N. Hersch:** A. Employment/Salary (full or part-time); Full time. **B. Hoffmann:** A. Employment/Salary (full or part-time); Full time. **K. Glebov:** A. Employment/Salary (full or part-time); Full time. **B.D. Strooper:** A. Employment/Salary (full or part-time); Full time. **H. Neumann:** A. Employment/Salary (full or part-time); Full time. **J. Walter:** A. Employment/Salary (full or part-time); Full time.
- 791.19 **E. Gutierrez:** A. Employment/Salary (full or part-time); Full time. **D. Lütjohann:** A. Employment/Salary (full or part-time); Full time. **L. Kürschner:** A. Employment/Salary (full or part-time); Full time. **C. Thiele:** A. Employment/Salary (full or part-time); Full time. **J. Walter:** A. Employment/Salary (full or part-time); Full time.
- 791.29 **T. Deeb:** A. Employment/Salary (full or part-time); Tufts - AstraZeneca Lab for Translational Research. **S.J. Moss:** F.

Consulting Fees (e.g., advisory boards); Tufts-AstraZeneca Lab for Translational Research.

- 791.30 **S.A. Lipton:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); S.A.L. is the named inventor on worldwide patents for memantine (Namenda®) for the treatment of neurodegenerative diseases. Following Harvard University guidelines, he participates in a royalty sharin.
- 792.14 **G. Farmer:** A. Employment/Salary (full or part-time); Cortice Biosciences. **L. Gan:** 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; Cortice Biosciences. **F. Consulting Fees** (e.g., advisory boards); Cortice Biosciences. **A. Boxer:** 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; Cortice Biosciences. **F. Consulting Fees** (e.g., advisory boards); Cortice Biosciences. **M. Shamloo:** 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; Cortice Biosciences, University of California, San Francisco. **F. Consulting Fees** (e.g., advisory boards); Cortice Biosciences.
- 794.15 **H. Kwon:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; NRF of Korea.
- 794.25 **Z. Feng:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Employee of Eurofins. **J. Nuckolls:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Employee of SAGE Labs. **A. McCoy:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Employee of SAGE Labs. **J. Bode:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Employee of Eurofins.
- 795.07 **S. Dijkstra:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; CHDI Foundation. **R. van de Bospoort:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; CHDI Foundation. **S. Lachize:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; CHDI Foundation. **S. Fratantoni:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; CHDI Foundation. **J. Veenman:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; CHDI Foundation. **N. van den Berg:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; CHDI Foundation. **G. McAllister:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or

- consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; CHDI Foundation. **D.F. Fischer:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; CHDI Foundation.
- 795.16 **M.R. Hayden:** A. Employment/Salary (full or part-time); Teva Pharmaceuticals.
- 796.06 **S. Doshi:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Fibrogen, Inc.
- 796.15 **R. Robitaille:** A. Employment/Salary (full or part-time); Université de Montréal.
- 796.21 **B. Ikiz:** A. Employment/Salary (full or part-time); Regeneron. **S.D. Croll:** A. Employment/Salary (full or part-time); Regeneron. **A.J. Murphy:** A. Employment/Salary (full or part-time); Regeneron. **L.E. Macdonald:** A. Employment/Salary (full or part-time); Regeneron. **M.L. Lacroix-fralish:** A. Employment/Salary (full or part-time); Regeneron.
- 797.03 **Y. Imaizumi:** A. Employment/Salary (full or part-time); Eisai Co., Ltd. **H. Ochiai:** A. Employment/Salary (full or part-time); Eisai Co., Ltd. **K. Yamazaki:** A. Employment/Salary (full or part-time); Eisai Co., Ltd. **K. Sagane:** A. Employment/Salary (full or part-time); Eisai Co., Ltd. **M. Ito:** A. Employment/Salary (full or part-time); Eisai Co., Ltd.
- 797.08 **P. Dickson:** 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; BioMarin, Shire. **C. Other Research Support** (receipt of drugs, supplies, equipment or other in-kind support); BioMarin, Genzyme. **J.M. Provenzale:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Bayer, GE Health Systems. **F. Consulting Fees** (e.g., advisory boards); Armagen, Bayer, Biomedical systems. **I. Nestrasil:** 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. **E.G. Shapiro:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); BioMarin, Genzyme. **N. Ellinwood:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); BioMarin, Genzyme.
- 797.27 **I. Basaldua:** Other; UMBC.
- 798.13 **A. Vyshedskiy:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ImagiRation LLC. **R. Dunn:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ImagiRation LLC.
- 799.08 **C. Shaw:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Dwoskin Family Foundation (DFF), Kaitlyn Fox Foundation, Luther Allyn Shourds Dean estate. **E. Ownership Interest** (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neurodyn Corp. Inc.
- 800.02 **S. Shibuta:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); receipt of a drug.
- 800.11 **N. Kuzmin-Nichols:** A. Employment/Salary (full or part-time); President & COO at Saneron CCEL Therapeutics, Inc. **C. Sanberg:** A. Employment/Salary (full or part-time); Sr. VP of R&D, Saneron CCEL Therapeutics, Inc. **J. Chen:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; consultant to Saneron CCEL Therapeutics, Inc.

ABSTRACT NUMBER	STATEMENT
804.05	R.D. Skinner: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent pending. W.C. Culp: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent pending.
804.16	R. Liu: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); intellectual property rights.
805.05	A.E. Willing: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Saneron CCEL Therapeutics, Inc. S. Garbuzova-Davis: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Saneron CCEL Therapeutics, Inc. P.R. Sanberg: A. Employment/Salary (full or part-time); Saneron CCEL Therapeutics, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Saneron CCEL Therapeutics, Inc.
806.06	H. Leffler: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock Options. U. Nilsson: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock Options.
807.13	P. Acton: A. Employment/Salary (full or part-time); Janssen R&D LLC. C. Cotto: A. Employment/Salary (full or part-time); Janssen R&D. W. Eckert: A. Employment/Salary (full or part-time); Janssen R&D. J.Y. Ma: A. Employment/Salary (full or part-time); Janssen R&D. B. Lord: A. Employment/Salary (full or part-time); Janssen R&D. P. Bonaventure: A. Employment/Salary (full or part-time); Janssen R&D. A. Wickenden: A. Employment/Salary (full or part-time); Janssen R&D. P. King: A. Employment/Salary (full or part-time); Janssen R&D. B. Savall: A. Employment/Salary (full or part-time); Janssen R&D. N. Carruthers: A. Employment/Salary (full or part-time); Janssen R&D. M. Letavic: A. Employment/Salary (full or part-time); Janssen R&D. T. Lovenberg: A. Employment/Salary (full or part-time); Janssen R&D. A. Bhattacharya: A. Employment/Salary (full or part-time); Janssen Research & Development LLC.
807.25	S. Dessain: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Owns stock in Immunome, which has licensed the human monoclonal antibody cloning methodology. D.R. Lynch: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Receives royalties from Euroimmun for anti-NMDA receptor antibody testing.
808.01	G. Sanacora: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; grant support from AstraZeneca, Bristol-Myers Squibb, Merck & Co., Roche, and Sepracor Inc. F. Consulting Fees (e.g., advisory boards); consulting fees form Abbott Labs, AstraZeneca, Bristol-Myers Squibb, Evotec, Eli Lilly & Co., Johnson & Johnson, Novartis, Roche, and Sepracor Inc.
808.19	S.J. Russo: 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.
808.24	D.A. Lewis: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Bristol-Myers Squibb,

ABSTRACT NUMBER	STATEMENT
	Pfizer. F. Consulting Fees (e.g., advisory boards); Autifony, Bristol-Myers Squibb, Concert Pharmaceuticals, Sunovion.
809.20	P. Tao: 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; Pao-Pao Yang.
810.04	M. Cole: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); La Jolla Alcohol Research, Inc.
811.24	D.C. Mash: Other; NIH Grant DA033684. S.P. Garamszegi: Other; NIH Grant DA033684. G. Turecki: Other; NIH Grant DA033684.
811.28	C.V. Chiamulera: A. Employment/Salary (full or part-time); Univ of Verona. M. Venniro: A. Employment/Salary (full or part-time); Univ of Verona. A. Mutti: 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; Univ of Verona. M. Di chio: A. Employment/Salary (full or part-time); Univ of Verona. G. Fumagalli: A. Employment/Salary (full or part-time); Univ of Verona. D.T. Yew: A. Employment/Salary (full or part-time); The Chinese University of Hong Kong.
813.08	V. Risbrough: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Johnson and Johnson, Omeros.
813.18	P. Galante: 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; CNPq, FAPDF, FINATEC, CAPES, DPP/UnB. J.C. Goncalves: 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; CNPq, FAPDF, FINATEC, CAPES, DPP/UnB. G.A.A. Campos: 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; CNPq, FAPDF, FINATEC, CAPES, DPP/UnB. R.B.M. Godinho: 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; CNPq, FAPDF, FINATEC, CAPES, DPP/UnB. E.F. 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; CNPq, FAPDF, FINATEC, CAPES, DPP/UnB. M.R. Mortari: 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; CNPq, FAPDF, FINATEC, CAPES, DPP/UnB.
821.05	C.J. Duffy: A. Employment/Salary (full or part-time); Cerebral Assessment Systems.
821.06	C.J. Duffy: A. Employment/Salary (full or part-time); Cerebral Assessment Systems, Inc.
821.08	C.J. Duffy: A. Employment/Salary (full or part-time); Cerebral Assessment Systems Inc.
826.05	M.L. Oshinsky: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI

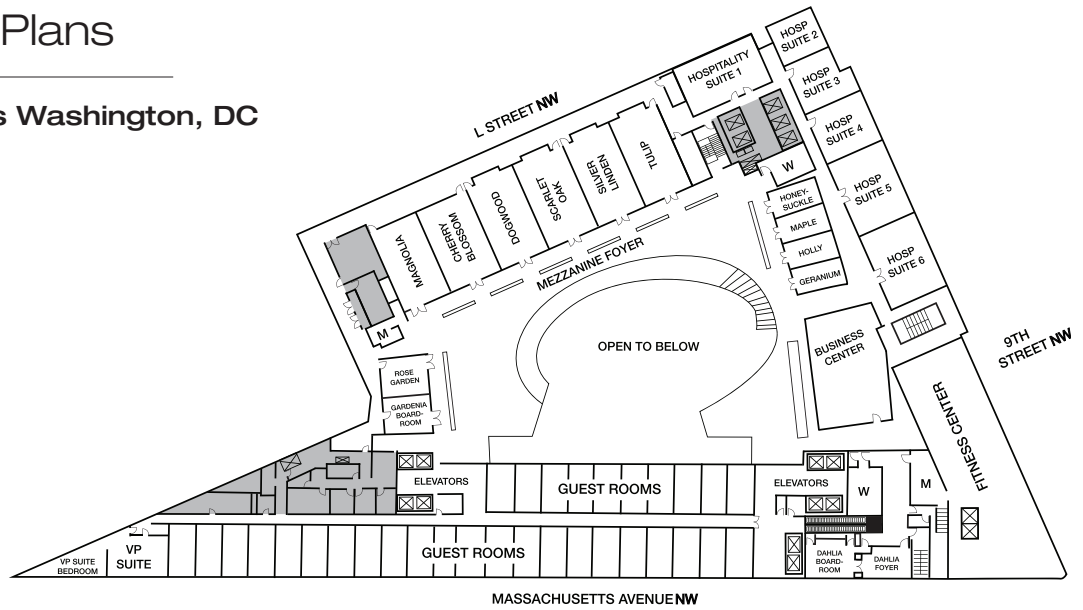
ABSTRACT NUMBER	STATEMENT	ABSTRACT NUMBER	STATEMENT
	for a drug study, report that research relationship even if those funds come to an institution; St. Jude Medical Inc., Medtronic Inc., Electrocore LLC.		Inc.
831.12	W. Wright: B. Contracted Research/Research Grant (principal investigator for a drug 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; Department of Defense.	840.02	K. Kerlan: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. F. Farzin: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. D.A. Sternberg: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. K. Katovich: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. N. Ng: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. C. Simone: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. A. Kaluszka: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. J.L. Hardy: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. M. Scanlon: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc.
832.13	C.F. Ferris: Other; Animals Imaging Research.		
835.07	J.L. Evenden: A. Employment/Salary (full or part-time); WiltonLogic LLC. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); WiltonLogic LLC.	840.09	J.W. Ashford: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); MemTrax, LLC owned by family member.
835.12	J.E. Williams: A. Employment/Salary (full or part-time); Eastern Illinois University.	842.14	K. Yamada: A. Employment/Salary (full or part-time); University of Tsukuba. Y. Ichitani: A. Employment/Salary (full or part-time); University of Tsukuba.
835.21	U. Yamamoto: A. Employment/Salary (full or part-time); Doshisha University. M. Miki: A. Employment/Salary (full or part-time); Doshisha University. T. Hiroyasu: A. Employment/Salary (full or part-time); Doshisha University.	844.06	S.J. Hoffman: A. Employment/Salary (full or part-time); Gray Matter Research.
837.05	M.M. Vaghi: A. Employment/Salary (full or part-time); Pinsent Darwin Studentship in Mental Pathology, Cambridge Home and European Scholarship Scheme. A. Hampshire: A. Employment/Salary (full or part-time); European Research Council (ERC). Other; Cambridge Brain Sciences Inc. N.A. Fineberg: Other; Transcept, ECNP, BAP, International Society for Addiction, Servier. B.J. Sahakian: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; MRC, Wellcome Trust, Janssen/J&J. F. Consulting Fees (e.g., advisory boards); Lundbeck, Servier, Cambridge Cognition, PAION (previously CeNe5). S.R. Chamberlain: F. Consulting Fees (e.g., advisory boards); Cambridge Cognition. 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 Educational talks, Merck, Sharpe and Dohme, Johnson and Johnson Editorial honoraria, Springer-Verlag, Elsevier BJS Cambridge Cognition, Lundbeck, Servier Research grant Janssen/Johnson and Johnson. F. Consulting Fees (e.g., advisory boards); Cambridge Cognition, E. Lilly, Lundbeck, Tev, Shire, Chempartners.	844.18	D. Salter: A. Employment/Salary (full or part-time); Nutrilite/Amway. M.A. Murray: A. Employment/Salary (full or part-time); Nutrilite/Amway. D. Fast: A. Employment/Salary (full or part-time); Nutrilite/Amway. A. Rajgopal: A. Employment/Salary (full or part-time); Nutrilite/Amway. K. Juegelt: A. Employment/Salary (full or part-time); NeuroProof GmbH. O.H.U. Schröder: A. Employment/Salary (full or part-time); NeuroProof GmbH. B.M. Bader: A. Employment/Salary (full or part-time); NeuroProof GmbH. A. Voss: A. Employment/Salary (full or part-time); NeuroProof GmbH.
837.14	S.C. Bunce: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); fNIR Devices LLC.	844.26	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.
838.06	N. Srinivasan: A. Employment/Salary (full or part-time); University of Allahabad.	845.21	J.S. Rhodes: 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.
838.14	B. Katz: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc.	846.20	G.P.K. Reddy: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Emory University. E.C. Garnier-Amblard: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Emory University. G. Fernandez-Cuervo: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual
838.17	C. Simone: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. N.F. Ng: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. F. Farzin: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. J.L. Hardy: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs, Inc. M.D. Scanlon: A. Employment/Salary (full or part-time); Lumos Labs, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Lumos Labs,		

- funds); Emory University. **L.S. Liebeskind**: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Emory University, NeurOp Inc. **S.F. Traynelis**: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Emory University, NeurOp Inc. F. Consulting Fees (e.g., advisory boards); NeurOp Inc.
- 847.08 **J.R. Calabrese**: Other; Dainippon Sumitomo Pharma, Sunovion. **D.E. Kemp**: Other; Sunovion.
- 847.17 **L.M. Saksida**: Other; Campden Instruments Ltd. **T.J. Bussey**: Other; Campden Instruments Ltd.
- 847.19 **A. Sahay**: F. Consulting Fees (e.g., advisory boards); Consultant to PsyBrain LLC.
- 849.06 **C. Minami**: A. Employment/Salary (full or part-time); naya clinic. **T. Shimizu**: A. Employment/Salary (full or part-time); Kyoto university. **S. Momma**: A. Employment/Salary (full or part-time); Kyoto university. **T. Mikami**: A. Employment/Salary (full or part-time); Biotex Research Laboratory. **A. Mitani**: A. Employment/Salary (full or part-time); kyoto university.
- 850.04 **A.I. Geller**: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); equity in Alkermes Inc.
- 850.13 **M.B. Bouchard**: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); We have an issued patent on this technology and are currently pursuing licensing. **E.M.C. Hillman**: E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); We have an issued patent on this technology and are currently pursuing licensing.
- 850.21 **J. Connelly**: A. Employment/Salary (full or part-time); ApoPharma. **B.R. Conway**: C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); ApoPharma.
- 852.12 **S. Kozawa**: A. Employment/Salary (full or part-time); Advanced Telecommunications Research Institute International.
- 852.13 **F. Rothganger**: A. Employment/Salary (full or part-time); Sandia National Laboratories. Other; University of Illinois, Urbana-Champaign.
- 854.16 **P.S. Pennefather**: Other; The author is also president of gDial Inc that provides complete record services. **W. Suhanic**: Other; The author is CEO of gDial Inc.
- 854.26 **M. Jog**: B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution; Grant: Merz Pharm.
- 854.27 **R.S. Kalmar**: A. Employment/Salary (full or part-time); Misfit Wearables. **M. Diamond**: A. Employment/Salary (full or part-time); Misfit Wearables. **S. Diamond**: A. Employment/Salary (full or part-time); Misfit Wearables. **S. Iyengar**: A. Employment/Salary (full or part-time); Misfit Wearables.

Hotel Floor Plans

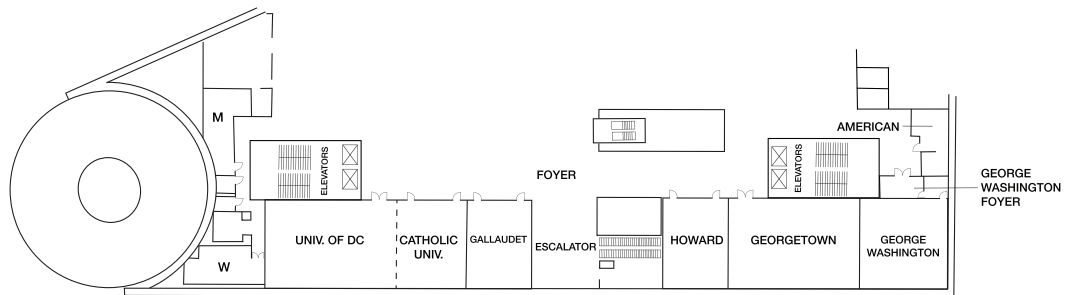
Marriott Marquis Washington, DC

Mezzanine Level



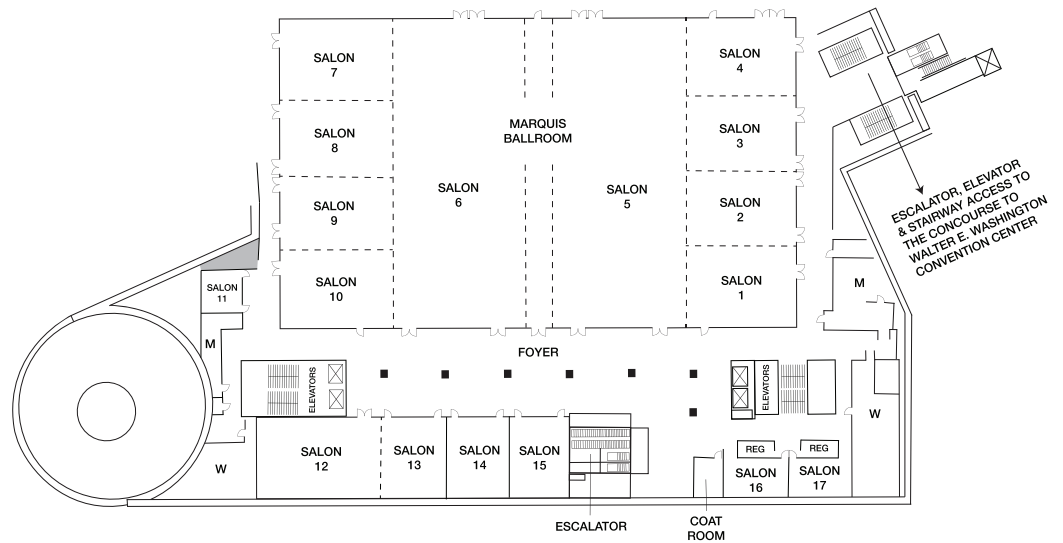
Marriott Marquis Washington, DC

Meeting Level 1



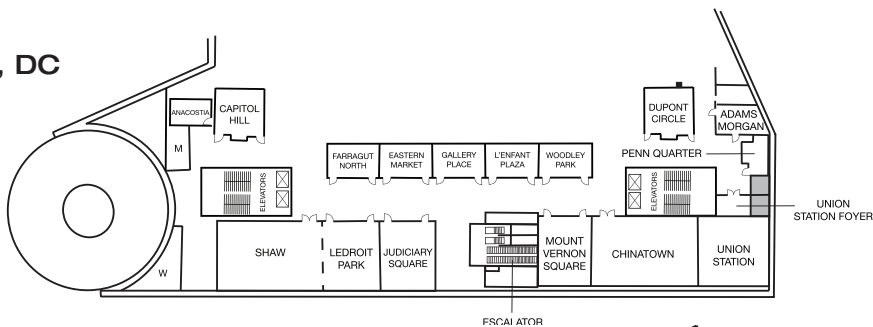
Marriott Marquis Washington, DC

Meeting Level 2

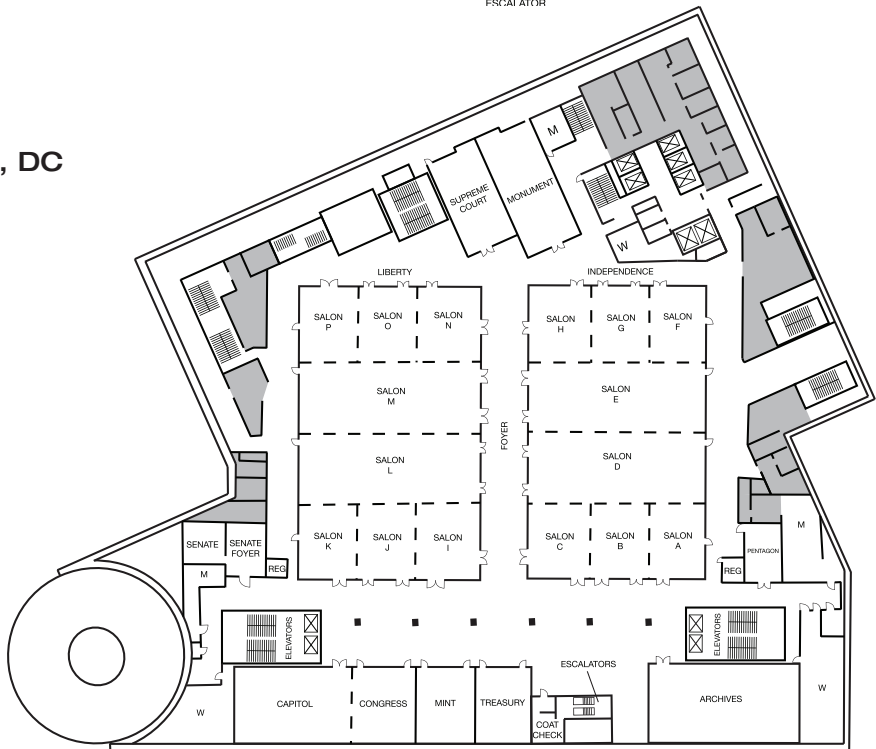


Hotel Floor Plans

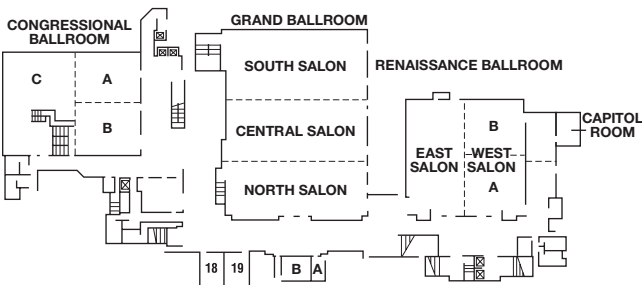
Marriott Marquis Washington, DC
Meeting Level 3



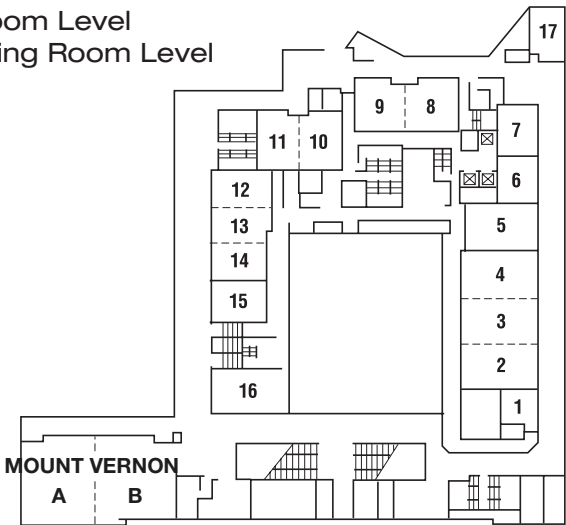
Marriott Marquis Washington, DC
Meeting Level 4



Renaissance Washington, DC
Downtown Hotel
Ballroom Level

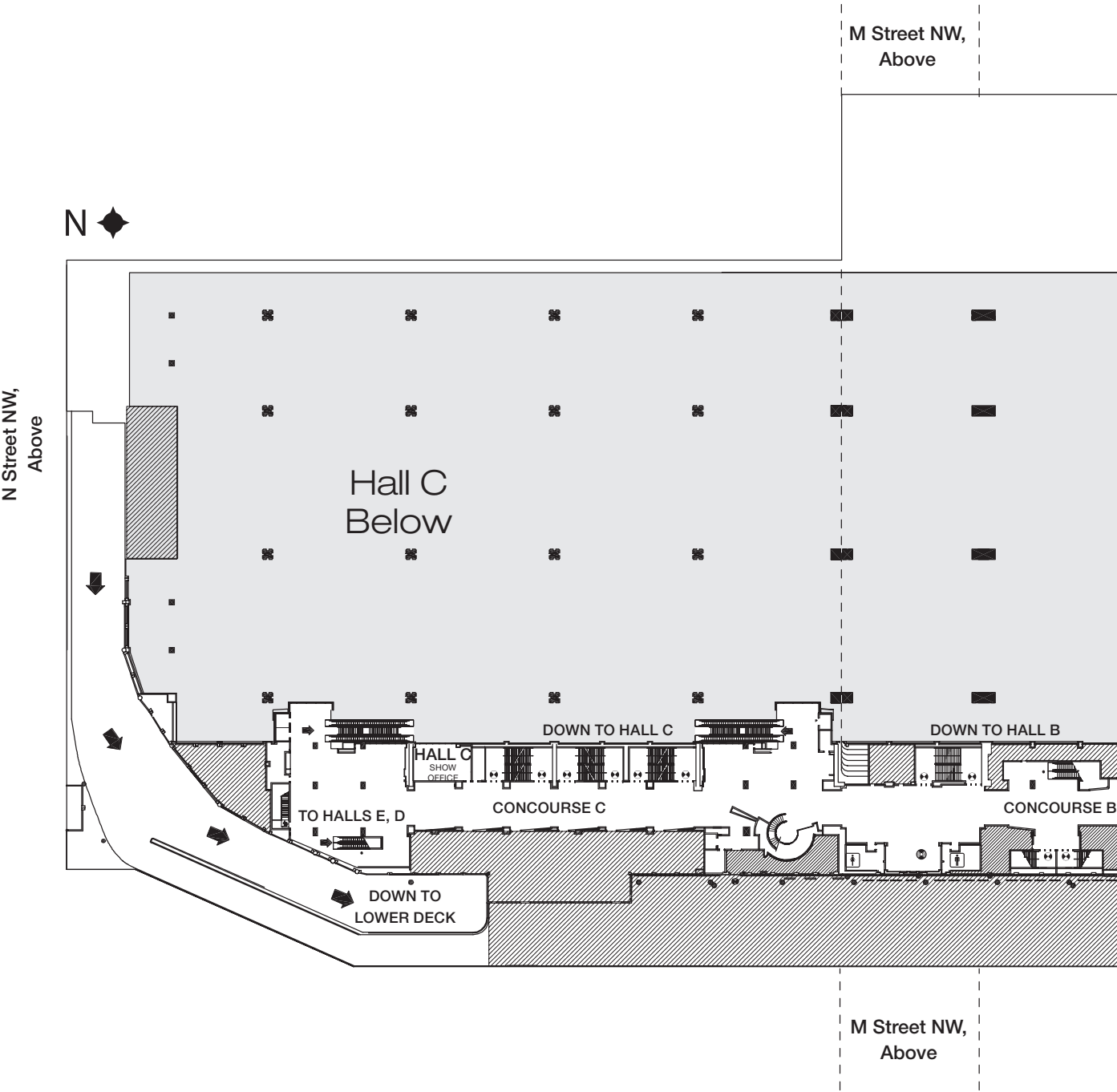


Renaissance Washington, DC
Downtown Hotel
Ballroom Level
Meeting Room Level



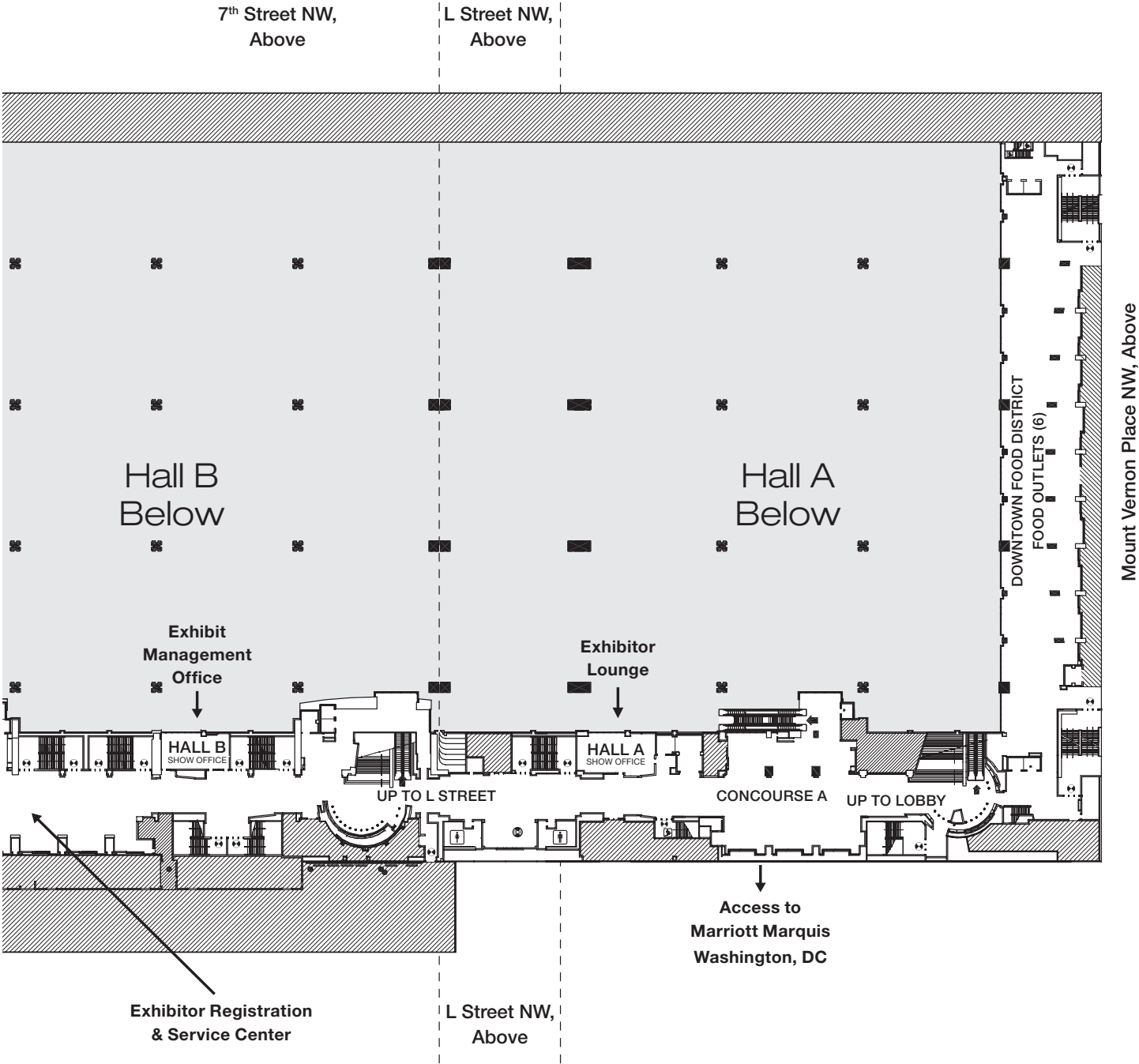
Convention Center Floor Plans

Concourse Level
Access to Exhibit Halls A-C
Show Offices A-C



Convention Center Floor Plans

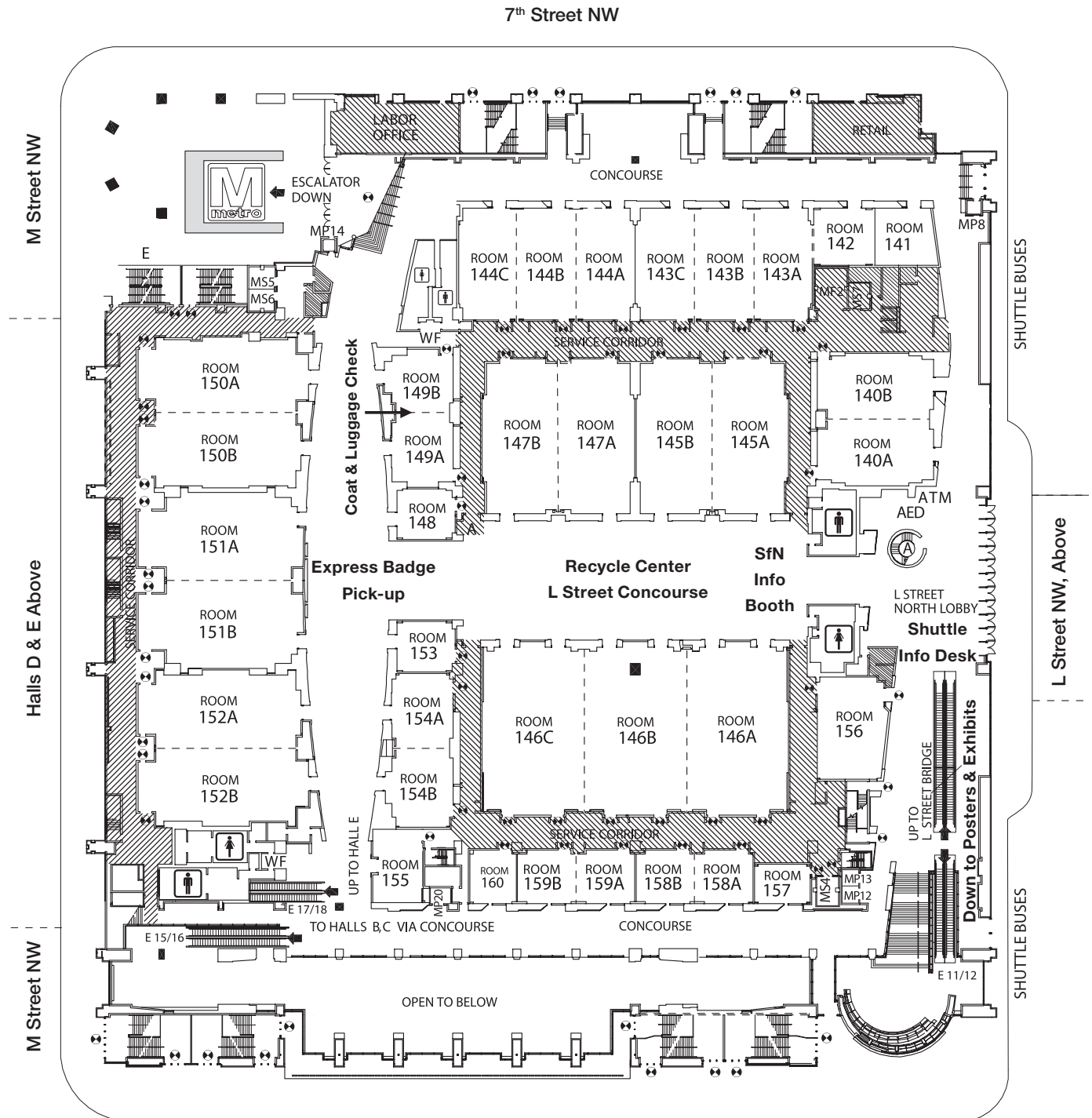
Concourse Level
Access to Exhibit Halls A-C
Show Offices A-C



Convention Center Floor Plans

Lobby Level/Level 1

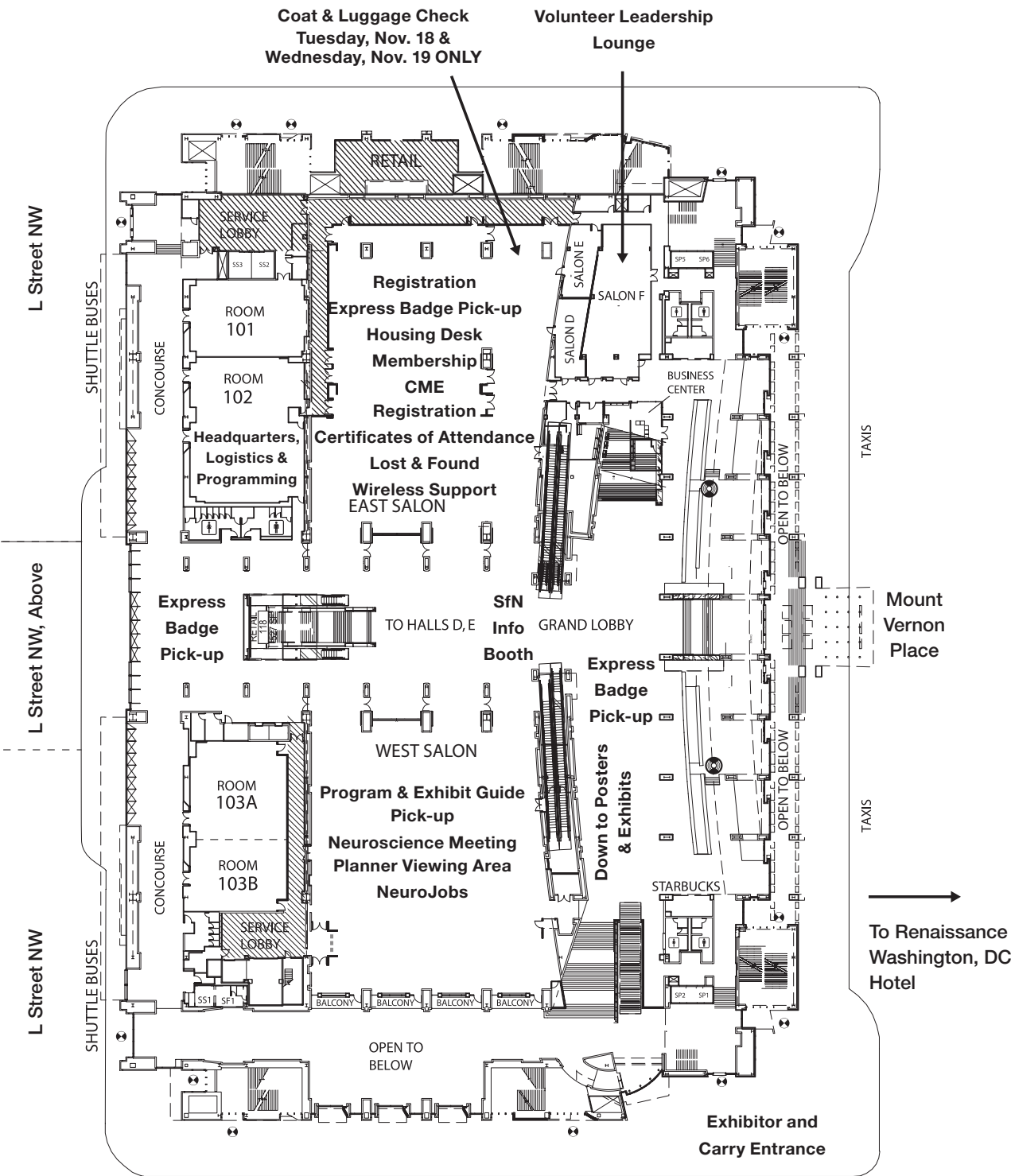
Meeting Rooms 101-103 & 150-160

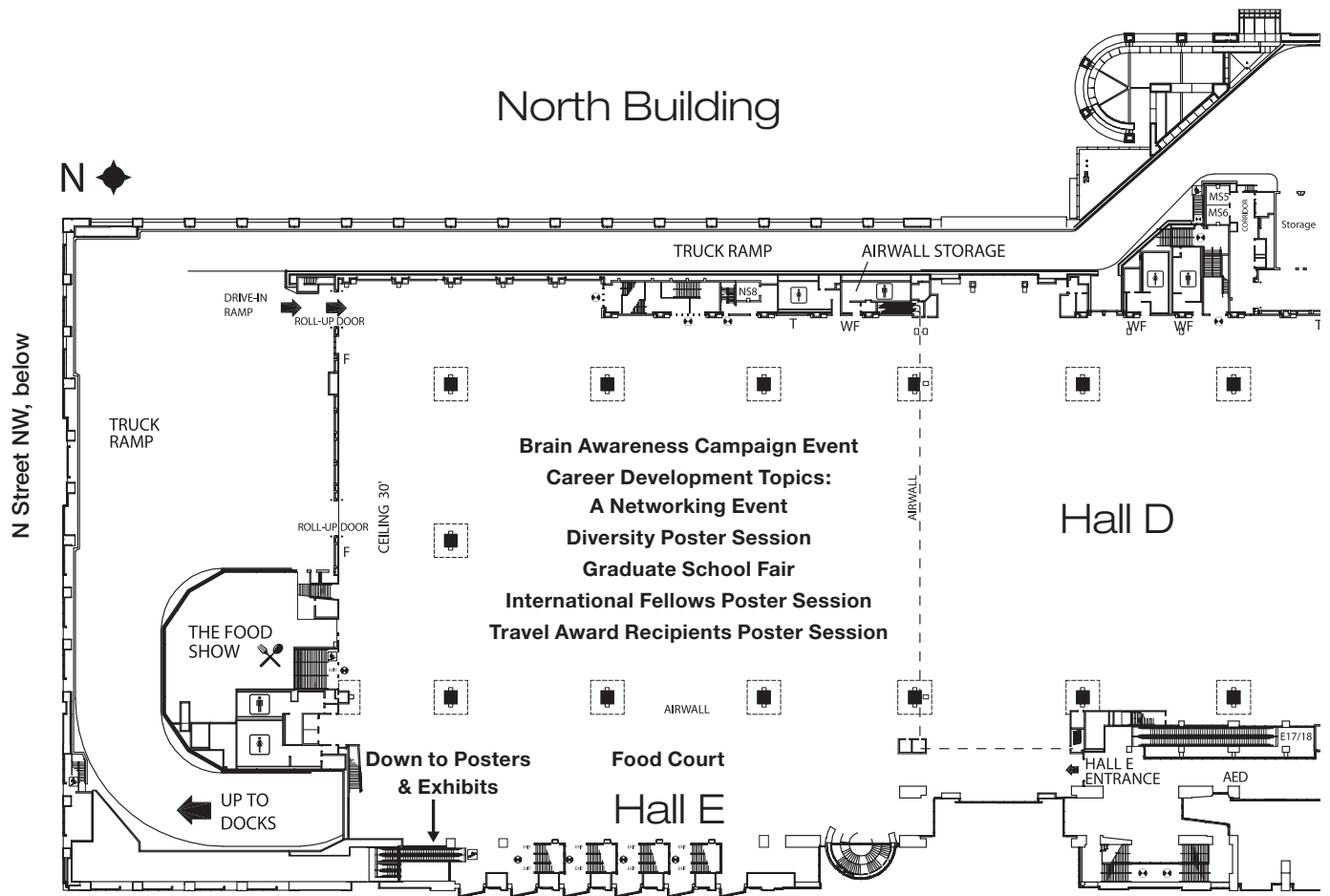


Convention Center Floor Plans

Lobby Level/Level 1

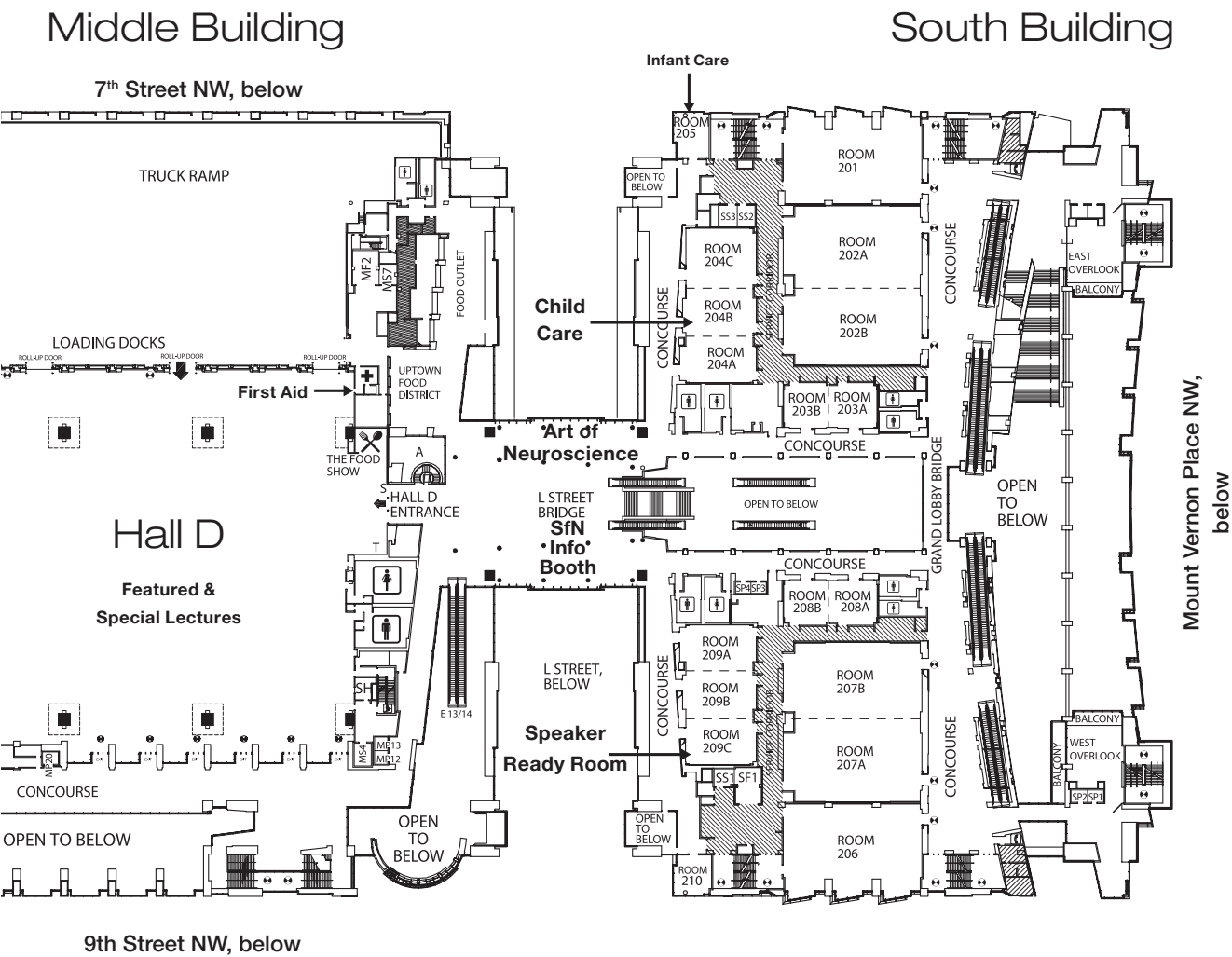
Meeting Rooms 101-103 & 150-160



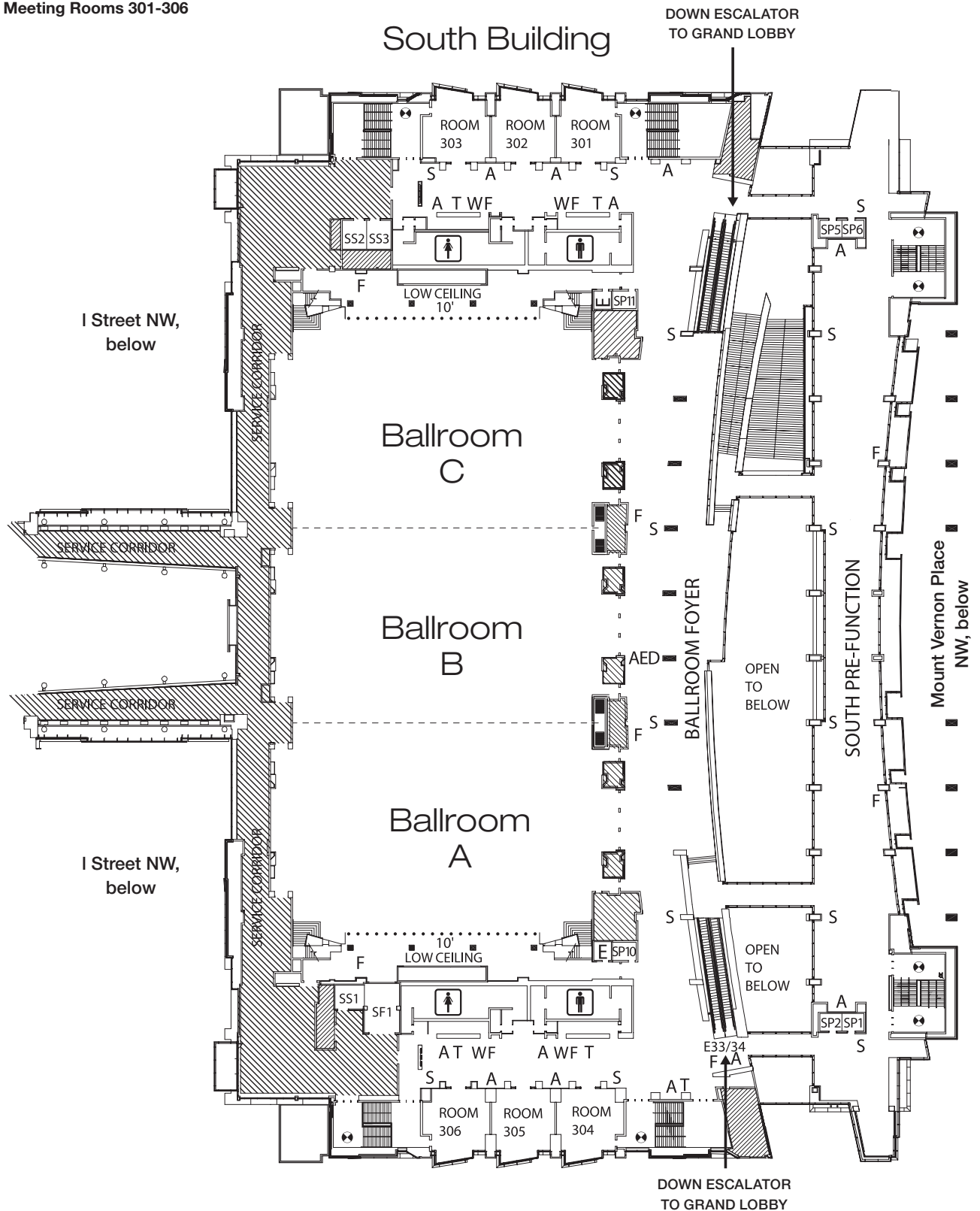


Convention Center Floor Plans

Level 2
Halls D & E
Meeting Rooms 201-210



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
- +

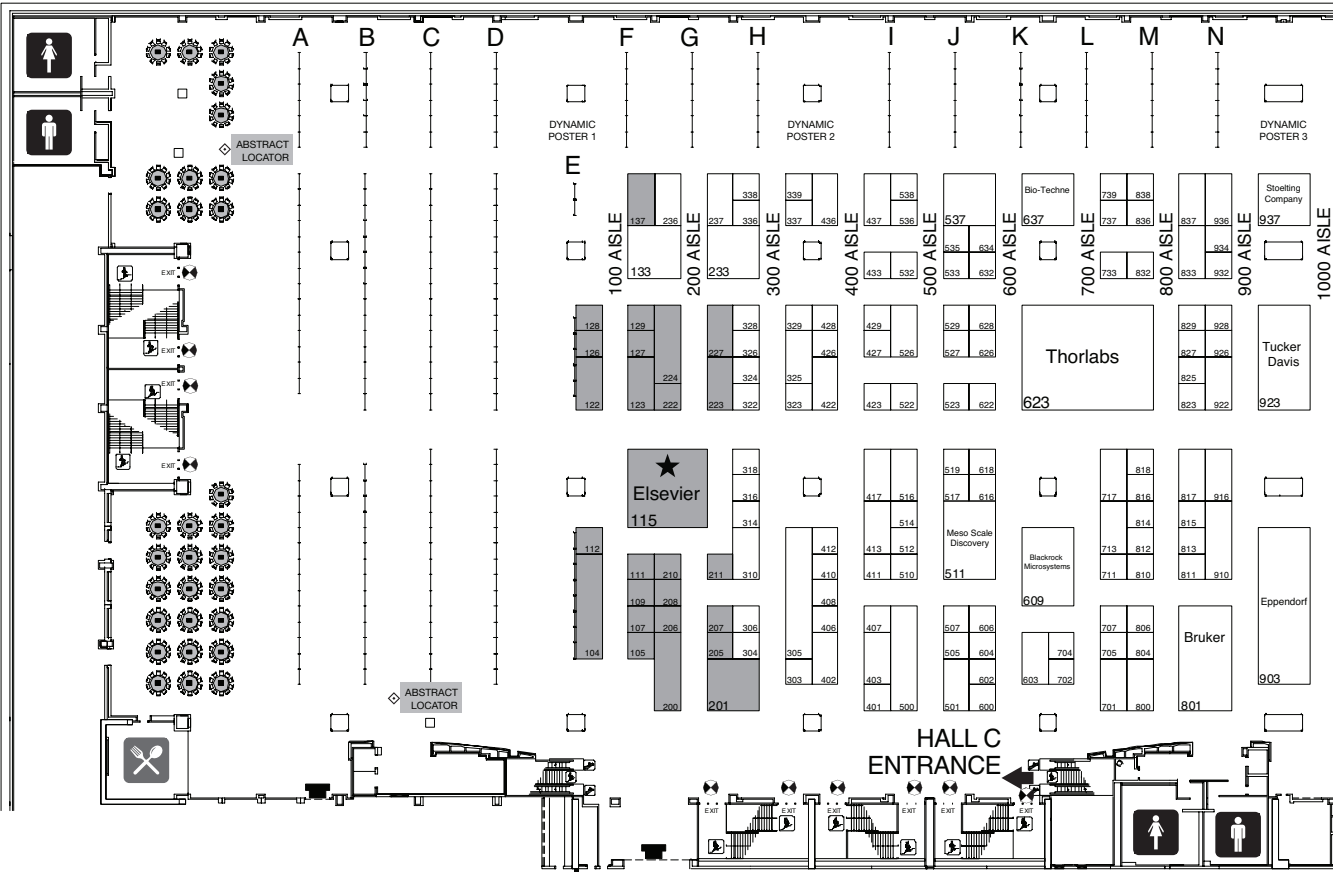
 First Aid Station
- Seating Area
- ✕

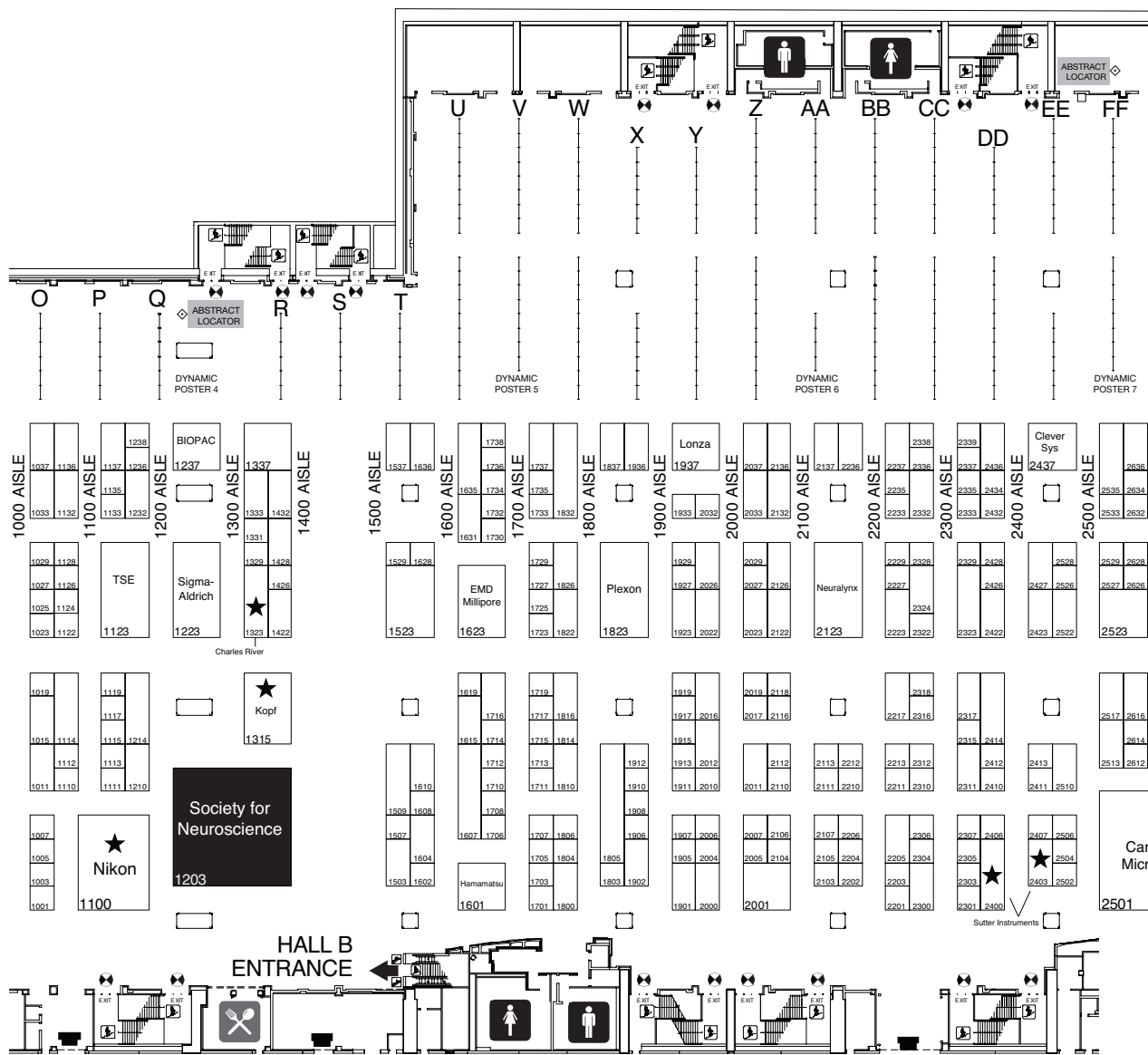
 Concession Areas
- ♂ ♀

 Restrooms
- ⬮

 Emergency Exit

N Street, above





- Institutions
- Publishers
- Nonprofits
- ★ Sustaining Associate Members

-  Abstract Locators
-  SfN Booth
-  First Aid Station
-  Seating Area

-  Concession Areas
-  Restrooms
-  Emergency Exit

The floor plan of Hall A is a rectangular grid of booths. The top edge is labeled with letters from FF to VV in pairs (FF, GG, HH, II, JJ, KK, LL, MM, NN, OO, PP, QQ, RR, SS, TT, UU, VV). The bottom edge features a 'HALL A ENTRANCE' with an arrow pointing left. The left side of the plan shows a series of vertical aisles, with booth numbers ranging from 2600 to 3500. The right side of the plan shows a series of vertical aisles, with booth numbers ranging from 3500 to 3600. The plan includes several restrooms (indicated by male and female symbols) and service areas labeled 'DYNAMIC POSTER 8', 'DYNAMIC POSTER 9', and 'DYNAMIC POSTER 10'. There are also 'ABSTRACT LOCATOR' signs and a 'HALL A ENTRANCE' sign. Booths are arranged in rows, with some labeled with company names like 'Olympus', 'Harvard Apparatus, a div. of Harvard Bioscience', 'Leica Microsystems', and 'National Institutes of Health'. The plan also shows a 'HALL A ENTRANCE' at the bottom and a 'HALL A ENTRANCE' at the top right.

Mount Vernon Place, above

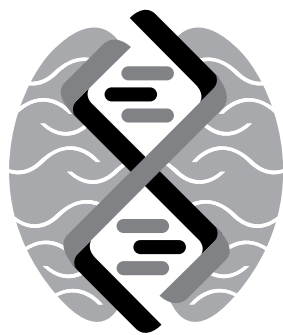
Notes

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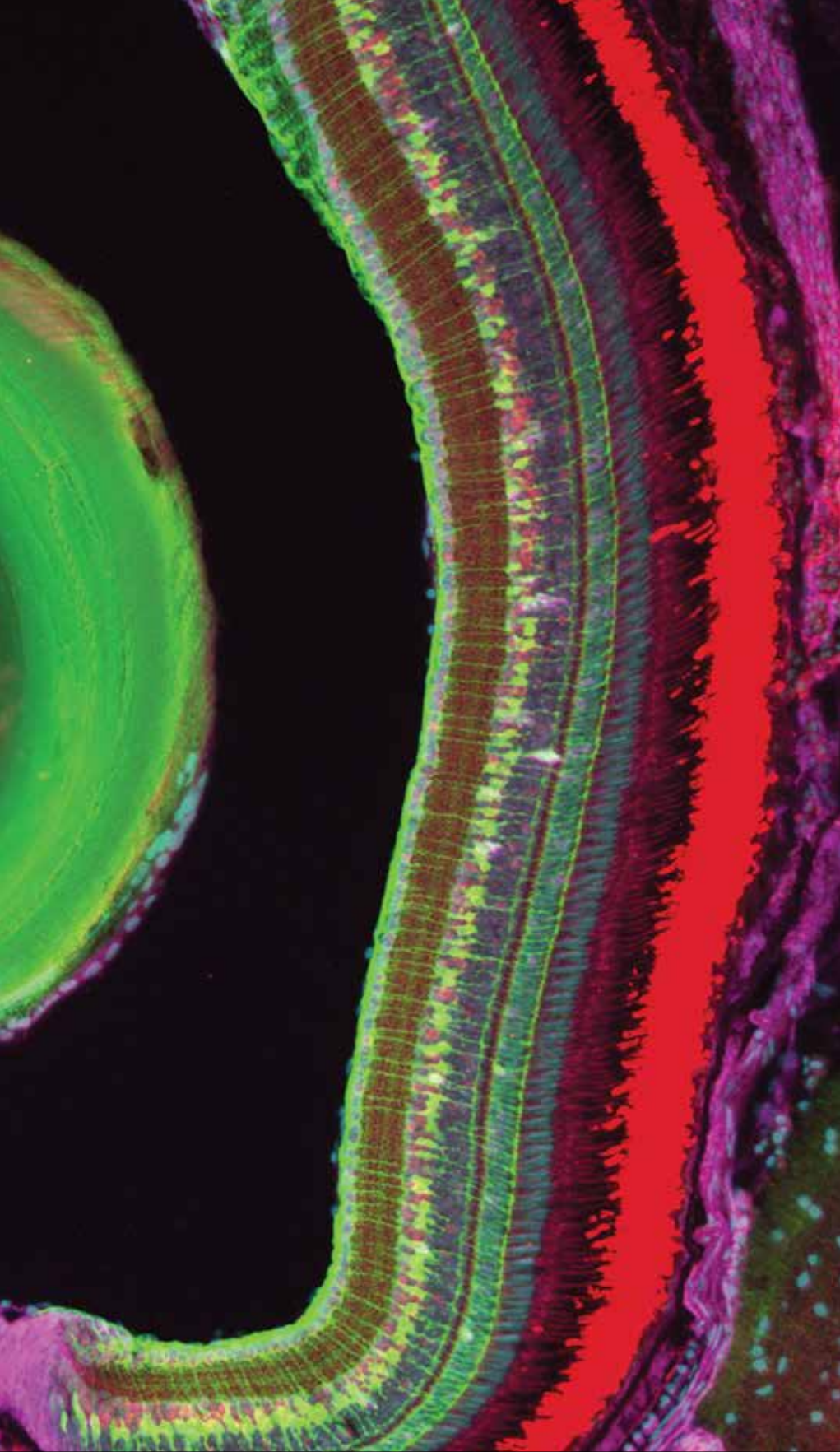


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October **17-21**



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