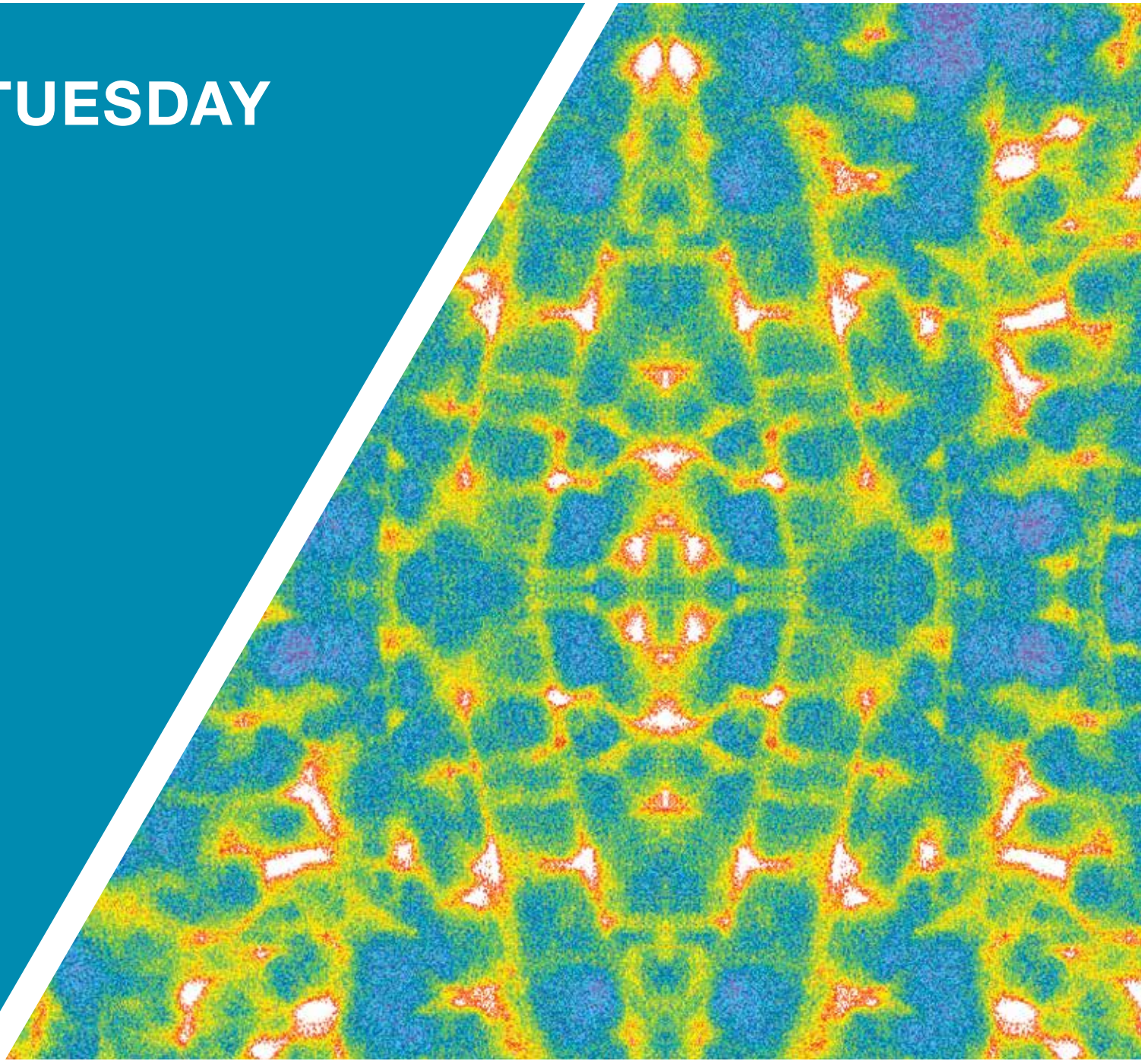
Neuroscience 2013

TUESDAY



SAN DIEGO | NOVEMBER 12

Scientific Session Listings 491 – 680

SfN Society for Neuroscience

Tuesday Highlights

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

Special Lecture

Blood-Brain Barrier and Neurodegeneration **CME**
Berislav V. Zlokovic, MD, PhD
University of Southern California
8:30–9:40 a.m.
San Diego Convention Center: Ballroom 20

Symposium

Brain, Cognition, and Genetics in Healthy Aging **CME**
Chair: Apostolos P. Georgopoulos, MD, PhD
8:30–11:00 a.m.
San Diego Convention Center: 6A

Symposium

Sensory End Organs: Signal Processing in the Periphery **CME**
Chair: Stephen D. Roper, PhD
8:30–11 a.m.
San Diego Convention Center: 6B

Symposium

Epigenetics in Epilepsy: Epiphany or Epiphenomenon? **CME**
Chair: Tallie Z. Baram, MD, PhD
8:30–11 a.m.
San Diego Convention Center: 6F

Minisymposium

Tau in Dendrites: Function and Dysfunction **CME**
Chair: Erik D. Roberson, MD, PhD
8:30–11 a.m.
San Diego Convention Center: 6E

Minisymposium

New Insights Into the Specificity and Plasticity of Reward and Aversion Encoding in the Mesolimbic System **CME**
Chair: Susan F. Volman, PhD
8:30–11 a.m.
San Diego Convention Center: 28A

Minisymposium

Sensory Deprivation and Brain Plasticity: Insights From Behavioral and Neuroimaging Studies of Deaf and Blind Individuals **CME**
Chair: Rain G. Bosworth, PhD
Co-chair: Matthew Dye, PhD
8:30–11 a.m.
San Diego Convention Center: 29D

Special Lecture

How Synthetic and Chemical Biology Will Transform Neuroscience **CME**
Bryan L. Roth, MD, PhD
University of North Carolina at Chapel Hill
10–11:10 a.m.
San Diego Convention Center: Ballroom 20

Animals in Research Panel ✍

Facing Challenges to Animal Research: Finding Guidance in Your Institution
Organizer: Michael E. Goldberg, MD
Panelists: Alesandra Angelucci, PhD; Gene Block, PhD; Mary Jo Shepherd, DVM; Stefan Treue, PhD
noon–2 p.m.
San Diego Convention Center: 11B

Celebration of Women in Neuroscience Luncheon ✍🕮
Speaker: Carol Barnes, PhD
noon–2 p.m.
Hilton Bayfront: Indigo AE

Special Lecture

Plasticity in the Adult Brain: Neurogenesis and Neuroepigenetics **CME**
Hongjun Song, PhD
Johns Hopkins University School of Medicine
1–2:10 p.m.
San Diego Convention Center: Ballroom 20

Symposium

How the Lateral Hypothalamus Links Energy Status With Motivated Behaviors **CME**
Chair: Alan G. Watts, DPhil
1:30–4 p.m.
San Diego Convention Center: 6A

Minisymposium

Therapeutic Neuromodulation With Transcranial Current Stimulation: Ready for Rational Design? **CME**
Chair: Flavio Frohlich, PhD
Co-chair: Michael A. Nitsche, MD
1:30–4 p.m.
San Diego Convention Center: 6B

Plan to Attend

WEDNESDAY, NOV. 13

Special Lecture

Free Energy and Active Inference **CME**
Karl J. Friston, FRS
University College London
8:30–9:40 a.m.
San Diego Convention Center: Ballroom 20

Special Lecture

Glioma: A Neurocentric Look at Cancer **CME**
Harald Sontheimer, PhD
University of Alabama at Birmingham
10–11:10 a.m.
San Diego Convention Center: Ballroom 20

Special Lecture

Neurocircuitry of Addiction: A Stress Surfeit Disorder **CME**
George F. Koob, PhD
The Scripps Research Institute
11:30 a.m.–12:40 p.m.
San Diego Convention Center: Ballroom 20

Tuesday Highlights (continued)

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

Minisymposium

Electrical Coupling and Microcircuits: Network Operation and Plasticity **CME**

Chair: Jian Jing, PhD

1:30–4 p.m.

San Diego Convention Center: 6E

Minisymposium

Perceptual Spaces: Mathematical Structures to Neural Mechanisms **CME**

Chair: Qasim Zaidi, PhD

Co-chair: Jonathan D. Victor, MD, PhD

1:30–4 p.m.

San Diego Convention Center: 28A

History of Neuroscience Lecture

Reward Circuitry in the Brain

Roy A. Wise, PhD

Intramural Research Program of the National Institute on Drug Abuse, NIH

2:30–3:40 p.m.

San Diego Convention Center: Ballroom 20

Public Advocacy Forum

Policy Implications for the Science of Aging and End of Life

Organizer: Anne Young, MD, PhD

Panelists: Sewin Chan, PhD; Fred H. Gage, PhD; S. Jay Olshansky, PhD; Daniel Perry

3–5 p.m.

San Diego Convention Center: 10

Presidential Special Lecture

Understanding Cortical Hierarchies: The Six-Piece Puzzle of Face Perception **CME**

Doris Y. Tsao, PhD

California Institute of Technology

5:15–6:25 p.m.

San Diego Convention Center: Ballroom 20

Transitioning Beyond the Postdoc: Workshop for Early-Career Investigators

Organizer: Nancy S. Pilotte, PhD

6:30–9 p.m.

San Diego Marriott Marquis and Marina: Salon D

SfN Members' Business Meeting

6:45–7:30 p.m.

San Diego Convention Center: 3

SfN-Sponsored Socials

6:45–8:45 p.m.

San Diego Marriott Marquis and Marina Meeting Rooms

See page xiii.

Graduate Student Reception

9 p.m.–midnight

Hilton Bayfront: Indigo B

Chronological List of Tuesday Sessions

Theme Descriptions

A Development

B Neural Excitability, Synapses, and Glia: Cellular Mechanisms

C Disorders of the Nervous System

D Sensory and Motor Systems

E Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge

F Cognition and Behavior

G Novel Methods and Technology Development

H History, Teaching, Public Awareness, and Societal Impacts in Neuroscience

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

Note: Theme H Posters will be on display in Hall B beginning at 1 p.m. on Saturday, Nov. 9, and will remain posted until 5 p.m. on Sunday, Nov. 10. One–hour presentation times will occur either Saturday afternoon or Sunday morning.

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
	Featured Programs						
491	Blood-Brain Barrier and Neurodegeneration	Special Lecture		Ballroom 20	12 Tues	8:30-9:40 a.m.	1.25
492	Brain, Cognition, and Genetics in Healthy Aging	Symposium		6A	12 Tues	8:30-11 am.	2.5
493	Sensory End Organs: Signal Processing in the Periphery	Symposium		6B	12 Tues	8:30-11 am.	2.5
494	Epigenetics in Epilepsy: Epiphany or Epiphenomenon?	Symposium		6F	12 Tues	8:30-11 am.	2.5
495	Tau in Dendrites: Function and Dysfunction	Minisymposium		6E	12 Tues	8:30-11 am.	2.5
496	New Insights into the Specificity and Plasticity of Reward and Aversion Encoding in the Mesolimbic System	Minisymposium		28A	12 Tues	8:30-11 am.	2.5
497	Sensory Deprivation and Brain Plasticity: Insights from Behavioral and Neuroimaging Studies of Deaf and Blind Individuals	Minisymposium		29D	12 Tues	8:30-11 am.	2.5
498	How Synthetic and Chemical Biology Will Transform Neuroscience	Special Lecture		Ballroom 20	12 Tues	10-11:10 a.m.	1.25
	Nanosymposia (8 a.m.–noon)						
499	Neurogenesis in the Adult Mammalian Brain	Nanosymposium		25A	12 Tues	8-11:15 a.m.	
500	Neural Differentiation and Disease Modeling Using Stem Cells or Reprogramming	Nanosymposium		32B	12 Tues	8-11:30 a.m.	
501	Motor Neuron Diseases: Preclinical Therapeutics	Nanosymposium		30B	12 Tues	8-10:45 a.m.	
502	Spinal Cord Injury: Therapeutic Strategies	Nanosymposium		24A	12 Tues	8-11:30 a.m.	
503	Mood Disorders: Preclinical Studies and Animal Models	Nanosymposium		23A	12 Tues	8-10:45 a.m.	
504	Mood Disorders: Animal Models	Nanosymposium		33C	12 Tues	8-11 a.m.	
505	Medium Spiny Neuron Diversity and Striatal Function	Nanosymposium		1B	12 Tues	8-10:15 a.m.	
506	Inflammatory Reflex Control	Nanosymposium		2	12 Tues	8-9:45 a.m.	
507	Perception, Attention, and Working Memory	Nanosymposium		4	12 Tues	8-10 a.m.	
508	Learning and Memory: Epigenetics	Nanosymposium		5B	12 Tues	8-11:15 a.m.	
312	The Control of Sleep	Nanosymposium		2	11 Mon	8–10 a.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
	Posters (8 a.m.–noon)						
509	Cell Migration: Cellular Dynamics	Poster	A1-A12	Halls B-H	12 Tues	8 a.m.-noon	
510	Neuronal Differentiation: Mechanisms I	Poster	A13-B4	Halls B-H	12 Tues	8 a.m.-noon	
511	Neuronal Differentiation: Mechanisms II	Poster	B5-B34	Halls B-H	12 Tues	8 a.m.-noon	
512	Synapse Formation: PNS	Poster	C1-C10	Halls B-H	12 Tues	8 a.m.-noon	
513	Synapse Formation: CNS II	Poster	C11-C29	Halls B-H	12 Tues	8 a.m.-noon	
514	NMDA Receptor Trafficking and Physiology	Poster	C30-D25	Halls B-H	12 Tues	8 a.m.-noon	
515	TRP Channel Physiology and Pharmacology	Poster	D26-D41	Halls B-H	12 Tues	8 a.m.-noon	
516	Muscarinic Acetylcholine Receptors and GABAB Receptors	Poster	D42-E15	Halls B-H	12 Tues	8 a.m.-noon	
517	Synaptic Transmission: Synaptic Integration I	Poster	E16-E35	Halls B-H	12 Tues	8 a.m.-noon	
518	Long-Term Depression (LTD)	Poster	E36-F9	Halls B-H	12 Tues	8 a.m.-noon	
519	Spike-Timing Dependent Plasticity	Poster	F10-F26	Halls B-H	12 Tues	8 a.m.-noon	
520	Network Interactions: Signal Propagation	Poster	F27-G4	Halls B-H	12 Tues	8 a.m.-noon	
521	Astrocytes: Injury and Disease	Poster	G5-G34	Halls B-H	12 Tues	8 a.m.-noon	
522	Microglia: Signaling	Poster	G35-G49	Halls B-H	12 Tues	8 a.m.-noon	
523	Alzheimer's Disease: Interventions	Poster	G50-H16	Halls B-H	12 Tues	8 a.m.-noon	
524	Alzheimer's Disease: *In Vitro* Therapeutics	Poster	H17-H30	Halls B-H	12 Tues	8 a.m.-noon	
525	Beta and Gamma Secretase, BACE, and Presenilin	Poster	H31-I5	Halls B-H	12 Tues	8 a.m.-noon	
526	Parkinson's Disease: Human Studies Imaging	Poster	I6-J17	Halls B-H	12 Tues	8 a.m.-noon	
527	Parkinson's Disease: Clinical Therapies	Poster	J18-L2	Halls B-H	12 Tues	8 a.m.-noon	
528	Huntington's Disease: Animal Models II	Poster	L3-M1	Halls B-H	12 Tues	8 a.m.-noon	
529	Motor Neuron Disease: Mechanisms III	Poster	M2-N14	Halls B-H	12 Tues	8 a.m.-noon	
530	Neuromuscular Diseases	Poster	N15-P6	Halls B-H	12 Tues	8 a.m.-noon	
531	Neural Mechanisms Associated with Autistic Behaviors in Animals	Poster	P7-Q8	Halls B-H	12 Tues	8 a.m.-noon	
532	Rett's, Fragile X, and Angelman's Disorders	Poster	Q9-S6	Halls B-H	12 Tues	8 a.m.-noon	
533	Dyslexia, Speech, and Motor Developmental Disorders	Poster	S7-T12	Halls B-H	12 Tues	8 a.m.-noon	
534	Epilepsy: Drug Treatment	Poster	T13-U14	Halls B-H	12 Tues	8 a.m.-noon	
535	Epilepsy: Human Studies	Poster	U15-W9	Halls B-H	12 Tues	8 a.m.-noon	
536	Epilepsy: Hippocampus and Learning Disorders	Poster	W10-X8	Halls B-H	12 Tues	8 a.m.-noon	
537	Ischemia: Pathophysiology, Biomarkers, and Treatment	Poster	X9-Z3	Halls B-H	12 Tues	8 a.m.-noon	
538	Neurotoxicity and Neurodegeneration II	Poster	Z4-AA14	Halls B-H	12 Tues	8 a.m.-noon	
539	Somatosensory and Pain: Human Subjects	Poster	AA15-BB9	Halls B-H	12 Tues	8 a.m.-noon	
540	Mood Disorders: Human Biomarkers and Treatment Studies	Poster	BB10-DD2	Halls B-H	12 Tues	8 a.m.-noon	
541	Mood Disorders: Animal Models II	Poster	DD3-EE14	Halls B-H	12 Tues	8 a.m.-noon	
542	Mood Disorders: Animal Models III	Poster	EE15-GG16	Halls B-H	12 Tues	8 a.m.-noon	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
543	Behavioral Effects of Stress	Poster	GG17-II10	Halls B-H	12 Tues	8 a.m.-noon	
544	Alcohol: Tolerance, Dependence, and Withdrawal	Poster	II11-KK4	Halls B-H	12 Tues	8 a.m.-noon	
545	Nicotine: Reinforcement, Seeking, and Reinstatement	Poster	KK5-NN4	Halls B-H	12 Tues	8 a.m.-noon	
546	Cocaine: Neural Mechanisms of Addiction IV	Poster	NN5-OO15	Halls B-H	12 Tues	8 a.m.-noon	
547	Monoamines and Behavior: Serotonin and Histamine	Poster	OO16-PP15	Halls B-H	12 Tues	8 a.m.-noon	
548	Auditory System: Synapses, Circuits, and Models	Poster	PP15-QQ16	Halls B-H	12 Tues	8 a.m.-noon	
549	Auditory System: Adaptation, Learning, and Memory	Poster	QQ7-QQ26	Halls B-H	12 Tues	8 a.m.-noon	
550	Mutisensory: Cross-Modal Processing in Humans	Poster	RR1-RR22	Halls B-H	12 Tues	8 a.m.-noon	
551	Multisensory: Neural Circuitry and Connections	Poster	RR23-SS12	Halls B-H	12 Tues	8 a.m.-noon	
552	Visual Cognition: Memory	Poster	TT1-TT10	Halls B-H	12 Tues	8 a.m.-noon	
553	Retinal Circuitry: Synaptic Interactions	Poster	TT11-UU17	Halls B-H	12 Tues	8 a.m.-noon	
554	Striate Cortex: Functional Organization I	Poster	UU18-VV4	Halls B-H	12 Tues	8 a.m.-noon	
555	Extrastriate Cortex: Neural Coding	Poster	VV5-WW3	Halls B-H	12 Tues	8 a.m.-noon	
556	Nociceptors: Anatomical and Physiological Studies	Poster	WW4-WW20	Halls B-H	12 Tues	8 a.m.-noon	
557	Psychophysics and Behavior	Poster	WW21-XX9	Halls B-H	12 Tues	8 a.m.-noon	
558	Pain Models: Physiology	Poster	XX10-ZZ4	Halls B-H	12 Tues	8 a.m.-noon	
559	Motor Pattern Generation: Neuromodulation	Poster	ZZ5-AAA6	Halls B-H	12 Tues	8 a.m.-noon	
560	Motor Pattern Generation: Vertebrate Models I	Poster	AAA7-BBB3	Halls B-H	12 Tues	8 a.m.-noon	
561	Cerebellum: Anatomy and *In Vitro* Studies	Poster	BBB4-CCC3	Halls B-H	12 Tues	8 a.m.-noon	
562	Posture and Gait: Kinematics, Muscle Activity, Exercise and Fatigue, Biomechanics	Poster	CCC4-EEE1	Halls B-H	12 Tues	8 a.m.-noon	
563	Voluntary Motor Control: Stroke	Poster	EEE2-EEE22	Halls B-H	12 Tues	8 a.m.-noon	
564	Cortical Planning and Execution: Behavior	Poster	EEE23-FFF13	Halls B-H	12 Tues	8 a.m.-noon	
565	Sensorimotor Control in Orofacial Systems	Poster	FFF14-FFF23	Halls B-H	12 Tues	8 a.m.-noon	
566	Voluntary Motor Plasticity	Poster	FFF24-GGG27	Halls B-H	12 Tues	8 a.m.-noon	
567	Brain-Machine Interface IV	Poster	GGG28-GGG47	Halls B-H	12 Tues	8 a.m.-noon	
568	Hypothalamic, Neural, and Peripheral Regulation of the HPG and HPA	Poster	GGG48-HHH16	Halls B-H	12 Tues	8 a.m.-noon	
569	Sexual Differentiation of Neuroanatomical Endpoints	Poster	HHH17-HHH29	Halls B-H	12 Tues	8 a.m.-noon	
570	Sleep Systems: Humans, Monkeys, and Models	Poster	HHH30-III3	Halls B-H	12 Tues	8 a.m.-noon	
571	Perception: Auditory, Tactile, and Multisensory	Poster	III4-III21	Halls B-H	12 Tues	8 a.m.-noon	
572	Human Long-Term Memory: Retrieval	Poster	III22-III45	Halls B-H	12 Tues	8 a.m.-noon	
573	Working Memory and Executive Function III	Poster	JJJ1-JJJ26	Halls B-H	12 Tues	8 a.m.-noon	
574	Executive Function: Corticostriatal Mechanisms	Poster	JJJ27-JJJ47	Halls B-H	12 Tues	8 a.m.-noon	
575	Decision-Making: Behavioral and Pharmacological Studies	Poster	JJJ48-JJJ69	Halls B-H	12 Tues	8 a.m.-noon	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
576	Hippocampus: Subiculum Physiology and Function	Poster	JJJ70-KKK20	Halls B-H	12 Tues	8 a.m.-noon	
577	Molecular Mechanisms of Memory Reconsolidation and Retrieval	Poster	KKK21-KKK39	Halls B-H	12 Tues	8 a.m.-noon	
578	Animal Learning and Memory: Cortical and Hippocampal Circuits III	Poster	KKK40-KKK69	Halls B-H	12 Tues	8 a.m.-noon	
579	Animal Cognition: Learning and Memory – Aging I	Poster	KKK70-LLL18	Halls B-H	12 Tues	8 a.m.-noon	
580	Animal Learning and Memory: Pharmacology I	Poster	LLL19-LLL39	Halls B-H	12 Tues	8 a.m.-noon	
581	Basal Forebrain: Neurophysiology and Function	Poster	LLL40-LLL50	Halls B-H	12 Tues	8 a.m.-noon	
582	Neural Circuits for Regulating Stress and Emotion	Poster	LLL51-LLL63	Halls B-H	12 Tues	8 a.m.-noon	
583	Brain Mechanisms Mediating Interactions between Rewards and Drugs	Poster	LLL64-MMM10	Halls B-H	12 Tues	8 a.m.-noon	
584	Vocal Communication: Non-Avian	Poster	MMM11-MMM26	Halls B-H	12 Tues	8 a.m.-noon	
585	New Tools for Studying Channels, Receptors, and Single Neurons	Poster	MMM27-MMM45	Halls B-H	12 Tues	8 a.m.-noon	
586	New Tools for Studying Neural Networks	Poster	MMM46-NNN30	Halls B-H	12 Tues	8 a.m.-noon	
587	Computation, Modeling, and Simulation VII	Poster	NNN31-NNN39	Halls B-H	12 Tues	8 a.m.-noon	
588	Computation, Modeling, and Simulation VIII	Poster	NNN40-NNN58	Halls B-H	12 Tues	8 a.m.-noon	
	Featured Programs						
589	Plasticity in the Adult Brain: Neurogenesis and Neuroepigenetics	Special Lecture		Ballroom 20	12 Tues	1-2:10 p.m.	1.25
590	How the Lateral Hypothalamus Links Energy Status With Motivated Behaviors	Symposium		6A	12 Tues	1:30-4 p.m.	2.5
591	Therapeutic Neuromodulation With Transcranial Current Stimulation: Ready for Rational Design?	Minisymposium		6B	12 Tues	1:30-4 p.m.	2.5
592	Electrical Coupling and Microcircuits: Network Operation and Plasticity	Minisymposium		6E	12 Tues	1:30-4 p.m.	2.5
593	Perceptual Spaces: Mathematical Structures to Neural Mechanisms	Minisymposium		28A	12 Tues	1:30-4 p.m.	2.5
594	Reward Circuitry in the Brain	History of Neuroscience Lecture		Ballroom 20	12 Tues	2:30-3:40 p.m.	
595	Understanding Cortical Hierarchies: The Six-Piece Puzzle of Face Perception	Presidential Special Lecture		Ballroom 20	12 Tues	5:15-6:25 p.m.	1.25
	Nanosymposia (1–5 p.m.)						
596	Synapse Formation: Transsynaptic Mechanisms	Nanosymposium		25A	12 Tues	1-4:15 p.m.	
597	Microglia and Oligodendrocytes: Cell Biology and Function	Nanosymposium		24A	12 Tues	1-3:45 p.m.	
598	Alzheimer's Disease: Tau Biology	Nanosymposium		23A	12 Tues	1-3:45 p.m.	
599	Cognitive Function Related to Alzheimer's Disease	Nanosymposium		33C	12 Tues	1-3:30 p.m.	
600	Motor Neuron Disease: Mechanisms IV	Nanosymposium		30B	12 Tues	1-4:15 p.m.	
601	Oxidative Stress and Cell Death Mechanisms in the Nervous System	Nanosymposium		32B	12 Tues	1-3:45 p.m.	
602	Extrastriate Cortex: Signals and Organization	Nanosymposium		1B	12 Tues	1-3:30 p.m.	
603	Pain Imagining and Perception	Nanosymposium		5B	12 Tues	1-2:45 p.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
604	Neural and Molecular Mechanisms of Stress Response	Nanosymposium		2	12 Tues	1-2:45 p.m.	
605	Fear and Aversive Learning and Memory: Cellular Mechanisms	Nanosymposium		4	12 Tues	1-3:30 p.m.	
606	Data Analysis and Statistics	Nanosymposium		29D	12 Tues	1-2:30 p.m.	
	Posters (1–5 p.m.)						
607	Postnatal Neurogenesis: Mechanisms	Poster	A1-B4	Halls B-H	12 Tues	1-5 p.m.	
608	Adult Neurogenesis and Disease	Poster	B5-B19	Halls B-H	12 Tues	1-5 p.m.	
609	Axon Growth and Guidance: Cytoskeleton	Poster	B20-C2	Halls B-H	12 Tues	1-5 p.m.	
610	Sensory System Development	Poster	C3-C30	Halls B-H	12 Tues	1-5 p.m.	
611	Transplantation	Poster	C31-D14	Halls B-H	12 Tues	1-5 p.m.	
612	Non-NMDA Glutamate Receptor Trafficking and Physiology	Poster	D15-E2	Halls B-H	12 Tues	1-5 p.m.	
613	Glycine and Other Ligand Gated Ion Channels	Poster	E3-E21	Halls B-H	12 Tues	1-5 p.m.	
614	Metabotropic Glutamate Receptors: Pharmacology and Physiology	Poster	E22-E43	Halls B-H	12 Tues	1-5 p.m.	
615	Modulation of Neuronal Firing II	Poster	E44-F20	Halls B-H	12 Tues	1-5 p.m.	
616	Glia-Neuron Interactions: In vivo Approaches	Poster	F21-F38	Halls B-H	12 Tues	1-5 p.m.	
617	Human Disease: Biomarkers	Poster	F39-F46	Halls B-H	12 Tues	1-5 p.m.	
618	Animal Models: Tau	Poster	G1-G28	Halls B-H	12 Tues	1-5 p.m.	
619	Alzheimer's Disease: Tau Biology	Poster	G29-G56	Halls B-H	12 Tues	1-5 p.m.	
620	Abeta Treatments and Metabolism	Poster	G57-H17	Halls B-H	12 Tues	1-5 p.m.	
621	Tau and Non-Alzheimer's Dementia	Poster	H18-H28	Halls B-H	12 Tues	1-5 p.m.	
622	Parkinson's Disease: Rodent Models and Behavior	Poster	H29-J4	Halls B-H	12 Tues	1-5 p.m.	
623	Parkinson's Disease: Rodent Toxin Models	Poster	J5-L2	Halls B-H	12 Tues	1-5 p.m.	
624	Neurodegeneration: Protein Aggregation Disorders	Poster	L3-L12	Halls B-H	12 Tues	1-5 p.m.	
625	Neurodegeneration: Synaptopathies, Autophagy, and Ubiquitin	Poster	L13-M3	Halls B-H	12 Tues	1-5 p.m.	
626	Epilepsy: Ion Channels	Poster	M4-N7	Halls B-H	12 Tues	1-5 p.m.	
627	Epilepsy: GABAergic Transmission and Development	Poster	N8-P7	Halls B-H	12 Tues	1-5 p.m.	
628	Brain Injury: Therapeutic Strategies II	Poster	P8-Q15	Halls B-H	12 Tues	1-5 p.m.	
629	Spinal Cord Injury III	Poster	Q16-S16	Halls B-H	12 Tues	1-5 p.m.	
630	Neurotoxicity and Cell Death Mechanisms	Poster	S17-U9	Halls B-H	12 Tues	1-5 p.m.	
631	Neuro-Oncology II	Poster	U10-V6	Halls B-H	12 Tues	1-5 p.m.	
632	Schizophrenia and Bipolar Disorder: Animal Models IV	Poster	V7-X6	Halls B-H	12 Tues	1-5 p.m.	
633	Alcohol and Development	Poster	X7-X17	Halls B-H	12 Tues	1-5 p.m.	
634	Alcohol: Behavioral Effects	Poster	X18-Z5	Halls B-H	12 Tues	1-5 p.m.	
635	Addiction: Genetics and Treatment, Preclinical, and Clinical Studies	Poster	Z6-AA1	Halls B-H	12 Tues	1-5 p.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
636	Auditory System: Perception, Cognition, and Action – Animal and Modeling Studies	Poster	AA2-AA13	Halls B-H	12 Tues	1-5 p.m.	
637	Auditory System: Perception, Cognition, and Action – Human Studies	Poster	AA14-CC9	Halls B-H	12 Tues	1-5 p.m.	
638	Striate Cortex: Local Circuitry	Poster	CC10-DD17	Halls B-H	12 Tues	1-5 p.m.	
639	Striate Cortex: Functional Organization II	Poster	DD18-FF3	Halls B-H	12 Tues	1-5 p.m.	
640	Visual Representation of Objects	Poster	FF4-GG17	Halls B-H	12 Tues	1-5 p.m.	
641	Pain Transduction: TRP Channels	Poster	GG18-II8	Halls B-H	12 Tues	1-5 p.m.	
642	Inflammatory Pain: Inflammatory Mediators	Poster	II9-JJ7	Halls B-H	12 Tues	1-5 p.m.	
643	Visceral Pain	Poster	JJ8-LL11	Halls B-H	12 Tues	1-5 p.m.	
644	Somatosensory Cortex: Neural Coding	Poster	LL12-NN18	Halls B-H	12 Tues	1-5 p.m.	
645	Spinal Cord Injury: Plasticity III	Poster	OO1-PP8	Halls B-H	12 Tues	1-5 p.m.	
646	Muscle: Pathophysiology and Muscle Diseases	Poster	PP9-PP22	Halls B-H	12 Tues	1-5 p.m.	
647	Cerebellum: Cortex and Nuclei – *In Vivo* Studies	Poster	PP23-QQ24	Halls B-H	12 Tues	1-5 p.m.	
648	Oscillations in Basal Ganglia Circuits	Poster	QQ25-RR10	Halls B-H	12 Tues	1-5 p.m.	
649	Posture and Gait: Aging, Injury, and Disease	Poster	RR11-SS8	Halls B-H	12 Tues	1-5 p.m.	
650	Reaching Control: Movement Selection and Strategy	Poster	SS9-UU7	Halls B-H	12 Tues	1-5 p.m.	
651	Voluntary Motor Control: Inter-Limb and Bimanual Control	Poster	UU8-UU24	Halls B-H	12 Tues	1-5 p.m.	
652	Stroke, Damage, or Disease: Mechanisms of Abnormal Movement	Poster	UU25-VV19	Halls B-H	12 Tues	1-5 p.m.	
653	Brain-Machine Interface: Recording and Decoding	Poster	VV20-WW12	Halls B-H	12 Tues	1-5 p.m.	
654	Neurosteroids and the Aging Brain	Poster	WW13-XX4	Halls B-H	12 Tues	1-5 p.m.	
655	Social Behavior: Regulatory Factors	Poster	XX5-ZZ1	Halls B-H	12 Tues	1-5 p.m.	
656	Respiratory Regulation: Central Respiratory Chemoreception	Poster	ZZ2-ZZ15	Halls B-H	12 Tues	1-5 p.m.	
657	Gastrointestinal, Renal/Urinary, and Reproductive Regulation	Poster	ZZ16-AAA18	Halls B-H	12 Tues	1-5 p.m.	
658	Sleep Systems: Invertebrates, Fish, Birds, and Rodents	Poster	AAA19-BBB22	Halls B-H	12 Tues	1-5 p.m.	
659	Sleep Systems: Rodents	Poster	BBB23-EEE2	Halls B-H	12 Tues	1-5 p.m.	
660	Human Perceptual and Spatial Learning	Poster	EEE3-FFF3	Halls B-H	12 Tues	1-5 p.m.	
661	Human Medial Temporal Lobe: Neurophysiology	Poster	FFF4-GGG7	Halls B-H	12 Tues	1-5 p.m.	
662	Attentional Networks I	Poster	GGG8-GGG33	Halls B-H	12 Tues	1-5 p.m.	
663	Inhibitory Control I	Poster	GGG34-HHH7	Halls B-H	12 Tues	1-5 p.m.	
664	Decision-Making: Risk and Uncertainty	Poster	HHH8-HHH23	Halls B-H	12 Tues	1-5 p.m.	
665	Social Systems	Poster	HHH24-HHH41	Halls B-H	12 Tues	1-5 p.m.	
666	Human Cognition: Cognitive Aging II	Poster	HHH42-III25	Halls B-H	12 Tues	1-5 p.m.	
667	Social Cognition: Neural Substrates II	Poster	III26-JJJ2	Halls B-H	12 Tues	1-5 p.m.	
668	Decision-Making: Cortical Mechanisms	Poster	JJJ3-JJJ16	Halls B-H	12 Tues	1-5 p.m.	
669	Cognition, Learning, and Memory: Neural Mechanisms	Poster	JJJ17-JJJ37	Halls B-H	12 Tues	1-5 p.m.	
670	Animal Learning and Memory: Cortical and Hippocampal Circuits IV	Poster	JJJ38-JJJ67	Halls B-H	12 Tues	1-5 p.m.	

Session Number	Session Title	Presentation Type	Poster Board Number	Location	Date	Session Time	CME Hours
671	Learning and Memory: Genes, Signaling, and Neurogenesis II	Poster	JJJ68-KKK17	Halls B-H	12 Tues	1-5 p.m.	
672	Learning and Behavior in Invertebrates	Poster	KKK18-KKK30	Halls B-H	12 Tues	1-5 p.m.	
673	Neural Mechanisms Mediating Emotion	Poster	KKK31-KKK44	Halls B-H	12 Tues	1-5 p.m.	
674	Rodent Models of Reward Processing	Poster	KKK45-KKK58	Halls B-H	12 Tues	1-5 p.m.	
675	Vocal Communication: Avian II	Poster	KKK59-LLL13	Halls B-H	12 Tues	1-5 p.m.	
676	New Molecular and Biological Techniques in Neuroscience II	Poster	LLL14-LLL43	Halls B-H	12 Tues	1-5 p.m.	
677	Staining, Tracing, and Imaging Techniques I	Poster	LLL44-MMM11	Halls B-H	12 Tues	1-5 p.m.	
678	Computation, Modeling, and Simulation IX	Poster	MMM12-MMM43	Halls B-H	12 Tues	1-5 p.m.	
679	Data Analysis and Statistics III	Poster	MMM46-NNN29	Halls B-H	12 Tues	1-5 p.m.	
680	Data Analysis and Statistics IV	Poster	NNN30-NNN42	Halls B-H	12 Tues	1-5 p.m.	
	Workshops, Meetings, and Events (Tuesday, Nov. 12)						
ME07	Animals in Research Panel: Facing Challenges to Animal Research: Finding Guidance in Your Institution	Meetings and Events		11B	12 Tues	noon-2 p.m.	
ME08	Celebration of Women in Neuroscience Luncheon	Meetings and Events		Hilton Bayfront: Indigo AE	12 Tues	noon-2 p.m.	
ME09	Public Advocacy Forum: Policy Implications for the Science of Aging and End of Life	Meetings and Events		10	12 Tues	3-5 p.m.	
PDW20	Transitioning Beyond the Postdoc: Workshop for Early-Career Investigators	Professional Development Workshops		San Diego Marriott Marquis and Marina: Salon D	12 Tues	6:30-9p.m.	
ME10	SfN Members' Business Meeting	Meetings and Events		3	12 Tues	6:45-7:30 p.m.	
ME11	Graduate Student Reception	Meetings and Events		Hilton Bayfront: Indigo BCDFGH	12 Tues	9 p.m.-midnight	

Dynamic Posters — Tuesday AM/PM

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

Theme	Abstract Title	Presenter Name	Dynamic Poster Location	Paper Poster Location	Paper Poster Pres. No.
Dynamic Posters (8 a.m.-noon)					
Theme A: Development	Crystal structures of the C1q-like protein family reveal conserved $Ca2^{+}$ binding motifs crucial for BAI3 GPCR interaction and synapse homeostasis	Susanne Ressl	DP1	C22	513.12
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	Amyloid-beta and agonist induce ion-flow independent conformational changes in the cytoplasmic domain of nmda receptors as monitored by fret-flim	Kim Dore	DP2	D25	514.3
Theme C: Disorders of the Nervous System	Subthalamic deep brain stimulation synchronizes cortical activity in humans with Parkinson's disease: Intraoperative investigation of single unit discharges and scalp potentials	Harrison Walker	DP3	K10	527.11
Theme C: Disorders of the Nervous System	Detecting preseizure states in intracranial EEG data using an adaptation of diffusion maps	Dominique Duncan	DP4	V8	535.12
Theme C: Disorders of the Nervous System	Intracranial depth electrode recordings with fine spatial and temporal resolution show neural correlates of movement in humans	Matthew Kerr	DP5	V6	535.1
Theme D: Sensory and Motor Systems	Channelrhodopsin-activation of bladder afferents is sufficient to initiate the visceromotor reflex	Jennifer DeBerry	DP6	WW7	556.04
Theme D: Sensory and Motor Systems	Cell-type specific organization of functional circuits in mouse visual cortex	Hongkui Zeng	DP7	UU19	554.03
Theme D: Sensory and Motor Systems	Transgenic expression of endogenous calcium indicator GCaMP3 allows visualization of somatic and visceral sensory neurons *in vivo*	Brian Davis	DP8	WW8	556.05
Theme E: Integrative Systems: Neuroendocrinology, Neuroimmunology, and Homeostatic Challenge	Expression and regulation of sexually dimorphic genes in the developing mouse cortex and hippocampus	Chris Armoskus	DP9	HHH20	569.04
Theme F: Cognition and Behavior	Locus coeruleus neuronal activity during stop task performance in rats	Andrea Bari	DP10	JJJ50	575.03
Dynamic Posters (1-5 p.m.)					
Theme A: Development	Chronic two-photon imaging of transplanted embryonic neurons in the cerebral cortex	Susanne Falkner	DP1	D7	611.11
Theme A: Development	Structural transformations of synaptic partners during growth of the calyx of Held	Dakota Jackson	DP2	C27	610.25
Theme B: Neural Excitability, Synapses, and Glia: Cellular Mechanisms	Utilizing four-channel two-photon laser scanning microscopy to investigate glioma-astrocyte-vascular interactions in the cortex of live mice	Ian Kimbrough	DP3	F22	616.02
Theme C: Disorders of the Nervous System	Optogenetic control of interneuronal synchrony can generate seizure-like events (sles) in multiple models of epilepsy	Michael Chang	DP4	P1	627.24

Theme	Abstract Title	Presenter Name	Dynamic Poster Location	Paper Poster Location	Paper Poster Pres. No.
Theme C: Disorders of the Nervous System	*In vitro* and *in vivo* analysis of precursors cells from medial ganglionic eminence in epileptic rats	Simone Romariz	DP5	N11	627.04
Theme D: Sensory and Motor Systems	Simultaneous PET/MR imaging of brain metabolism and coherent intrinsic activity in the visual system	Valentin Riedl	DP6	EE18	639.19
Theme D: Sensory and Motor Systems	Brain source connectivity reveals reorganization of the cingulate-operculum network in patients with painful chronic pancreatitis	Dina Lelic	DP7	KK5	643.16
Theme F: Cognition and Behavior	Neural basis of social learning in rhesus macaques	Jean-Francois Gariepy	DP8	JJJ35	669.19
Theme F: Cognition and Behavior	Why do we laugh at misfortune? An electrophysiological exploration of comic situation processing	Mirella Manfredi	DP9	JJJ1	667.22
Theme G: Novel Methods and Technology Development	LUMOS: A new optical clearing solution for 3D fluorescent imaging	Olga Efimova	DP10	LLL51	677.08

*Paper presentation will occur during the morning poster session on Sunday, Nov. 10, 11 a.m.–noon.

Tuesday Workshops, Meetings & Events

Professional Development, Advocacy, and Networking Resources

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

Tuesday, Nov. 12

Animals in Research Panel ✍
Facing Challenges to Animal Research: Finding Guidance in Your Institution

Organizer: Michael E. Goldberg, MD

Panelists: Alessandra Angelucci, PhD; Gene Block, PhD; Mary Jo Sheperd, DVM; Stefan Treue, PhD

Noon–2 p.m.
San Diego Convention Center: 11B
Contact: advocacy@sfn.org

Resources within a university or research institution can help scientists who use animal models. Offices and individuals can provide support on public engagement, secure assistance if you are targeted by extremists, and provide guidance on protocol approval issues. This panel will explore how to be proactive in seeking out help within your own institution most effectively and build greater internal awareness of animal research issues.

Celebration of Women in Neuroscience Luncheon ✍ 🕮
Noon–2 p.m.
Hilton Bayfront: Indigo AE
Contact: cwin@sfn.org

The annual luncheon honors women leaders in neuroscience. Carol Barnes, PhD, Regents' Professor in Psychology, Neurology, and Neuroscience at the University of Arizona, will deliver a keynote address entitiled, "The Evolving Face of Neuroscience: Role of Women and Globalization," followed by a roundtable group discussion on a topic related to women in neuroscience. Space is limited. Registration is required. Visit SfN.org/cwinrsvp to register.

Public Advocacy Forum
Policy Implications for the Science of Aging and End of Life

Organizer: Anne Young, MD, PhD

Panelists: Fred H. Gage, PhD; S. Jay Olshansky, PhD; Daniel Perry

3–5 p.m.
San Diego Convention Center: 10
Contact: advocacy@sfn.org

As the global population is living longer, the proportion of older people in the population is increasing. With aging comes a host of unique issues with profound policy implications including the human and financial toll of chronic conditions such as Alzheimer's disease, Parkinson's disease, lost mobility, and more. Other critical neuroscience issues include health and wellness for aging populations, improved options for and access to palliative care, and managing the family stress and mental health issues around end of life. How can scientific research inform policies and how can the scientific community develop advocacy strategies that highlight these challenges?

Transitioning Beyond the Postdoc: Workshop for Early-Career Investigators*
Organizer: Nancy S. Pilotte, PhD

6:30-9 p.m.
San Diego Marriott Marquis and Marina: Salon D
Contact: npilotte@nida.nih.gov

Ideal for those at the end of their postdoctoral fellowships, this workshop includes what you should consider when looking for a faculty position; how a potential employer might evaluate you (presented by the chair of a major neuroscience department); how to establish a laboratory (presented by the director of an NIH intramural program); and how to make a first grant application successful. Presenters: N. Pilotte, NIDA; P. Kalivas, MUSC; A. Bonci; NIDA; R. Sorensen, NIDA; H. Gordon, NIDA. Details: https://www.seiservices.com/nida/frontiers2013/

*Offered by an SfN partner organization

SfN Members' Business Meeting
6:45–7:30 p.m.
San Diego Convention Center: 3
Contact: info@sfn.org

Participate in a key forum to share your thoughts and suggestions with the Society's leadership while learning about your professional society's latest accomplishments.

- Meet and engage with leadership.
- Share suggestions and raise concerns.
- Learn how to get involved in SfN committees.
- Enjoy camaraderie with other SfN members as you enjoy light refreshments.

Graduate Student Reception
9 p.m.–midnight
Hilton Bayfront: Indigo B
Contact: program@sfn.org

A reception will be held for graduate students and postdoctoral trainees. No invitation required.

Tuesday Socials

Tuesday, Nov. 12, 6:45 – 8:45 p.m.

Behavioral and Cognitive Neuroscience Social
Purely Social
San Diego Marriott Marquis and Marina: Presidio

Chair: Suzy Scherf, PhD

The most inclusive of socials! If you are interested in interactions between behavior, cognition, and the brain, we want you. Come have a drink and get your GABA on while we talk shop, meet up with old friends, indoctrinate new friends, and sort out the intricacies of the biological underpinnings of mental, social, and affective processes.

Computational Neuroscience Social
Purely Social
San Diego Marriott Marquis and Marina: Marriott Hall 3

Chair: Margarita Zachariou, PhD

Guests: G. Buzsáki, C. Canavier, A. Destexhe, M. Giugliano, E. Izhikevich, A. Morrison, P. Poirazi, J. Rinzel, T. Sejnowski, Y. Timofeeva, M. Tsodyks

On intellectual overload due to the main meeting? Seize the opportunity to meet and greet like-minded fellow scientists in an informal and relaxed setting. This is a purely social and networking event to celebrate the thriving field of computational neuroscience. Reunite with old friends, make new ones, mingle with some of the top researchers in the field, and find out all about upcoming conferences, summer schools, professional opportunities, and much more. Everybody is welcome!

Epilepsy Social
Purely Social
San Diego Marriott Marquis and Marina: Marriott Hall 4

Chair: Chris G. Dulla, PhD

Guests: T.Z. Baram, A. Brooks-Kayal, R. Dingledine, T. Dixon-Salazar, F.E. Dudek, J.R. Huguenard, M.M. Huntsman, J. Maguire, S.A. Masino, J.O. McNamara, D.A. Prince, A. Roopra, R. Stewart, I. Soltesz, K.J. Staley

Epilepsy research is a dynamic and diverse field. Meet and hang out with some of the pioneers in the field of epilepsy, as well as junior faculty who are moving the field in exciting new directions. Representatives from NIH, CURE, and other funding agencies also will be in attendance. Everyone with an interest in epilepsy is invited. Whether you're an undergraduate or coined the phrase "seizures beget seizures," come enjoy a few hours of fun conversation and networking!

Eye Movements and Vestibular System Social
Purely Social
San Diego Marriott Marquis and Marina: Rancho Santa Fe 2

Chair: Marc A. Sommer, PhD

A purely social gathering for scientists interested in eye movements and the vestibular system. Come see old friends and make new ones!

Neuroendocrinology Social
Social with Brief Presentation
San Diego Marriott Marquis and Marina: Marriott Hall 6

Chair: Dave R. Grattan, PhD

Guests: J. Blaustein, Q. Pittman, C. Sisk, J. Smith

This year's Neuroendocrinology Social will have an Australian theme to acknowledge the forthcoming 8th International Congress of Neuroendocrinology (ICN) to be held in Sydney, Australia, Aug. 17-20, 2014, associated with the annual meeting of the Society for Behavioral Neuroendocrinology. While this will primarily be an opportunity for social mixing, we will provide a brief presentation about ICN. For entertainment, this presentation will be followed by a short celebrity debate.

Neuroethics Social: The Neuroethics of Enhancing or Erasing Memories in Society
Social with Brief Presentation
San Diego Marriott Marquis and Marina: Marriott Hall 5

Chair: Barbara J. Sahakian, PhD

Guests: V.J. Brown, P.S. Churchland, B.J. Everitt, F. H. Gage, S.E. Hyman, G.F. Koob, B.J. Mason, T.W. Robbins, N.D. Volkow

It is important to consider the potential harm of cognitive-enhancing drugs — the developing field of pharmacogenomics may be able to provide benefit with minimum harm. What if you could erase unpleasant memories? How do addictions develop? Join in considering the increasing use of prescription and lifestyle cognitive-enhancing drugs, problems associated with prescription stimulants, drugs to improve memory and other cognitive functions, drugs to improve forgetting, and addiction and free will.

Optogenetics Social: Light Up Your Social Life!
Purely Social
San Diego Marriott Marquis and Marina: Marriott Halls 1 and 2

Chair: Alexxai V. Kravitz, PhD

Guests: E. Boyden, A. Bonci, R. Costa, K. Deisseroth , G. Feng, P. Janak, A. Kreitzer, C. Luscher, G. Meisenbock, E. Nestler, B. Sabatini, S. Sternson, G. Stuber, L. Tsai, F. Zhang

Come mix, mingle, and meet neuroscientists with a common interest in optogenetic approaches. New and experienced users are encouraged to drop by to have a drink, relax, and hang out at this purely social event. You're certain to find illuminating discussions and meet new friends that are on your wavelength.

Songbird Social
Purely Social
San Diego Marriott Marquis and Marina: Chicago and Atlanta

Chair: Melissa Coleman, PhD

Guests: S. Canaria, P. Euophrys, M. Georgiana, T. Guttata, Z. Leucophrys, L. Striata

A gathering of people interested in songbirds.

Tuesday Satellite Events & Non-SfN Socials

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

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

Title	More Information	Time	Location	Room	Key
Monday , Nov. 11					
10th Annual Christopher Reeve "Hot Topics" in Stem Cell Biology	rachelb@sanfordburnham.org	6:30–9:30 p.m.	San Diego Convention Center	6A	1
Advances in Single Neuron and Network Electrical Recording Techniques	margaret@alascience.com	6:30–8 p.m.	San Diego Convention Center	23A	1
Association of Korean Neuroscientists: Annual Meeting and Social	yson@temple.edu	6:30–9:30 p.m.	akneuro.org/cms/		2
Behavioral Optogenetics: How Neuronal Activity Relates to Behavior	yvonne@noldus.com	6:30–9 p.m.	Manchester Grand Hyatt	Edward AB	1
Club Hypnos	bmanning@srsnet.org	6:30–8 p.m.	Hilton San Diego Bayfront	Indigo Ballrooms AE	2
Deciphering the Neural Circuit Basis of Brain Disease via *In Vivo* Imaging and Optogenetics	scott@inscopix.com	6:30–9:30 p.m.	San Diego Convention Center	25ABC	1
Ernst Strungmann Forum Social	lupp@esforum.de	6:30–9 p.m.	San Diego Marriott Marquis	Point Loma	2
Friends of Ohio State University Social	medicine.osu.edu/neuroscience/people/faculty/dana–m–mctigue–ph–d/Pages/index.aspx	6:30–8:30 p.m.	Hilton San Diego Bayfront	Aqua 300	2
Fluorescence Immunocytochemistry: Are the Brightest Fluorophores Enough?	gregg.hickey@rndsystems.com	6:30–8 p.m.	San Diego Convention Center	32A	2
Functional Brain Imaging at Cellular Resolution: The New Frontier of Brain Mapping	tricia.duff@olympus.com	6:30–10 p.m.	San Diego Marriott Marquis and Marina	San Diego Ballroom Salon A	1
Getting the Most Out of pCLAMP Software	Jeffrey.Tang@moldev.com	6:30–8:30 p.m.	San Diego Convention Center	27B	1
HEKA Electrophysiology Update	marketing@heka.com	6:30–8 p.m.	San Diego Marriott Marquis and Marina	Santa Rosa	1

Title	More Information	Time	Location	Room	Key
Internal Sensations, Artificial Intelligence, and Semblance Hypothesis	umvadakk@cc.umanitoba.ca	7–8 a.m.	San Diego Convention Center	3	3
In Vitro Microelectrode Array Recording Techniques	maulik@alascience.com	6:30–8 p.m.	San Diego Convention Center	24A	1
Leibniz Lecture: Niels Birbaumer on Clinical Application of Brain-Computer Interfaces	surjo@soekadar.com	6:30–7:30 p.m.	Hilton San Diego Bayfront	Aqua 308	2
Neuroscience Down Under	p.noakes@uq.edu.au	6:30–8 p.m.	Manchester Grand Hyatt	Randle Ballroom AB	2
Neuroscience in Germany XIX Social	emily.formica@dfg.de	7:30–10 p.m.	Hilton San Diego Bayfront	Aqua 306AB	2
NIH Brain Initiative: Forum to Discuss Interim Report	jorgensonla@od.nih.gov	6:30–8:30 p.m.	San Diego Convention Center	33C	2
SAGE Labs Symposium	kristen.bettinger@sial.com,	6:30–9 p.m.	San Diego Convention Center	4	1
Schizophrenia Social	hakon@ schizophreniaforum.org	6:30–8:30 p.m.	San Diego Convention Center	11B	2
Sleep and Circadian Biology DataBlitz	laposkya@nhlbi.nih.gov	8–10 p.m.	Hilton San Diego Bayfront	Indigo Ballrooms BF	2
Tackling the Terabyte: How Should Research Adapt to the Era of Big Data?	m.parker@nature.com	6:30–8:30 p.m.	Hilton San Diego Bayfront	Sapphire 400	3
Taiwan Night	cclien@ym.edu.tw	6:30–9:30 p.m.	San Diego Convention Center	30C	2
The Grass Foundation and Marine Biological Laboratory Social	execassist@ grassfoundation.org	6:30–8:30 p.m.	San Diego Marriott Marquis and Marina	La Costa	2
The International Society for Serotonin Research Mixer	becks@email.chop.edu	6:30–8:30 p.m.	Hennessy's Gaslamp Tavern	708 4th Ave.	3
Transitioning Beyond the Postdoc: Workshop for Early-Career Investigators	seiservices.com/Nida/ fronteirs 2013/	6:30–9 p.m.	San Diego Marriott Marquis and Marina	Marina Ballroom Salon D	2

Notes

Notes

Notes

Complete Session Listing

Tuesday AM

SPECIAL LECTURE *San Diego Convention Center*

491. ● **Blood-Brain Barrier and Neurodegeneration** — CME

Tue. 8:30 AM - 9:40 AM — Ballroom 20

Speaker: B. V. ZLOKOVIC*, USC.*

The blood-brain barrier (BBB) prevents entry of toxic blood products into the CNS. The BBB is damaged in neurological disorders such as Alzheimer's disease (AD) and amyotrophic lateral sclerosis (ALS). Yet, the role of BBB in the pathogenesis of these disorders is not yet fully appreciated. This lecture will discuss the BBB mechanisms causing neurodegeneration including astrocyte-pericyte-endothelial faulty signal transduction, effects of AD-associated genes on BBB integrity (APOE4, CLU, PICALM), and effects of capillary micro-bleeds.

SYMPOSIUM *San Diego Convention Center*

492. **Brain, Cognition, and Genetics in Healthy Aging** — CME

Tue. 8:30 AM - 11:00 AM — 6A

Chair: A. P. GEORGOPOULOS

The symposium will focus on the intersection of crucial fields in aging research, specifically brain, cognition, genetics, and neuroinformatics. Lectures will discuss diverse but complementary topics as they pertain to healthy brain aging. The topics include cognition, including neurobiology, across species; whole brain measurements; and genetics of brain aging in humans. How these areas can be integrated within a neuroinformatics framework to focus on healthy brain aging will be addressed.

8:30 **492.01** Introduction.

8:35 **492.02** Cognitive aging across species. C. A. BARNES. *Univ. of Arizona.*

9:10 **492.03** The Brain-ApoE story. R. MAHLEY. *Gladstone Inst. Neurolog. Dis*.

9:45 **492.04** Brain Health Index derived from multimodal brain measurements. M. Y. MAHAN. *Univ. of Minnesota*.

10:20 **492.05** A challenge for neuroinformatics. G. ASCOLI. *George Mason Univ.*

10:55 **492.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

493. **Sensory End Organs: Signal Processing in the Periphery** — CME

Tue. 8:30 AM - 11:00 AM — 6B

Chair: S. D. ROPER

Receptor end organs actively modulate, smooth, amplify, and otherwise shape signals prior to transmitting sensory information to the spinal cord and brain. This symposium addresses this information processing in peripheral sensory organs. The conclusion is that local interactions between cells within end organs significantly shape the sensory output. Neurotransmitters, including serotonin, ACh, glutamate, and ATP, act as modulators during sensory signaling.

8:30 **493.01** Introduction.

8:35 **493.02** Synaptic communication and signal processing among sensory cells in taste buds. N. CHAUDHARI. *Univ. of Miami Miller Sch. Med.*

9:10 **493.03** Cholinergic inhibition of cochlear hair cells. P. FUCHS. *Johns Hopkins Univ. Med.*

9:45 **493.04** Synaptic and paracrine mechanisms at carotid body arterial chemoreceptors. C. NURSE. *McMaster Univ.*

10:20 **493.05** Neurotransmitters act as paracrine signals to regulate insulin secretion from the pancreatic islet. D. CAICEDO. *Miller Sch. Medicine, U Miami.*

10:55 **493.06** Closing Remarks.

SYMPOSIUM *San Diego Convention Center*

494. **Epigenetics in Epilepsy: Epiphany or Epiphenomenon?** — CME

Tue. 8:30 AM - 11:00 AM — 6F

Chair: T. Z. BARAM

Epilepsy that follows brain insults involves transformation of normal neurons and circuits into an epileptic network. Evidence is emerging for large-scale changes in gene expression and associated epigenetic chromatin alterations during the epileptogenic process. However, how insults engage 'master-switches' of cellular machinery to enduringly alter gene-expression and the causal role of epigenetic changes in epilepsy are unclear. Mechanistic roles and potential therapeutic potential of epigenetics in epilepsy will be discussed and debated.

8:30 **494.01** Introduction.

8:35 **494.02** How do epilepsy-provoking insults trigger the cellular epigenetic machinery? A. ROOPRA. *Univ. of Wisconsin-Madison.*

9:10 **494.03** How does the brain become epileptic: master switches and large-scale changes in gene expression. T. Z. BARAM. *Univ. of California-Irvine.*

9:45 **494.04** Uncovering universal transcriptional mechanisms in limbic epilepsy: challenges and progress. R. DINGLEDINE. *Emory Univ. Sch. Med.*

10:20 **494.05** Enduring alterations of transcriptional pathways in epileptogenesis: Epigenetic or episodic? A. BROOKS-KAYAL. *Children's Hosp.*

10:55 **494.06** Closing Remarks.

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

MINISYMPOSIUM *San Diego Convention Center*

495. Tau in Dendrites: Function and Dysfunction — CME

Tue. 8:30 AM - 11:00 AM — 6E

Chair: E. D. ROBERSON

There is a growing appreciation that tau, long known as a primarily axonal protein, can localize to dendrites where it has important postsynaptic effects on neuronal function. This minisymposium will explore our emerging understanding of dendritic tau from regulation of excitability and plasticity to its role in neurodegeneration and excitotoxicity, including how tau localization in dendrites is controlled and the effects of dendritic tau in health and disease.

8:30 **495.01** Introduction.

8:35 **495.02** The Aß-Tau-microtubule cascade in dendritic degeneration. E. M. MANDELKOW. *DZNE.*

8:55 **495.03** The role of postsynaptic tau in synaptic transmission. J. BOEHM. Univ. of Montreal.

9:15 **495.04** ● Tau-dependent changes in dendritic ion channels in a mouse model of Alzheimer's disease. E. D. ROBERSON. *UAB.*

9:35 **495.05** PrPc:Fyn couples Aß oligomers to tau pathology at dendritic spines. S. E. LESNÉ. *Univ. of Minnesota.*

9:55 **495.06** The role of dendritic tau in acute and chronic excitotoxic brain damage. L. M. ITTNER. *Univ. of Sydney.*

10:15 **495.07** Tau mislocalization to dendritic spines impairs post-synaptic function. K. H. ASHE. *Univ. of Minnesota.*

10:35 **495.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

496. New Insights into the Specificity and Plasticity of Reward and Aversion Encoding in the Mesolimbic System — CME

Tue. 8:30 AM - 11:00 AM — 28A

Chair: S. F. VOLMAN

The ventral tegmental area (VTA) and nucleus accumbens (NAc) are often called the "reward system," although it is known that VTA and NAc neurons also respond to aversive events. New anatomical, physiological, and behavioral approaches provide a more complex picture of how VTA and NAc flexibly encode positive and negative states. This minisymposium highlights new approaches and findings, including activation of specific subcircuits and alterations of neuronal activity based on prior experience.

8:30 **496.01** Introduction.

8:35 **496.02** Diverse functions of distinct subtypes of dopamine neurons in the ventral tegmental area. S. LAMMEL. *Stanford Univ.*

8:55 **496.03** The expanding concept of mu opioid reward: signaling and circuits. E. B. MARGOLIS. *Ernest Gallo Clin. & Res. Ctr.*

9:15 **496.04** Teamwork matters in the VTA: coordinated activity during appetitive and aversive learning. Y. KIM. *Univ. of Pittsburgh.*

9:35 **496.05** Phasic mesolimbic encoding of rewarding and aversive stimuli: modulation by physiological state, learning, and implications for goal-directed behavior. M. F. ROITMAN. *Univ. Illinois At Chicago.*

9:55 **496.06** Mesocorticolimbic modulation of the generation of fear versus eating along a rostrocaudal gradient in nucleus accumbens shell. J. M. RICHARD. *Univ. of California, San Francisco.*

10:15 **496.07** Differential motivational control by nucleus accumbens medium spiny neuron subtypes. M. LOBO. *Univ. of Maryland Sch. of Med.*

10:35 **496.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

497. Sensory Deprivation and Brain Plasticity: Insights from Behavioral and Neuroimaging Studies of Deaf and Blind Individuals — CME

Tue. 8:30 AM - 11:00 AM — 29D

Chair: R. G. BOSWORTH
Co-Chair: M. DYE

Remarkably, the brain can reassign cortical functions when sensory input is atypical. Our understanding of this process in humans is based on literature that studies either deaf or blind individuals, typically focusing on one sensory modality. This panel of sensory deprivation experts brings together the wealth of knowledge gained from both deaf and blind populations, with the aim of disentangling common theoretical threads in research on cross-modal plasticity.

8:30 **497.01** Introduction.

8:35 **497.02** Imaging cross-modal plasticity in deaf adults using the event-related optical signal. M. DYE. *Univ. of Illinois at Urbana-Champaign.*

8:55 **497.03** Controlled and automatic orienting of visual attention in people with profound bilateral deafness. F. PAVANI. *Univ. of Trento.*

9:15 **497.04** Neural organization of auditory cortex in congenitally deaf adults: Vision, somatosensation, and altered perception. C. KARNS. *Univ. of Oregon.*

9:35 **497.05** The recruitment of visual motion area MT+ for auditory motion processing in early blind individuals. F. JIANG. *Univ. of Washington*.

9:55 **497.06** Cross-modal neuroplasticity associated with navigation skill in the early blind. L. MERABET. *Harvard Univ.*

10:15 **497.07** Executive function responses in pericalcarine cortex of congenitally blind individuals. M. BEDNY. *The Johns Hopkins Univ.*

10:35 **497.08** Closing Remarks.

SPECIAL LECTURE *San Diego Convention Center*

498. ● How Synthetic and Chemical Biology Will Transform Neuroscience — CME

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

Speaker: B. L. ROTH, *Univ. of North Carolina at Chapel Hill.*

One of the grand challenges for neuroscience research is to understand how biologically active small molecules (e.g. neurotransmitters, neuromodulators, and drugs) exert their actions at successive levels ranging from the atomic to ensembles of neuronal networks. This lecture will demonstrate how recent advances in chemical and synthetic biology technology have catalyzed new insights into bioactive small molecule actions. The lecture will show how atomic-level discoveries have ultimately led to transformative insights at the level of neuronal systems.

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

NANOSYMPOSIUM

499. Neurogenesis in the Adult Mammalian Brain

Theme A: Development

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

8:00 **499.01** The TLX signaling in neurogenesis. Y. SHI*; Q. QU; K. MURAI; G. SUN; P. YE; W. LI; G. ASUELIME; G. TSAI. *Beckman Res. Inst. of City of Hope, UCLA Sch. of Medicine, Harbor-UCLA Med. Ctr.*

8:15 **499.02** Regulation of neural stem cell activity by mitochondrial function. D. C. LIE*; K. STEIB; R. JAGASIA; B. EBERT. *Univ. of Erlangen, Helmholtz Ctr. Munich, F. Hoffmann-La Roche Ltd, CNS Discovery.*

8:30 **499.03** Diffusion barrier presence and function in mammalian neural stem cells. D. L. MOORE*; Y. BARRAL; S. JESSBERGER. *Univ. of Zurich, Brain Res. Inst., Inst. of Mol. Hlth. Sciences, ETH Zurich, Univ. of Zurich and ETH Zurich, ETH Zurich.*

8:45 **499.04** TLR9 signaling in microglia suppresses epilepsy-triggered aberrant neurogenesis in the adult hippocampus. T. MATSUDA*; Y. KATANO; A. M. ADEFUIN; N. MURAO; B. JULIANDI; T. KAWAI; S. AKIRA; K. NAKASHIMA. *Grad. Sch. of Med. Sciences, Kyushu Univ., Grad. Sch. of Biol. Sciences, Nara Inst. of Sci. and Technol., Grad. Sch. of Biol. Sciences, Nara Inst. of Sci. and Technol., Immunol. Frontier Res. Ctr.*

9:00 **499.05** Enhanced adult neurogenesis alters synaptic input to mature neurons. E. W. ADLAF*; N. Q. FARRUKH; J. I. WADICHE; L. OVERSTREET-WADICHE. *Univ. of Alabama At Birmingham.*

9:15 **499.06** Role of lkb1/strad in axon/dendrite polarization in newly generated neurons in the adult hippocampus. M. SHELLY*; S. RAO; S. GE. *Stony Brook Univ.*

9:30 **499.07** Wnt7a regulates multiple steps of neurogenesis. G. SUN*; Q. QU; K. MURAI; P. YE; Y. SHI. *City of Hope Beckman Res. Inst., Univ. of Illinois at Urbana-Champaign.*

9:45 **499.08** Neurogenesis and neurodevelopmental disorders. X. ZHAO*. *Univ. of Wisconsin-Madison.*

10:00 **499.09** HDAC3-mediated ubiquitination controls G2/M progression in adult neural stem/progenitor cells. Y. JIANG; J. HSIEH*. *UT Southwestern Med. Ctr.*

10:15 **499.10** A diametric mode of adult neurogenesis regulation via parvalbumin interneurons. J. SONG*; J. MOSS; D. HSU; C. ZHONG; J. SUN; G. SUN; K. M. CHRISTIAN; N. TONI; G. MING; H. SONG. *Johns Hopkins Univ., Univ. of North Carolina, Chapel Hill, Univ. of Lausanne, Johns Hopkins Univ., Tsinghua Univ.*

10:30 **499.11** Orphan nuclear receptor TLX inhibits BMP signaling to regulate neural stem cell fate specification. S. QIN*; Y. ZOU; W. NIU; C. ZHANG. *UT Southwestern Med. Ctr.*

10:45 **499.12** Clonal analysis with birthdating reveals multipotent radial neural stem cell behavior in the adult mouse hippocampus. M. A. BONAGUIDI*; R. STADEL; Y. NAMGUNG; T. KRIEGER; D. BERG; S. PARK; J. OH; J. PARK; G. MING; B. SIMONS; H. SONG. *Johns Hopkins, Univ. of Cambridge.*

11:00 **499.13** Links between TRIP8b and adult hippocampal neurogenesis in depression: Rodent and postmortem perspectives. S. YUN*; S. MUKHERJEE; Y. HAN; C. E. KANG; D. M. CHETKOVICH; A. J. EISCH. *UT Southwestern, Northwestern Univ.*

NANOSYMPOSIUM

500. Neural Differentiation and Disease Modeling Using Stem Cells or Reprogramming

Theme A: Development

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

8:00 **500.01** Specification and differentiation of human Medial Ganglionic Eminence cells from human Pluripotent stem cells under defined conditions. S. CHUNG*; T. KIM; R. YAO; J. CHO; A. VASUDEVAN; V. BOLSHAKOV; K. KIM. *McLean Hosp.*

8:15 **500.02** ● High content screen for compounds that modulate neurite outgrowth and retraction using human induced pluripotent stem cell derived neurons. A. G. BANG*; S. P. SHERMAN. *Sanford Burnham Inst. For Med. Res., Sanford Burnham Med. Res. Inst.*

8:30 **500.03** Molecular and functional characterisation of sensory neurons derived from human embryonic stem cells. G. T. YOUNG*; A. GUTTERIDGE; L. CAO; L. TEGG; H. FOX; A. WILBREY; P. WHITING; J. G. BILSLAND; E. B. STEVENS. *Pfizer Neusentis.*

8:45 **500.04** Control of neural stem cell differentiation and survival through manipulation of Musashi-mediated mRNA translation. M. MACNICOL*; A. MACNICOL. *UAMS, UAMS.*

9:00 **500.05** Nanofiber-mediated REST knockdown to direct neuronal transdifferentiation. S. CHEW*; P. RUJITANAROJ; W. LOW; J. KUANG; D. LEE; P. B. MESSERSMITH; J. K. Y. CHAN. *Nanyang Technological Univ., Nanyang Technological Univ., Northwestern Univ., Natl. Univ. of Singapore.*

9:15 **500.06** Developing disease-relevant neural cell models from induced pluripotent stem cells. C. Y. TAY*; S. KESAVAPANY; L. W. STANTON. *Genome Inst. of Singapore, GlaxoSmithKline R&D China, Singapore Res. Ctr.*

9:30 **500.07** Directly reprogrammed neural stem cells can be terminally differentiated but lack response to regional patterning factors. P. CAPETIAN*; L. AZMITIA; M. DÖBRÖSSY; M. KLETT; C. KLEIN. *Inst. of Clin. & Mol. Neurogenetics, Dept. of Stereotactic and Functional Neurosci.*

9:45 **500.08** Grafting of human iPS cells in hyperexcitable hippocampal tissue. M. S. ANDERSSON*; N. AVALIANI; A. TOFT SØRENSEN; M. LEDRI; P. KOCH; O. BRUSTLE; K. DEISSEROTH; M. KOKAIA. *Lund Univ., MIT, Univ. of Bonn, Stanford Univ.*

10:00 **500.09** Epigenetics, neural stem cells, and fetal alcohol spectrum disorders. M. RASTEGAR*. *Univ. of Manitoba.*

10:15 **500.10** Human iPSC-derived neurons reveal novel effects of a familial Alzheimer's disease (fAD) APP mutation and show cell fate-specific AD relevant phenotypes. C. R. MURATORE*; H. C. RICE; P. SRIKANTH; D. J. SELKOE; T. L. YOUNG-PEARSE. *Harvard Med. Sch.*

10:30 **500.11** Nitrosative stress-induced death in an isogenic human iPSC model of Parkinson's disease. S. D. RYAN*; N. DOLATABADI; X. ZHANG; M. AKHTAR; J. PARKER; F. SOLDNER; A. Y. ANDREYEV; R. JAENISCH; R. AMBASUDHAN; S. A. LIPTON. *Sanford Burnham Med. Res. Inst., Whitehead Inst. for Biomed. Res., Univ. of California San Diego.*

10:45 **500.12** Williams Syndrome: A closer look into the dish. T. CHAILANGKARN*; B. HRVOJ-MIHIC; M. C. N. MARCHETTO; L. STEFANACCI; D. YU; C. BARDY; L. DAI; J. R. KORENBERG; E. HALGREN; F. H. GAGE; U. BELLUGI; K. SEMENDEFERI; A. R. MUOTRI. *UCSD, The Salk Inst., Univ. of Utah.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 **500.13** Synaptic deficits in ipsc-derived neurons from phelan-mcdermid syndrome patients are rescued by igf1. O. SHCHEGLOVITOV*; O. SHCHEGLOVITOVA; M. YAZAWA; T. PORTMANN; R. SHU; V. SEBASTIANO; A. KRAWISZ; W. FROEHLICH; J. BERNSTEIN; J. HALLMAYER; R. DOLMETSCH. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ.*

11:15 **500.14** *In vitro* modeling of brain development using human neural stem cells extensively parallels *in vivo* development. L. DE LA TORRE-UBIETA*; J. L. STEIN; N. N. PARIKSHAK; D. LU; J. K. LOWE; E. WEXLER; D. H. GESCHWIND. *UCLA.*

NANOSYMPOSIUM

501. Motor Neuron Diseases: Preclinical Therapeutics

Theme C: Disorders of the Nervous System

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

8:00 **501.01** Pharmacological inhibition of Rho kinase improves motor function and survival in the SOD1(G93A) mouse model of ALS. L. TÖNGES; R. GÜNTHER; M. SUHR; J. JANSEN; A. BALCK; K. SAAL; E. BARSKI; T. NIENTIEDT; A. GÖTZ; J. C. KOCH; J. H. WEISHAUPT; M. W. SEREDA; U. HANISCH; M. BÄHR; P. LINGOR*. *Univ. of Göttingen, Max-Planck-Institute for Exptl. Med., Univ. of Göttingen, Univ. of Ulm, Univ. of Göttingen.*

8:15 **501.02** ● Nrf2 activation as novel therapeutic strategy for ALS and its neuroprotective mechanisms in astrocytes and motor neurons. M. KIAEI*; S. YADAV; M. A. ESMAEILI; K. T. LIBY; M. B. SPORN; M. F. BEAL. *Univ. of Arkansas for Med. Sci., Univ. of Arkansas for Med. Sci., Darmouth Med. Sch., Weill Med. Col. of Cornell Univ.*

8:30 **501.03** Orally-administered calpain inhibitor BDA-410 reduces ataxin-3 cleavage and alleviates neuropathology in a lentiviral mouse model of Machado-Joseph disease. A. SIMÕES; N. GONÇALVES; R. J. NOBRE; C. B. DUARTE; L. PEREIRA DE ALMEIDA*. *CNC - Ctr. For Neurosci. | Univ. of Coimbra, Fac. of Pharm. | Univ. of Coimbra, Fac. of Sci. and Technol. | Univ. of Coimbra.*

8:45 **501.04** Knocking-down Group I metabotropic glutamate receptors ameliorates survival and disease progression in SOD1G93A mice. G. BONANNO*; A. PULITI; M. MILANESE; M. MELONE; T. BONIFACINO; F. GIRIBALDI; F. CONTI. *Departemnt of Pharmacy, Sch. of Med. and Pharmacy, Univ. of Genoa, Univ. of Genoa, Univ. of Genoa, Mol. Genet. and Cytogenetics Unit, Univ. of Marche.*

9:00 **501.05** Activation of the brain's choroid plexus for leukocyte trafficking as a therapeutic approach for ALS. K. BARUCH*; G. KUNIS; M. SCHWARTZ. *Weizmann Inst. of Sci.*

9:15 **501.06** Muscle-specific excision of polyglutamine-expanded androgen receptor rescues survival and neuromuscular deficits in a mouse model of X-linked spinal & bulbar muscular atrophy. C. CORTES*; S. LI; L. LY; L. GUO; B. L. SOPHER; T. TSUNEMI; G. D. SHELTON; D. W. CLEVELAND; A. R. LA SPADA. *UCSD, Sanford Consortium for Regenerative Med., Univ. of California San Diego, Univ. of Washington.*

9:30 **501.07** Aav9-mediated sod1 downregulation improves survival in mouse models of amyotrophic lateral sclerosis. S. B. LIKHITE*; K. D. FOUST; D. L. SALAZAR; L. FERRAIUOLO; D. DITSWORTH; L. SCHMELZER; L. BRAUN; D. W. CLEVELAND; B. K. KASPAR. *Res. Inst. At Nationwide Children's Hosp., The Ohio State Univ., The Ohio State Univ., Univ. of California at San Diego.*

NANOSYMPOSIUM

502. Spinal Cord Injury: Therapeutic Strategies

Theme C: Disorders of the Nervous System

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

8:00 **502.01** Responsiveness and sensitivity of a novel upper limb impairment measure specific for traumatic tetraplegia: GRASSP version 1.0 benefits of a sensitive outcome for clinical trials. S. KALSI-RYAN*; M. FEHLINGS; M. VERRIER. *Univ. Hlth. Network, Univ. of Toronto.*

8:15 **502.02** Axonal sprouting in spinal cord transected rats by iron oxide nanoparticle implantation and magnetic field exposure. A. PAL*; R. MATHUR; S. JAIN. *All India Inst. of Med. Sciences, New Delhi, INDIA, All India Inst. of Med. Sciences, New Delhi, INDIA.*

8:30 **502.03** Delayed treatment with imatinib for spinal cord injury; Implications for clinical trials. J. S. KJELL*. *Karolinska Institutet.*

8:45 **502.04** The primate allogeneic transplantation of embryonic stem cell-derived neural stem/progenitor cells promoted functional recovery in common marmosets with spinal cord injury. H. IWAI*; H. ISHII; S. NISHIMURA; Y. KOBAYASHI; K. HORI; G. ITAKURA; K. HIKISHIMA; O. TSUJI; K. FUJIYOSHI; Y. TOYAMA; H. OKANO; M. NAKAMURA. *Keio University, Sch. of Med., Keio University, Sch. of Med., Central Inst. for Exptl. Animals, Saitama Social Insurance Hosp., Murayama Med. Center, Natl. Hosp. Organization.*

9:00 **502.05** The AMPA/kainate receptor antagonist topiramate improves recovery of function following unilateral cervical contusion injury in rats. M. S. BEATTIE*; A. LIN; J. R. HUIE; A. R. FERGUSON; J. C. BRESNAHAN. *Univ. Calif San Francisco.*

9:15 **502.06** Delayed TNF inhibitor therapy improves syndromic spinal cord injury: Results of a blinded-randomized dose-response and timing study of multivariate outcome in a preclinical model. A. R. FERGUSON*; J. HUIE; K. IRVINE; J. L. NIELSON; A. LIN; J. SACRAMENTO; J. C. BRESNAHAN; M. S. BEATTIE. *Brain and Spinal Injury Ctr. (BASIC), Univ. of California, Stanford Univ. Sch. of Med.*

9:30 **502.07** ● Visualizing syndromic outcomes of preclinical drug trials for cervical spinal cord injury. J. L. NIELSON*; J. R. HUIE; K. IRVINE; J. C. GENSEL; J. PAQUETTE; P. Y. LUM; G. E. CARLSSON; R. R. RATAN; M. S. BEATTIE; J. C. BRESNAHAN; A. R. FERGUSON. *Univ. of California San Francisco, Stanford Univ. Sch. of Med., Univ. of Kentucky, Ayasdi Inc., Stanford Univ., Burke Rehab Institute, Weill Cornell Med. Col.*

9:45 **502.08** Human Umbilical Cord Matrix Cell (HUCMC) mediated blood spinal cord barrier repair following spinal cord injury. A. M. BADNER*; R. VAWDA; M. FEHLINGS. *Toronto Western Hosp. Res. Inst., Univ. of Toronto, Univ. of Toronto.*

10:00 **502.09** Microarray gene analysis of rat spinal cord tissue treated with human albumin and 2-hydroxy oleic acid. J. S. TAYLOR*; I. GALÁN ARRIERO; M. MATA ROIG; P. ESCRIBÁ RUIZ; X. BUSQUETS; G. AVILA MARTÍN. *Hosp Nacional de Paraplejicos, Res. Fndn. of the Univ. Gen. Hosp. of Valencia, Cell Biomedicine, Univ. of the Balearic Islands.*

10:15 **502.10** Controlled delivery of sonic hedgehog improves behavioral function after spinal cord contusion in adult rats. B. M. RAUCK*; T. N. NOVOSAT; Y. WANG; M. OUDEGA. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:30 **502.11** Membrane fusion with poly-ethylene glycol improves the regenerative potential of the injured nervous system by limiting axon damage and by attenuating reactive astrocytosis. D. E. BROWN; M. L. BAER; R. V. MADIRAJU; R. J. COLELLO*. *Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

10:45 **502.12** Poly(trimethylene carbonate-co-caprolactone)'s nanomechanical properties promote axonal growth taming myelin inhibition. D. ROCHA*; L. R. PIRES; P. BRITES; A. PÊGO. *INEB - Inst. De Engenharia Biomédica, FEUP - Faculdade de Engenharia da Univ. do Porto, INEB - Inst. de Engenharia Biomédica, Nerve Regeneration group, IBMC - Inst. de Biologia Mol. e Celular.*

11:00 **502.13** Sustained, minimally invasive delivery of neurotrophin-3 to the injured rat spinal cord. I. ELLIOTT DONAGHUE*; M. S. SHOICHET. *Univ. of Toronto.*

11:15 **502.14** ● Acute treatment with the matrix metalloproteinase inhibitor GM6001 improves long-term locomotor and bladder function in a murine model of spinal cord injury. T. M. FANDEL*; A. TRIVEDI-MAHUVAKAR; K. GIMLIN; H. ZHANG; J. M. LEVINE; A. F. MARTINEZ; L. J. NOBLE-HAEUSSLEIN. *Univ. of California, San Francisco, Texas A & M Univ., Univ. of California, San Francisco.*

NANOSYMPOSIUM

503. Mood Disorders: Preclinical Studies and Animal Models

Theme C: Disorders of the Nervous System

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

8:00 **503.01** Manipulation of endogenous opioids with the novel compound RDC-2810 reverses depressive and cognitive symptoms in an interferon-alpha animal model of depression. C. K. CALLAGHAN*; S. M. O'MARA. *Trinity Col.*

8:15 **503.02** ● Vortioxetine modulates circadian rhythms as measured by rat wheel-running behavior and *in vitro* bioluminescence studies of mouse suprachiasmatic nucleus. L. WESTRICH*; C. SÁNCHEZ. *Fairleigh Dickinson Univ., Lundbeck Res. USA.*

8:30 **503.03** Serotonergic cell firing rates in the dorsal raphe nucleus are influenced by retinal function. C. R. JACKSON*; N. H. GREEN; D. G. MCMAHON. *Vanderbilt Univ., Vanderbilt Univ.*

8:45 **503.04** Brain-Derived Neurotrophic Factor (BDNF)-dependent oxidative stress produces vulnerability to depression. C. BECKER*; E. BOUVIER; F. BROUILLARD; J. MOLET; N. CRESTO; N. DOLIGEZ; D. CLAVERIE; C. RIVAT; C. BERNARD; J. BENOLIEL. *INSERM U.975 Pain Team, CNRS UPR-2301, INSERM UMR 1106.*

9:00 **503.05** ● Isoflurane anesthesia rapidly activates brain TrkB receptor signaling, regulates synaptogenesis and produces antidepressant-like effects in adult mice. T. P. RANTAMAKI*; H. ANTILA; P. SIPILÄ; J. LINDHOLM; R. GUIRADO; E. CASTRÉN. *Univ. Helsinki.*

9:15 **503.06** The role of melatonin in the photoperiodic programming of the serotonergic system and affective behaviors. N. H. GREEN*; D. G. MCMAHON. *Vanderbilt Univ., Vanderbilt Univ.*

9:30 **503.07** Quality management of magnetic resonance imaging guided repetitive transcranial magnetic stimulation (rTMS) for the treatment of major depression. B. KEPPLINGER*; B. SEDLNITZKY-SEMLER; S. EIGNER; P. KALINA; H. BARAN. *Karl Landsteiner Res. Institute, Mauer, SeneCura Neurorehabilitation Ctr., Neurolog. Department, Landesklinikum Mauer.*

9:45 **503.08** Characterization of CX614, an AMPAkine, as a fast onset antidepressant. H. M. JOURDI*; M. KABBAJ. *Florida State Univ.*

10:00 **503.09** ● Vortioxetine improves a reversal learning deficit in rats induced by serotonin depletion or chronic stress. D. A. MORILAK*; A. WALLACE; A. PEHRSON; C. SANCHEZ-MORILLO. *Univ. of Texas Hlth. Sci. Ctr., Lundbeck Res. USA.*

10:15 **503.10** ● Dextromethorphan produces antidepressant-like effects in mice. L. NGUYEN*; M. J. ROBSON; R. R. MATSUMOTO. *West Virginia Univ.*

10:30 **503.11** Different classes of antidepressants share the ability to increase dopamine and norepinephrine release in the bed nucleus of stria terminalis: A possible role in antidepressant therapy? E. CARBONI*; R. CADEDDU. *Univ. Cagliari.*

NANOSYMPOSIUM

504. Mood Disorders: Animal Models

Theme C: Disorders of the Nervous System

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

8:00 **504.01** A role for site specific β2-subunit containing nicotinic receptors in the control of stress and mood. Y. S. MINEUR*; G. M. FOTE; S. A. BLAKEMAN; S. ZHOU; M. R. PICCIOTTO. *Yale Univ. Sch. Med.*

8:15 **504.02** Implication of sperm miRNAs in the transgenerational effects of early traumatic stress in mammals. K. GAPP; J. BOHACEK; P. PELCZAR; A. BRUNNER; J. PRADOS; L. FARINELLI; I. M. MANSUY*. *University/Eth Zurich, Fasteris.*

8:30 **504.03** Role of piwi like proteins in stress induced neural and behavioural adaptations in mice. N. KHANDELWAL; P. SANT; S. KOOTAR; S. CHAKRAVARTY; A. KUMAR*. *CSIR-Centre for Cell. and Mol. Biol. (CCMB), CSIR-Indian Inst. of Chem. Technol. (IICT).*

8:45 **504.04** Raphe GABAergic neurons mediate top-down control of serotonin circuits during encoding of social threat. C. CHALLIS*; J. BOULDEN; A. VEERAKUMAR; J. ESPALLERGUES; S. G. BECK; O. BERTON. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*

9:00 **504.05** Homeostatic plasticity of midbrain dopamine neurons mediates resilience to severe social stress. A. K. FRIEDMAN*; J. J. WALSH; B. JUAREZ; D. CHAUDHURY; S. M. KU; J. FENG; J. WANG; X. LI; N. PAN; V. F. VIALOU; Z. YUE; K. DEISSEROTH; M. HAN. *Mount Sinai Sch. of Med., Mount Sinai Sch. of Med., Stanford.*

9:15 **504.06** Phasic firing-specific regulation of bdnf in vta-to-nac pathway is stress-contextual dependent. J. J. WALSH*; A. K. FRIEDMAN; H. SUN; S. M. KU; E. A. HELLER; B. JUAREZ; D. FERGUSON; M. MAZEI-ROBISON; S. A. GOLDEN; D. CHAUDHURY; D. J. CHRISTOFFEL; L. POMERANZ; J. M. FRIEDMAN; S. J. RUSSO; E. J. NESTLER; M. HAN. *Mount Sinai Sch. of Med., Rockefeller Univ.*

9:30 **504.07** ● Increased adult hippocampal neurogenesis is sufficient for antidepressant-like effects in a model of chronic stress. A. S. HILL*; R. HEN; A. SAHAY. *Columbia Univ., New York State Psychiatric Inst., Massachusetts Gen. Hosp., Harvard Stem Cell Inst., Harvard Med. Sch.*

9:45 **504.08** Targeted proteomic analyses reveal altered composition of synaptic microdomains in behaviorally depressed adult female cynomolgus macaques. S. L. WILLARD*; K. E. BORGMANN-WINTER; M. L. MACDONALD; C. A. SHIVELY; C. HAHN. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia, Wake Forest Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 **504.09** The antidepressant effects of ketamine are mediated through suppression of NMDA receptors and involve activation of mTOR as well as local synthesis of synapse associated proteins. L. YANG*; O. MILLER; J. J. HOUSTON; E. DELPIRE; B. J. HALL. *Tulane Univ., Tulane Univ., Vanderbilt Univ., Tulane Univ.*

10:15 **504.10** ADHD (Attention Deficit/Hyperactivity Disorder)-like behavior and disrupted synaptic plasticity in the caspase3 knockout mice. J. LO*; Y. WANG; J. LARSON; K. SCEARCE-LEVIE; M. SHENG. *Genentech Inc.*

10:30 **504.11** Co-administration of DNMT inhibitor and HDAC inhibitor expresses synergic anti-depression effects. Z. YUAN*; X. QI; M. GUADARRAMA; X. CAI. *Dept. of Physiology, Southern Illinois Univ.*

10:45 **504.12** Sub-amygdalar molecular underpinning for the pathogenesis of PTSD. A. JOSEPH; F. MUSARRAT; S. ANDRES; J. WITTLIFF; Y. TANG*. *LSUHSC, Univ. of Louisville.*

NANOSYMPOSIUM

505. Medium Spiny Neuron Diversity and Striatal Function

Theme D: Sensory and Motor Systems

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

8:00 **505.01** Dopamine D2 receptors control the dynamic balance of basal ganglia circuitry. F. DELMONDES DE CARVALHO*; M. CAZORLA; M. O. CHOHAN; M. SHEGDA; N. CHUHMA; S. RAYPORT; S. E. AHMARI; H. M. MOORE; C. KELLENDONK. *Columbia Univ. / NYSPI.*

8:15 **505.02** ● Circuit and behavioral significance of corticostriatal mGluR5 signaling for OCD-like behaviors in mice. K. K. ADE*; Y. WAN; H. HAMANN; A. CONTRACTOR; S. D. VAN HOOSER; W. C. WETSEL; P. J. CONN; N. CALAKOS. *Duke Univ., Northwestern Univ., Brandeis Univ., Duke Univ., Vanderbilt Univ.*

8:30 **505.03** Behavioral outcomes of social defeat stress are mediated by specific nucleus accumbens neuronal subtypes. T. C. FRANCIS*; R. CHANDRA; J. M. BROOKS; E. FINKEL; J. D. LENZ; P. O'DONNELL; M. LOBO. *Univ. of Maryland, Baltimore, Univ. of Maryland, Baltimore.*

8:45 **505.04** Spatial distribution and functional anatomy of dopamine D1R- and D2R-expressing medium-sized spiny neurons differ along the striatal rostro-caudal axis. G. GANGAROSSA*; J. ESPALLERGUES; P. MAILLY; D. DE BUNDEL; A. DE KERCHOVE D'EXAERDE; D. HERVÉ; J. GIRAULT; P. KRIEGER; E. VALJENT. *Inst. de Genomique Fonctionnelle, Univ. Pierre et Marie Curie, Univ. Libre de Bruxelles, Inst. du Fer à Moulin, Karolinska Institutet.*

9:00 **505.05** Linking abnormal behavioral regulation with alterations in striatal neurotransmission in the Neuroligin3 mouse model of autism. M. V. FUCCILLO*; P. E. ROTHWELL; S. J. HAYTON; A. DARVISHZADEH; S. MAXEINER; B. LIM; F. KHAN; T. C. SÜDHOF; R. C. MALENKA. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ.*

9:15 **505.06** Activation of the dopamine D1-D2 receptor heteromer abolishes the acquisition and expression of cocaine-induced conditioned place preference: A potential role for DARPP-32. M. SHEN*; M. L. PERREAULT; A. HASBI; B. F. O'DOWD; S. R. GEORGE. *Univ. of Toronto, Ctr. for Addiction and Mental Hlth.*

9:30 **505.07** Mechanisms involved in controlling striatal synchrony during dopamine depletion. D. SRIRAMAN*; K. T. BLACKWELL. *George Mason Univ., George Mason Univ.*

9:45 **505.08** Excitatory synapses in nucleus accumbens core and shell are differentially potentiated by cocaine cue-induced relapse and extinction. C. D. GIPSON*; Y. M. KUPCHIK; D. ROBERTS-WOLFE; H. SHEN; P. W. KALIVAS. *Med. Univ. of South Carolina, Peking Univ.*

10:00 **505.09** Activation of muscarinic M4- type receptors increases the excitability of direct pathway neurons through modulation of CaV1-channels. T. HERNANDEZ FLORES*; O. HERNANDEZ GONZALEZ; A. PEREZ BURGOS; M. A. ARIAS GARCÍA; M. B. PEREZ RAMIREZ; E. LARA GONZALEZ; G. A. PRIETO; A. FIGUEROA; E. GALARRAGA; J. BARGAS. *Inst. De Fisiologia Celular. Div. Neurociencias. Univ. Nacional Au.*

NANOSYMPOSIUM

506. Inflammatory Reflex Control

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

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

8:00 **506.01** ● Brain muscarinic acetylcholine receptor-dependent signaling controls peripheral inflammation. V. PAVLOV*; H. SILVERMAN; M. ROSAS-BALLINA; M. DANCHO; M. OCHANI; C. VEITH; S. L. DEWEY; Y. AL-ABED; E. GOLANOV; K. J. TRACEY. *The Feinstein Inst. for Med. Res., The Feinstein Inst. for Med. Res., The Feinstein Inst. for Med. Res., The Feinstein Inst. for Med. Res., North Shore Univ. Hosp.*

8:15 **506.02** ● Single-pulse vagus nerve stimulation in rodents provides prolonged protection against systemic inflammation in endotoxemia and indomethacin-induced intestinal lesions. Y. LEVINE*; A. CARAVACA; M. FALTYS; T. ARNOLD; R. ZITNIK. *Setpoint Med. Corp, Setpoint Med. Corp.*

8:30 **506.03** ● Medial septum stimulation regulates serum cytokine release. E. V. GOLANOV*; H. SILVERMAN; M. DANCHO; A. REGNIER-GOLANOV1; M. OCHANI; Y. LEVINE; W. HANES; S. CHAVAN; K. J. TRACEY; V. A. PAVLOV. *Feinstein Inst. For Med. Res., Feinstein Inst. For Med. Res.*

8:45 **506.04** Neuronal regulation of antigen trafficking in peripheral lymph nodes. W. HANES*; S. S. CHAVAN; Y. A. LEVINE; P. S. OLOFSSON; K. J. TRACEY. *The Feinstein Inst. For Med. Res., Stony Brook Univ.*

9:00 **506.05** ● Vagus nerve stimulation upregulates molecules in the immunological synapse and increases interaction between ChAT+ T cells and dendritic cells. P. S. OLOFSSON*; M. OSWALD; Y. A. LEVINE; B. LU; W. HANES; O. BLOOM; S. S. CHAVAN; U. ANDERSSON; B. DIAMOND; P. GREGERSEN; K. J. TRACEY. *The Feinstein Inst. For Med. Res., Setpoint Med. Corp., Karolinska Institutet.*

9:15 **506.06** No vagal influence on the immune response in dextran sodium sulfate (DSS)-induced colitis. C. CAILOTTO*; B. J. OLIVIER; L. M. M. COSTES; J. VAN DER VLIET; F. HILBERS; G. E. BOECKXSTAENS; W. J. DE JONGE. *Academic Med. Ctr., Sanquin Res. and Landsteiner Lab., Univ. Hosp. Leuven, TARGID.*

9:30 **506.07** A forebrain-immune cell pathway for the maintenance of CNS immune tolerance. D. A. BROWN*; M. G. MOHAMMAD; V. W. W. TSAI; M. J. RUITENBERG; M. HASSANPOUR; P. H. HART; S. N. BREIT; P. E. SAWCHENKO. *Univ. of NSW, St Vincent's Hosp., The Univ. of Queensland, Telethon Inst. for Child Hlth. Res., The Salk Inst. for Biol. Studies.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

NANOSYMPOSIUM

507. Perception, Attention, and Working Memory

Theme F: Cognition and Behavior

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

8:00 **507.01** Neural correlates of shifting representational states in short-term memory. D. E. NEE*; J. JONIDES. *Univ. of California, Berkeley, Univ. of Michigan.*

8:15 **507.02** Transition from sensory to working memory representations along the primate dorsal visual pathway. D. MENDOZA-HALLIDAY*; S. TORRES; J. MARTINEZ-TRUJILLO. *McGill Univ.*

8:30 **507.03** Slow oscillations reflect top-down updating of the contents of visual working memory. N. MYERS*; M. G. STOKES; L. WALTHER; A. C. NOBRE. *Oxford Univ., Oxford Univ.*

8:45 **507.04** Low frequency oscillations recorded with MEG reflect both prospective and retrospective selection in a working memory task, and reveal cognitive control networks. G. WALLIS*; M. STOKES; H. COUSIJN; M. WOOLRICH; A. BAKER; H. LUCKHOO; A. NOBRE. *Oxford Univ., OHBA, Univ. of Oxford, Dept. of Psychiatry, Oxford Univ.*

9:00 **507.05** Understanding the representation and precision of transparent motion information during visual short-term memory with fMRI pattern classification. A. C. RIGGALL*; B. R. POSTLE. *Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison.*

9:15 **507.06** Active representations of individual items in short-term memory: A matter of attention, not retention. J. J. LAROCQUE*; A. C. RIGGALL; S. M. EMRICH; B. R. POSTLE. *UW Madison, UW Madison, Brock Univ., UW Madison.*

9:30 **507.07** Levels of representations in verbal working memory. N. ROSE*; F. CRAIK; B. BUCHSBAUM. *Rotman Res. Inst. at Baycrest Ctr.*

9:45 **507.08** Causal evidence for a focus of attention in working memory. N. ZOKAEI*; S. MANOHAR; M. HUSAIN; E. FEREDOSES. *Oxford Univ., Univ. Col. London, Reading Univ.*

NANOSYMPOSIUM

508. Learning and Memory: Epigenetics

Theme F: Cognition and Behavior

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

8:00 **508.01** The transcriptional co-repressor SIN3A regulates hippocampal synaptic plasticity via Homer1/mGluR5. H. SCHOCH; M. S. BRIDI; C. FLORIAN; S. G. POPLAWSKI; J. D. HAWK; T. G. ABEL*. *Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. Paul Sabatier, Univ. of Pennsylvania, Yale Univ., Univ. of Pennsylvania.*

8:15 **508.02** Genomic targets, and histone acetylation and gene expression profiling of neural HDAC inhibition. J. P. LOPEZ-ATALAYA; S. ITO; L. M. VALOR; E. BENITO; A. BARCO*. *Inst. De Neurociencias (UMH-CSIC).*

8:30 **508.03** DNA methylation controls associative reward learning. J. J. DAY*; D. CHILDS; M. C. GUZMAN-KARLSSON; M. KIBE; J. MOULDEN; E. SONG; A. TAHIR; D. SWEATT. *UAB, UAB.*

8:45 **508.04** The neuron-specific chromatin regulatory subunit BAF53b is necessary for epigenetic regulation of synaptic plasticity and memory. A. VOGEL-CIERNIA*; D. P. MATHEOS; R. BARRETT; E. A. KRAMAR; S. AZZAWI; C. N. MAGNAN; M. ZELLER; R. DANG; M. CHABRIER; A. H. BABAYAN; G. R. CRABTREE; P. BALDI; G. LYNCH; M. A. WOOD. *Univ. of California, Irvine, Oregon Hlth. and Sci. Univ., Univ. of California, Irvine, Univ. of California, Irvine, Stanford.*

9:00 **508.05** Epigenetic priming of memory reconsolidation to attenuate remote fear memories. J. GRAFF*; N. JOSEPH; M. E. HORN; J. MENG; A. SAMIEI; J. SEO; D. REI; A. W. BERO; F. WAGNER; E. HOLSON; S. J. HAGGARTY; J. XU; R. H. MACH; L. TSAI. *MIT, Broad Inst., Massachusetts Gen. Hosp., Washington Univ. Sch. of Med.*

9:15 **508.06** ● Analysis of the unique roles of individual hdacs in behavior and synaptic plasticity. L. M. MONTEGGIA*. *UT Southwestern Med. Ctr.*

9:30 **508.07** Histone acetyltransferase activity regulates fear memory consolidation and memory-related synaptic plasticity in the lateral amygdala. G. E. SCHAFE*. *Yale Univ.*

9:45 **508.08** Cis-regulatory epigenome mappings in human and non-human primate prefrontal cortex. S. AKBARIAN*. *Icahn Sch. of Med. At Mount Sinai.*

10:00 **508.09** Pervasive neuronal non-CpG methylation in the adult mammalian brain. Y. SU*; J. U. GUO; J. SHIN; B. XIE; C. ZHONG; J. SHIN; G. MING; Y. GAO; H. SONG. *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.*

10:15 **508.10** Shaping adult phenotypes through early life environments. I. C. WEAVER*. *Dalhousie Univ.*

10:30 **508.11** Epigenetic mechansims in neurodegenerative Diseases. A. FISCHER*. *Univ. Goettingen/Dzne.*

10:45 **508.12** Neuron-specific nucleosome remodeling: A missing link in our understanding of epigenetic mechanisms underlying memory processes. M. A. WOOD*. *Univ. Calif, Irvine.*

11:00 **508.13** Role of TET1 and 5-hydroxymethylcytosine in cocaine action. J. FENG*; K. E. SZULWACH; V. VIALOU; J. HUYNH; N. SHAO; T. LE; D. FERGUSON; J. KOO; P. KENNEDY; C. DIAS; H. SONG; P. CASACCIA; G. FAN; L. SHEN; P. JIN; E. NESTLER. *Mount Sinai Sch. of Med., Emory Univ. Sch. of Med., UCLA, Johns Hopkins Univ. Sch. of Med.*

POSTER

509. Cell Migration: Cellular Dynamics

Theme A: Development

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

8:00 A1 **509.01** Developmental origin and dynamics of Hoxb8 microglia. D. VAN DEREN*, JR; B. XU; M. ECONOMO; M. WACHOWIAK; P. TVRDIK; G. SPANGRUDE; M. CAPECCHI. *Univ. of Utah.*

9:00 A2 **509.02** Hoxb8-positive microglia have distinct developmental and physiological properties. S. DE*; N. NAGARAJAN; B. XU; E. PEDEN; P. TVRDIK; M. CAPECCHI. *Univ. of Utah, Howard Hughes Med. Inst., Univ. of Utah.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 A3 **509.03** New function of synapses: Synaptic input as a directional cue for migrating interneuron precursors. A. K. WEFERS*; C. HABERLANDT; J. J. L. VAN DER WANT; C. STEINHÄUSER; K. SCHILLING; R. JABS. *Inst. of Anatomy, Univ. of Bonn, Inst. of Cell. Neurosciences, Univ. of Bonn, Univ. Med. Ctr. Groningen, Univ. of Groningen.*

11:00 A4 **509.04** Origin and migration of GnRH neurons in early human embryonic development. F. CASONI*; F. LUZZATI; F. COLLIER; V. PREVOT; P. GIACOBINI. *Inserm, Jean-Pierre Aubert Res. Center, U837, Neurosci. Inst. Cavalieri Ottolenghi, Gynaecology Service, Ctr. Hospitalier of Lille, Hosp. Jeanne de Flandre, INSERM, Jean-Pierre Aubert Res. Center, U837.*

8:00 A5 **509.05** Negr1 is required for transition of migrating pyramidal neurons from layer V to layer II/III of the mouse cerebral cortex. J. SZCZURKOWSKA*; F. PISCHEDDA; M. SCHÄFER; G. PICCOLI*; L. CANCEDDA*. *Inst. Italiano Di Tecnologia, Univ. of Milan, Univ. Med. Ctr. of Mainz.*

9:00 A6 **509.06** Dorsal migration and formation of the secondary, permanent chain of sympathetic ganglia as revealed by confocal time-lapse analysis in chick. J. C. KASEMEIER*; F. LEFCORT; P. M. KULESA. *Stowers Inst., Montana State Univ., Stowers Inst.*

10:00 A7 **509.07** Dynamics of oligodendrocyte turnover and myelination in humans. M. YEUNG*; M. SALEHPOUR; S. ZDUNEK; S. BERNARD; O. BERGMANN; K. ALKASS; G. POSSNERT; H. DRUID; L. BRUNDIN; J. FRISÉN. *Karolinska Institutet, Dept. of Cell and Mol. Biol., Uppsala Univ., Univ. of Lyon, Karolinska Institutet, Karolinska Institutet, Karolinska Univ. Hosp.*

11:00 A8 **509.08** Mitochondrial manipulations interfere with interneuron migration. E. G. LIN-HENDEL*; G. CHO; M. J. MCMANUS; D. C. WALLACE; S. A. ANDERSON; J. A. GOLDEN. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Brigham and Women's Hospital, Harvard Med. Sch., Children's Hosp. of Philadelphia, Univ. of Pennsylvania.*

8:00 A9 **509.09** Excitatory cortical neurons are classified into two distinct groups according to their initial axonal direction. Y. HATANAKA*; K. YAMAUCHI; T. NAMIKAWA; Y. KAWAGUCHI. *Natl. Inst. for Physiological Sci., CREST, JST, Grad Sch. of Frontier Biosciences, Osaka Univ., Grad Sch. of Biol. Sciences, Nara Inst. of Sci. and Technol.*

9:00 A10 **509.10** Sp9 is required for the normal migration of cortical interneurons. Q. ZHANG*; Y. ZHANG; Z. LIU; J. LI; Z. YANG. *Inst. of Brain Sci. ,Fudan Univ.*

10:00 A11 **509.11** ▲ Cytoskeleton arrangement, associated proteins and their relationship with the migration/invasion pattern of culture pituitary adenoma cells. D. AVILA*; M. MENDOZA; A. ORTIZ-PLATA; E. AGUIRRE-BENÍTEZ; M. GONZÁLEZ DEL PLIEGO. *Ctr. For Res. and Advanced Studies I.P.N. (CINVESTAV), Nacional Inst. of Neurol. and Neurosurg. "Manuel Velazco Suaréz", Autonomous Natl. Univ. of Mexico.*

11:00 A12 **509.12** Biochemical and morphological characterization of A2BP1 in the neuronal tissue. K. NAGATA*; N. HAMADA; H. ITO; I. IWAMOTO; M. MIZUNO; R. MORISHITA; Y. INAGUMA; H. TABATA. *Inst. For Developmental Research, Aichi Human Service Ctr.*

POSTER

510. Neuronal Differentiation: Mechanisms I

Theme A: Development

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

8:00 A13 **510.01** Modulation of mouse hippocampal neurogenesis by cyclic nucleotide-gated channels. M. V. PODDA; R. PIACENTINI; S. A. BARBATI; A. MASTRODONATO; D. PUZZO; M. D'ASCENZO*; L. LEONE; C. GRASSI. *Catholic Univ., Univ. of Catania.*

9:00 A14 **510.02** Role of γRIMs in the regulation of neuronal arborization. K. MICHEL*; A. OPRISOREANU; E. ALVAREZ-BARON; C. HOOGENRAAD; S. FRANKEN; A. BECKER; S. SCHOCH. *Univ. Bonn, Inst. of Neuropathology, Univ. Utrecht, Fac. of Science, Dept. of Cell Biol., Univ. Bonn, Inst. of Biochem. and Mol. Biol.*

10:00 A15 **510.03** Prox1 regulates the migration and maturation of caudal ganglionic eminence-derived cortical interneurons. G. MIYOSHI*; A. YOUNG; T. KARAYANNIS; M. MCKENZIE CHANG; T. PETROS; A. LAVADO; T. IWANO; H. TANIGUCHI; M. NAKAJIMA; J. Z. HUANG; N. HEINTZ; F. MATSUZAKI; G. OLIVER; R. MACHOLD; G. FISHELL. *New York Univ. SoM, St. Jude Children's Res. Hosp., RIKEN Ctr. for Developmental Biol., Cold Spring Harbor Lab., The Rockefeller Univ.*

11:00 A16 **510.04** Erbb4 gene expression is required for normal cochlear nucleus morphology. K. T. YEE*. *Univ. of Mississippi Med. Ctr.*

8:00 A17 **510.05** Length extension in FMRP KH-2 domain variable loop and neuronal differentiation. L. A. HADDAD*; F. J. VELLOSO; A. B. SAONA-MARÍN; J. C. CORREA; T. T. S. D. GOMES; H. ULRICH; L. R. G. BRITTO. *Univ. Sao Paulo, Univ. de São Paulo, Univ. de São Paulo, Univ. de São Paulo.*

9:00 A18 **510.06** FoxD4 and neural development. J. H. SHERMAN*; M. FRALISH; B. KARPINSKI-OAKLEY; T. M. MAYNARD; S. A. MOODY; A. S. LAMANTIA. *The George Washington Univ.*

10:00 A19 **510.07** TxnRd2 imbalance during critical stages in development results in changes in mitochondrial distribution and neurite outgrowth. A. FERNANDEZ*; T. MAYNARD; D. MEECHAN; B. OAKLEY; A. LAMANTIA. *The George Washington Univ., The George Washington Univ., The George Washington Univ., The George Washington Univ.*

11:00 A20 **510.08** Specificity of proneural basic helix-loop-helix transcription factors in retinal development. T. J. KACZYNSKI*; R. RUONALA; X. MU. *SUNY Buffalo, SUNY Buffalo, SUNY Buffalo, SUNY Buffalo, SUNY Buffalo.*

8:00 A21 **510.09** TRIM32-dependent microRNA activation is necessary for differentiation of neural stem cells. S. NICKLAS*; A. HILLJE; I. MENZL; J. C. SCHWAMBORN. *Luxembourg Ctr. For Systems Biomedicine, ZMBE, Inst. of Cell Biol.*

9:00 A22 **510.10** Dissecting a spatio-temporal Rho GTPase signaling network regulating neuronal growth cone extension. G. AZARIAS*; M. BAGONIS; L. FUSCO; G. DANUSER; O. PERTZ. *Dept. of Biomedicin, Dept. of Cell Biol.*

10:00 A23 **510.11** Osteopontin is expressed by the largest retinal ganglion cells (alpha RGCs) and causes RGC enlargement. M. QIAO*; X. DUAN; J. R. SANES. *Harvard Univ., Harvard Univ.*

11:00 A24 **510.12** The ubiquitin ligase Praja1 reduces NRAGE expression and inhibits neuronal differentiation of PC12 cells. J. TEUBER*; B. MUELLER; R. FUKABORI; D. LANG; A. ALBRECHT; O. STORK. *Otto-von-Guericke-University Magdeburg, Ctr. for Behavioural Brain Sci.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 A25 **510.13** MicroRNAs in neurite outgrowth and maturation of midbrain neurons. A. ROSER*; L. TÖNGES; R. HALDER; J. DYCZKOWSKI; M. BÄHR; A. FISCHER; P. LINGOR. *Univ. Med. Göttingen, DFG Res. Ctr. Nanoscale Microscopy and Mol. Physiol. of the Brain (CNMPB), Univ. Med. Göttingen, 3Göttingen Grad. Sch. for Neuroscience, Biophysics and Mol. Biosci. (GGNB), German Ctr. for Neurodegenerative Dis. (DZNE), Helmholtz Assn.*

9:00 A26 **510.14** TRIM32 dependent transcription in adult neural progenitors regulates neuronal differentiation and olfactory learning. M. A. PAVLOU*; A. HILLJE; E. BECKMANN; M. WORLITZER; L. BAHNASSAWY; L. LEWEJOHANN; T. PALM; J. SCHWAMBORN. *Luxembourg Ctr. For Systems Biomedicine, ZMBE Inst. of Cell Biol., ZMBE, Inst. of Cell Biol., Westfälische Wilhelms-Universität Münster, Dept. of Behavioural Biol.*

10:00 B1 **510.15** Contributions of bHLH transcription factors to dopaminergic and neuroendocrine differentiation in the zebrafish ventral diencephalic Orthopedia expressing precursor domain. M. RATH*; W. DRIEVER. *Univ. of Freiburg.*

11:00 B2 **510.16** Maintenance DNA methyltransferase DNMT1 controls neuronal differentiation of late-gestational neural stem cells. H. NOGUCHI*; M. NAMIHIRA; T. SANOSAKA; K. TSUJIMURA; Y. FUKAO; K. IGARASHI; A. KIMURA; K. NAKASHIMA. *Kyushu Univ., Nara Inst. of Sci. and Technol., AIST, Nara Inst. of Sci. and Technol., Natl. Inst. of Hlth. Sci.*

8:00 B3 **510.17** The role of N-cadherin cytoplasmic terminal fragment in modulating beta-catenin activity during brain development. M. WEN*; M. WANG; C. TAI. *Inst. of Mol. Biology, Academia Sinica, Grad. Inst. of Life Science, Natl. Def. Med. Ctr.*

9:00 B4 **510.18** ● Evidence for the involvement of DNA polymerase β in the regulation of neuronal energy metabolism. M. M. MISIAK*; P. SYKORA; D. CROTEAU; M. P. MATTSON; V. A. BOHR. *NIH/National Inst. On Aging, NIH/ National Inst. on Aging.*

POSTER

511. Neuronal Differentiation: Mechanisms II

Theme A: Development

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

8:00 B5 **511.01** Molecular microdomains of germinative epithelium in mouse cerebellum generate different clusters of cerebellar cortical neurons. R. GARCIA-LOPEZ*; A. POMBERO; J. HOHMANN; C. THOMPSON; K. GLATTFELDER; V. MENON; W. WAKEMAN; M. HAWRYLYCZ; C. DANG; S. MARTINEZ. *Inst. Neurociencias, Allen Inst. for Brain Science,.*

9:00 B6 **511.02** Making the match: How are postsynaptic receptors paired with presynaptic transmitters? D. R. HAMMOND-WEINBERGER*; N. C. SPITZER. *UCSD, Kavli Inst. for Brain and Mind.*

10:00 B7 **511.03** Regulation of p53 during neuronal differentiation. S. GHASSEMIFAR*; S. MENDRYSA. *Purdue Univ.*

11:00 B8 **511.04** Regulation of retinal ganglion cell fate specification and differentiation by miR-23a and miR-374 during retinal development. A. VAZHANTHODI*; S. SREEKANTH; M. S. DIVYA; T. S. DIVYA; S. B. DHANESH; C. SUBASHINI; V. ANI DAS; J. JAMES. *RAJIV GANDHI CENTRE FOR BIOTECHNOLOGY, RAJIV GANDHI CENTRE FOR BIOTECHNOLOGY.*

8:00 B9 **511.05** Transcription factor network specifying inhibitory and excitatory neurons in the dorsal spinal cord. M. D. BORROMEO*; D. MEREDITH; D. S. CASTRO; K. C. TUNG; F. GUILLEMOT; J. E. JOHNSON. *UT Southwestern Med. Ctr., Inst. Gulbenkian de Ciência, MRC Natl. Inst. for Med. Res.*

9:00 B10 **511.06** Selective expression and developmental impact of the Met receptor tyrosine kinase in B6 subgroup of serotonin neurons. H. WU*; S. CHOI; K. KIKUMA; E. DENERIS; P. LEVITT. *USC, USC, Case Western Reserve Univ.*

10:00 B11 **511.07** Neurod1/2/6 regulate hippocampal pyramidal neuron differentiation and survival. O. GRISHINA*; I. BORMUTH; K. YAN; T. YONEMASU; S. GOEBBELS; K. A. NAVE; M. H. SCHWAB; V. TARABYKIN. *Charite - Med. Univ. of Berlin, Max Planck Inst. of Exptl. Med.*

11:00 B12 **511.08** ▲ Nato3 induces the expression of key DA neuron markers in a regionally and temporally specific manner within the developing CNS. J. L. STRAIGHT; D. PETERSON; M. K. TAYLOR*. *Grand Valley State Univ., Grand Valley State Univ.*

8:00 B13 **511.09** *In vitro* generation of human cortical interneurons for transcriptome *analysis.* J. L. CLOSE*; S. YAO; S. ANDERSON; R. DOLMETSCH. *Allen Inst. For Brain Sci., Allen Inst. For Brain Sci., Univ. of Pennsylvania, Allen Inst. For Brain Sci.*

9:00 B14 **511.10** Toll like receptor 5 regulates adult neurogenesis through modulating neural stem cell proliferation and differentiation in hippocampus. S. CHOI; K. SEONG; M. KIM; J. YANG; M. PARK; J. JUNG; W. KIM*. *Med. Res. Ctr. For Biomineralization Disordersschool of Dentistry, Chon.*

10:00 B15 **511.11** Differential regulation of histaminergic neurons by dopaminergic signaling pathways in zebrafish larval brains. Y. CHEN*; P. PANULA. *Univ. of Helsinki.*

11:00 B16 **511.12** Study of the basal forebrain in LIS1 mutant mouse. A. POMBERO*; R. GARCIA-LOPEZ; O. REINER; R. TABARES-SEISDEDOS; S. MARTINEZ. *Inst. De Neurociencias, 2- Department of Mol. Genet. Weizmann Inst., UVEG-UMH-CIBERSAM, Dept. of Medicine, Univ. of Valencia.*

8:00 B17 **511.13** RNA Binding Protein Sfpq is required for the expression of neuron-specific long pre-mRNAs essential for brain development. A. TAKEUCHI*; K. IIDA; K. NINOMIY; M. ITO; K. OHNO; M. HAGIWARA. *Kyoto Univ. Grad. Sch. of Med., Nagoya Univ. Grad. Sch. of Med.*

9:00 B18 **511.14** En1 and Pitx3 interplay in dopaminergic subset-specification. J. VEENVLIET*; M. T. M. ALVES DOS SANTOS; W. M. KOUWENHOVEN; L. VON OERTHEL; J. L. LIM; A. J. A. VAN DER LINDEN; M. J. A. GROOT KOERKAMP; F. C. P. HOLSTEGE; M. P. SMIDT. *Ctr. For Neuroscience, SILS, Univ. of Amsterdam, Rudolf Magnus Institute, Dept. of Neurosci. and Pharmacology, UMC Utrecht, Mol. Cancer Research, UMC Utrecht.*

10:00 B19 **511.15** Role of notch pathway in development and survival in chronic hypoxia. P. AZAD*; J. BROPHY; G. HADDAD. *Univ. of California San Diego, Univ. of California San diego, Univ. of California San diego.*

11:00 B20 **511.16** DNA methylation profiling of human cortical GABAergic neurons revealed by a novel flow cytometry-based nuclei separation approach. A. KOZLENKOV*; S. RUDCHENKO; M. WEGNER; M. BARBU; M. BIBIKOVA; Y. HURD; S. DRACHEVA. *Mount Sinai Sch. of Med., James J. Peters VA Med. Ctr., Hosp. for Special Surgery, Inst. für Biochemie, Illumina, Inc., Mount Sinai Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 B21 **511.17** Neuronal insulin regulated nestin expression when compared to IGF-1 in neuron cell cultures obtained from stem cells of fetal rat brain. R. SCHECHTER*; K. E. MILLER. *Oklahoma State Univ. CHS.*

9:00 B22 **511.18** Retinal pigment epithelium is a Notch signaling niche in mouse retina. T. HA; S. KIM; J. HATAKEYAMA; K. SHIMAMURA; Y. KONG; J. KIM*. *Korea Advanced Inst. Sci. & Technol., Kumamoto Univ., Seoul Natl. Univ.*

10:00 B23 **511.19** Gene coexpression analysis identifies a molecular signature of migrating GABAergic neurons in developing human neocortex. C. S. RAJU*; A. STANCO; J. L. R. RUBENSTEIN; M. C. OLDHAM. *Univ. of California, San Francisco, Univ. of California San Francisco.*

11:00 B24 **511.20** *In vitro* neurotrophic properties of suberoylanilide hydroxamic acid (SAHA), a pan histone deacetylase inhibitor. S. SHUKLA*; B. L. TEKWANI; L. A. WALKER. *Sch. of Pharm., NCNPR, Sch. of Pharm.*

8:00 B25 **511.21** An alternative splicing factor Celf4 is required for early retinal neuronal differentiation. A. R. BANDAY; R. KANADIA*; S. CONGDON. *Univ. of Connecticut.*

9:00 B26 **511.22** The RNA-binding protein motif protein 3 (RBM3) regulates the LIN28-let-7 axis and neural differentiation. A. GROMOVA; C. SPEVAK; J. PILOTTE; P. VANDERKLISH*. *Scripps Resch Inst., Mem. Sloan-Kettering Cancer Ctr.*

10:00 B27 **511.23** VEGF-C/VEGFR3 signaling in adult hippocampal neural stem/progenitor cells and response to physical exercise. J. HAN*; K. BAKER; N. FOURNIER; C. CALVO; R. DUMAN; A. EICHMANN; J. THOMAS. *Yale Univ., Yale Univ., Univ. Pierre et Marie Curie-Paris 6, Yale Univ.*

11:00 B28 **511.24** Functional roles and regulation of PTPs during neuronal differentiation. B. HAN*; S. KIM; W. KIM; K. BAE; S. LEE. *Korea Res. Institue of Biosci. and Biotech.*

8:00 B29 **511.25** Global reconfiguration of neuronal and glial DNA methylation during mammalian brain development. E. A. MUKAMEL*; R. LISTER; J. R. NERY; M. URICH; C. A. PUDDIFOOT; N. D. JOHNSON; J. LUCERO; Y. HUANG; A. J. DWORK; M. D. SCHULTZ; M. YU; J. TONI-FILIPPINI; W. A. PASTOR; H. HEYN; S. HU; J. C. WU; A. RAO; M. ESTELLER; C. HE; F. G. HAGHIGHI; T. J. SEJNOWSKI; J. R. ECKER; M. M. BEHRENS. *Salk Inst. for Biol. Studies, UCSD, The Univ. of Western Australia, Salk Inst., Salk Inst., La Jolla Inst. for Allergy and Immunol. and Sanford Consortium for Regenerative Med., Columbia Univ. and The New York State Psychiatric Inst., Columbia Univ., UCSD, Univ. of Chicago, UCLA, Bellvitge Biomed. Res. Inst. (IDIBELL), L'Hospitalet de Llobregat, Stanford Univ. Sch. of Medecine, UCSD, Howard Hughes Med. Institute, The Salk Inst. for Biol. Studies.*

9:00 B30 **511.26** The role of CIP4 in neuroblastoma cell proliferation and differentiation. P. SUTHIVANICH; S. KONGOUN; J. KWANTONGDEE; K. TAYLOR; E. W. DENT; W. SAENGSAWANG*. *Fac. of Science, Mahidol Univ., Univ. of Wisconsin-Madison, Univ. of Wisconsin-Madison, Mahidol Univ.*

10:00 B31 **511.27** Dopaminergic transcriptional determinants repress non-dopaminergic transcription. N. KEE*; J. MONG; T. PERLMANN. *LICR, Karolinska Inst.*

11:00 B32 **511.28** Rna binding protein elavl4 regulates proliferation and differentiation of adult neural stem cells. W. GUO*; E. POLICH; A. GARDINER; N. PERRONE-BIZZOZERO; X. ZHAO. *Univ. of Wisconsin-Madison, Univ. of New Mexico Sch. of Med.*

8:00 B33 **511.29** Post-natal developmental alterations in the retina of dystrophic mdx mice. M. DE STEFANO*; I. PERSICONI; G. LUPO; V. LICURSI; N. A. GUADAGNO; R. NEGRI. *Sapienza Univ. of Roma, Ctr. for Res. in Neurobio. "Daniel Bovet".*

9:00 B34 **511.30** A soxc transcriptional network is required for visual pathway development. J. HERTZ*; X. JIN; B. A. DEROSA; J. Y. LI; P. VENUGOPALAN; D. A. VALENZUELA; R. D. PATEL; K. R. RUSSANO; S. A. ALSHAMEKH; D. VELMESHEV; Y. CHENG; T. M. BOYCE; A. DREYFUSS; M. S. UDDIN; K. J. MULLER; D. M. DYKXHOORN; J. L. GOLDBERG. *ISCI, Bascom Palmer Eye Inst., ISCI, Univ. of Miami Miller Sch. of Med., King Abdulaziz Univ. Hosp.*

POSTER

512. Synapse Formation: PNS

Theme A: Development

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

8:00 C1 **512.01** Crosslinking-induced endocytosis of acetylcholine receptors by quantum dots. C. LEE; H. L. ZHANG; L. GENG; H. B. PENG*. *The Hong Kong Univ. of Sci. and Technol., Natl. Univ. of Singapore.*

9:00 C2 **512.02** Reversed timing of receptor expression and axon extension during synaptogenesis offers new insight into mechanisms of synaptic transmission. M. C. MOTT*; K. EPLEY; J. PARK; G. B. DOWNES; C. HARRIS; K. BRIGGMAN; F. ONO. *NIH, Case Western Reserve Univ., Univ. of Massachusetts Amherst, NIH.*

10:00 C3 **512.03** RPM-1 functions through ANC-1 and beta-catenin to regulate synapse formation and axon termination. E. D. TULGREN; S. M. TURGEON; K. J. OPPERMAN; B. GRILL*. *The Univerity of Minnesota, Scripps Res. Inst.*

11:00 C4 **512.04** Wnt signaling in the formation of neuromuscular junction. L. WANG*; Y. ZOU. *UCSD.*

8:00 C5 **512.05** Glial cells influence synaptic plasticity of competing nerve terminals at the mammalian neuromuscular junction. H. DARABID*; R. ROBITAILLE. *Univ. De Montreal, Groupe de recherche sur le systeme nerveux central.*

9:00 C6 **512.06** Postsynaptic activity is crucial for synapse elimination. Y. CHONG; E. J. COOPER*. *McGill Univ.*

10:00 C7 **512.07** Characterization of *Drosophila* neto isoforms and their role at the neuromuscular junction. O. E. IGIESUOROBO*; C. RAMOS; D. SANDSTROM; M. SERPE. *Natl. Inst. of Health/ NICHD, Natl. Inst. of Health/ NIMH.*

11:00 C8 **512.08** Systematic characterization of synaptic morphogenesis and architecture in *Drosophila* homologs of neuropsychiatric susceptibility genes. B. KIRAGASI*; D. DICKMAN. *USC.*

8:00 C9 **512.09** Live imaging of activity-dependent synaptic refinement in *Drosophila* embryos. F. VONHOFF; H. S. KESHISHIAN*. *Yale Univ.*

9:00 C10 **512.10** Effect of 3-hydroxykynurenine in the ROS production induced by peroxynitrite on primary culture astrocytes. R. LUGO*; P. UGALDE-MUÑIZ; B. PINEDA; M. TORRES-RAMOS; J. PEDRAZA-CHAVERRÍ; C. RÍOS; V. PÉREZ-DE LA CRUZ. *Inst. Nacional De Neurología Y Neurocirugía, Manuel Velasco Suarez, Inst. Nacional De Neurología Y Neurocirugía, Manuel Velasco Suarez, Univ. Nacional Autónoma de México, Facultad de Química.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

513. Synapse Formation: CNS II

Theme A: Development

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

8:00 C11 **513.01** Dynamically changing expression patterns of ephrinA/EphA family members in developing hippocampus. A. T. HADER*; M. R. PLUMMER. *Rutgers Univ.*

9:00 C12 **513.02** EphA7 splice variants differentially regulate dendritic morphology and synaptogenesis during cerebral cortical development. C. LEONARD*; W. ATHAR; M. VAN DER GOES; D. BURTON; M. DONOGHUE. *Georgetown Univ., Trinity Col., MIT.*

10:00 C13 **513.03** Shank dependent changes in cortical synapse dynamics during neuronal maturation. S. A. SPANGLER*; L. A. NEEDLEMAN; X. LIU; B. A. MEYERS; A. MCALLISTER. *Univ. of California Davis.*

11:00 C14 **513.04** Semaphorin5a-plexina2 signaling inhibits synaptogenesis in hippocampal dentate granule neurons. Y. DUAN*; S. WANG; J. SONG; Y. MIRONOVA; H. SONG; A. L. KOLODKIN; R. J. GIGER. *Univ. of Michigan, The Johns Hopkins Univ. Sch. of Medicine, HHMI, The Johns Hopkins Univ. Sch. of Med., The Johns Hopkins Univ. Sch. of Med.*

8:00 C15 **513.05** Searching for synaptic connectivity molecules using the *C. elegans* male. M. I. LAZARO-PENA*; B. KIM; S. W. EMMONS. *Albert Einstein Col. of Med.*

9:00 C16 **513.06** ● A new automated synaptoneurosome preparation: Comparison between traditional and new techniques. J. L. BALSOR*; K. M. MURPHY. *McMaster Univ., McMaster Univ.*

10:00 C17 **513.07** Segregated innervation and nuclear territories in a polarized cell body during development of the calyx of Held. P. S. HOLCOMB*; M. HOYSON; D. R. JACKSON; K. MOTWANI; B. M. KELLERMEYER; M. H. ELLISMAN; T. J. DEERINCK; G. A. SPIROU. *West Virginia Univ. Sch. of Med., UCSD.*

11:00 C18 **513.08** ▲ The reduction of latency of action of antidepressants by 17β- estradiol is related to the stimulation of neuronal maturation. N. VEGA*; J. FERNÁNDEZ; G. RAMÍREZ; E. ESTRADA. *Natl. Inst. of Psychiatry, Ctr. for Res. and Advanced Studies (CINVESTAV), Ctr. for Res. and Advanced Studies (CINVESTAV), Natl. Inst. of Psychiatry.*

8:00 C19 **513.09** The role of dynamic microtubules in stabilization of estradiol-induced dendritic spines. M. MILLETTE*; K. TAYLOR; E. W. DENT. *Univ. of Wisconsin - Madison.*

9:00 C20 **513.10** Opposing roles of glutamate and neuroligin/neurexin adhesion in cortical synapse formation. S. L. BARROW; A. MCALLISTER*. *UC Davis, UC Davis.*

10:00 C21 **513.11** Molecular mechanisms of electrical synapse development. A. MILLER*; L. VOELKER; C. MOENS. *Fred Hutchinson Cancer Res. Ctr.*

11:00 C22-DP1 **513.12** Crystal structures of the C1q-like protein family reveal conserved Ca^{2+} binding motifs crucial for BAI3 GPCR interaction and synapse homeostasis. S. RESSL*; D. C. MARTINELLI; B. K. VU; T. C. SÜDHOF; A. T. BRUNGER. *Stanford Univ., HHMI.*

8:00 C23 **513.13** PirB is a receptor for LGI1 and alters seizure progression in mice. R. A. THOMAS*; C. X. Q. CHEN; V. SOUBANNIER; S. BAULAC; P. A. BARKER. *Montreal Neurolog. Inst. McGill Univ., CRICM UPMC, Hôpital de la Pitié-Salpêtrière.*

9:00 C24 **513.14** Sema4D signaling in mammalian CNS GABAergic synapse development. A. R. MOORE*; M. S. KUZIRIAN; A. J. RASSI; S. PARADIS. *Brandeis Univ.*

10:00 C25 **513.15** A point mutation abolishes presynaptic targeting of the synaptic vesicle protein mover. A. AKULA; F. WETZEL; A. PETKOVA; J. HOEBER; T. GHELANI; N. WITTENMAYER; T. DRESBACH*. *Univ. of Goettingen.*

11:00 C26 **513.16** The Wrb gene encodes a novel protein required for ribbon synapse function. L. L. DANIELE*; F. EMRAN; B. PERKINS. *Cole Eye Inst., McGill Univ., Cole Eye Institute, Cleveland Clin.*

8:00 C27 **513.17** Slow, stable, and long-distance retrograde movement of synaptophysin-positive puncta along axons in corticospinal slice coculture. N. YOSHIOKA*; N. ISOO; N. MURABE; H. KAMEDA; I. TAKAHASHI; M. SAKURAI. *Teikyo Univ. Sch. Med.*

9:00 C28 **513.18** CaMKII phosphorylation of neuroligin-1 regulates excitatory synapses. M. A. BEMBEN*; S. L. SHIPMAN; T. HIRAI; R. A. NICOLL; J. S. DIAMOND; K. W. ROCHE. *NIH, Univ. of California, San Francisco.*

10:00 C29 **513.19** Role of neurolastin, a novel brain-specific GTPase, in regulating excitatory synapses and spine morphology. R. M. LOMASH*; W. LU; R. J. YOULE; K. W. ROCHE. *Natl. Inst. of Hlth.*

POSTER

514. NMDA Receptor Trafficking and Physiology

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

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

8:00 C30 **514.01** A novel role for AIDA-1 in regulating NMDA receptor subunit composition and long-term potentiation. J. O. TINDI*; A. E. CHÁVEZ; S. CVEJIC; P. E. CASTILLO; B. A. JORDAN. *Albert Einstein Col. of Med. of Yeshiva Univ.*

9:00 C31 **514.02** A novel functional role of STEP in regulating phosphorylation of the synaptic GluN2B via PSD-95 association. S. WON*; K. W. ROCHE. *NIH/NINDS.*

10:00 C32 **514.03** Specificity Protein 4 functionally regulates the transcription of NMDA receptor subunits GluN1, GluN2A, and GluN2B. A. PRIYA*; K. JOHAR; M. T. T. WONG-RILEY. *Med. Col. of Wisconsin.*

11:00 C33 **514.04** Identifying interacting regions between the GluN subunits & the Src anchoring protein ND2 in the NMDAR complex. D. SCANLON*; H. L. LEDUC-PESSAH; M. W. SALTER. *The Hosp. For Sick Children.*

8:00 C34 **514.05** *In vitro* exposure to nicotine modulate the function of presynaptic NMDA receptors present on dopaminergic terminals in rat Nucleus Accumbens. M. MARCHI*; A. SALAMONE; S. ZAPPETTINI; M. GRILLI; G. OLIVERO; R. CUNHA; A. PITTALUGA. *Univ. of Genova, Univ. of Coimbra.*

9:00 D1 **514.06** N-Methyl-D-aspartate receptor is expressed by rat cultured cortical astrocytes and regulates their mitochondrial membrane potential. P. MONTES DE OCA BALDERAS; P. AGUILERA*; A. SANTAMARIA. *Inst. Nacional de Neurologia y Neurocirugia, Inst. Nacional de Neurologia y Neurocirugia.*

10:00 D2 **514.07** A novel partner for glun2a-containing nmda receptors, rnf10: a synapse-to-nucleus signal. F. GARDONI; M. C. DINAMARCA; F. GUZZETTI; D. LIM; J. STANIC; A. CALDARELLI; A. A. GENAZZANI; P. L. CANONICO; M. DILUCA*. *Univ. of Milano, Univ. degli Studi del Piemonte Orientale Amedeo Avogadro.*

11:00 D3 **514.08** Mechanisms of synaptic NMDA receptor potentiation by Wnt5a. A. MCQUATE; A. BARRIA*. *Univ. of Washington, Univ. of Washington.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 D4 **514.09** ● Effects of polyamines and monoamines on GluN1/GluN2A and GluN1/GluN2B subtypes of NMDA receptor. Y. YAMADA*; K. NORIKANE; K. MATSUMARU; H. IZU. *Dept of Biotech and Chem Fac of Engin. Kinki Univ., Natl. Res. Inst. of Brewing.*

9:00 D5 **514.10** NMDAR-mediated EPSCs in single pyramidal neurons are highly dependent on a concomitant rise in peri-synaptic pH. H. CHEN; M. CHESLER*. *NYU Sch. of Med., Dept. Neurosurg. NYU Sch. of Med.*

10:00 D6 **514.11** ● Subunit-selective glun2c and glun2d nmda receptor potentiators reverse mk801-induced impairment of pre-pulse inhibition. K. STRONG*; K. K. OGDEN; R. M. SANTANGELO FREEL; D. LIOTTA; L. G. CHASTAIN; B. KINKEAD; S. F. TRAYNELIS. *Emory Univ., Emory Univ., Emory Univ., Emory Univ.*

11:00 D7 **514.12** ● Mechanisms of oxysterol modulation of NMDA receptor function. A. J. LINSENBARDT*; H. SHU; J. J. DOHERTY; S. M. PAUL; C. F. ZORUMSKI; S. MENNERICK. *Washington Univ., Sage Therapeut., Weill Cornell Med. Col., Washington Univ., Taylor Family Inst. for Innovative Psychiatric Res.*

8:00 D8 **514.13** ● Network pharmacodynamics of the NMDAR channel blockers memantine and ketamine. C. M. WROGE*; L. N. EISENMAN; Y. IZUMI; J. J. DOHERTY; S. M. PAUL; C. F. ZORUMSKI; S. MENNERICK. *Washington Univ., Washington Univ., Washington Univ., Taylor Family Inst. for Innovative Psychiatric Res., Sage Therapeut., Appel Alzheimer's Dis. Res. Inst., Washington Univ.*

9:00 D9 **514.14** ● The major brain cholesterol metabolite 24(S)-hydroxycholesterol is a potent allosteric modulator of N-methyl-D-aspartate receptors. S. M. PAUL*; J. J. DOHERTY; A. J. ROBICHAUD; G. BELFORT; B. Y. CHOW; D. C. CRAWFORD; A. J. LINSENBARDT; Y. IZUMI; S. MENNERICK; C. F. ZORUMSKI. *Appel Alzheimer's Dis. Res. Inst., Sage Therapeut., Washington Univ. Sch. of Med.*

10:00 D10 **514.15** ● A novel class of positive allosteric NMDA receptor modulators. R. E. PERSZYK*; B. M. KATZMAN; D. C. LIOTTA; S. F. TRAYNELIS. *Emory Univ., Emory Univ.*

11:00 D11 **514.16** The pre-M1 region of GluN2 subunits is a critical gating element of NMDA receptors. K. K. OGDEN*; J. ZHANG; S. F. TRAYNELIS. *Emory Univ.*

8:00 D12 **514.17** ● A novel class of negative allosteric modulators of NMDA receptor function. B. M. KATZMAN*; R. E. PERSZYK; D. C. LIOTTA; S. F. TRAYNELIS. *Emory Univ., Emory Univ.*

9:00 D13 **514.18** Modulation of glycinergic NMDA receptors by protons and zinc. K. A. CUMMINGS*; G. K. POPESCU. *Univ. At Buffalo.*

10:00 D14 **514.19** Development of NMDA receptor-dependent glutamate excitotoxicity in human embryonic stem cell-derived neurons: An *in vitro* model system. K. GUPTA*; G. E. HARDINGHAM; S. CHANDRAN. *Univ. of Cambridge, Univ. of Edinburgh, Univ. of Edinburgh.*

11:00 D15 **514.20** Kinetics and pharmacology of triheteromeric nmda receptors at hippocampal synapses. K. R. TOVAR*; G. L. WESTBROOK. *Vollum Inst., Vollum Inst.*

8:00 D16 **514.21** MHC class I is a voltage-dependent regulator of NMDA receptor-mediated single-channel currents. C. M. TYLER*; M. CHACON; J. I. AGUILAR; D. H. PERLMAN; L. FOURGEAUD; L. M. BOULANGER. *Princeton Univ., Univ. of California at San Diego.*

9:00 D17 **514.22** Charged residues external to the NMDA receptor gate control gating and conductance. B. A. MAKI*; G. K. POPESCU. *Univ. At Buffalo, SUNY, SUNY Buffalo.*

10:00 D18 **514.23** Synaptic-like glutamate applications reveal NMDA receptor subtype-dependent inhibition by memantine and ketamine. N. G. GLASGOW*; J. W. JOHNSON. *Univ. of Pittsburgh.*

11:00 D19 **514.24** Sites of alcohol action at the GluN1/GluN2B NMDA receptor M3-M4 domain intersubunit interfaces. Y. ZHAO; M. WU; H. REN; R. W. PEOPLES*. *Marquette Univ.*

8:00 D20 **514.25** Extrasynaptic NMDA receptors on fast-spiking prefrontal cortical interneurons. E. M. LEWIS*; P. O'DONNELL. *Univ. of MD Baltimore, Univ. of MD, Baltimore.*

9:00 D21 **514.26** Probing nmda receptor activation dynamics by combined patch-clamp single-molecule imaging microscopy. H. LU*; D. K. SASMAL. *Bowling Green State Univ.*

10:00 D22 **514.27** Tranexamic acid inhibits N-methyl-D-aspartate receptors in the hippocampus. I. LECKER*; D. WANG; D. MAZER; B. A. ORSER. *Univ. of Toronto, Univ. of Toronto, St. Michael's Hospital, Keenan Res. Ctr. in the Li Ka Shing Knowledge Inst., Univ. of Toronto, Sunnybrook Hlth. Sci. Ctr.*

11:00 D23 **514.28** Time-of-day dependent changes in NMDAR subunits and effects on synaptic plasticity at intrathalamic connections. S. ASTORI*; A. LUTHI. *DNF, Univ. of Lausanne.*

8:00 D24 **514.29** Comparison of the *Ex vivi* receptor occupancy profile of ketamine to several NMDA receptor antagonists in mouse hippocampus. B. LORD*; C. WINTMOLDERS; X. LANGLOIS; L. NGUYEN; P. BONAVENTURE. *Janssen PRD, L.L.C, Janssen PRD, L.L.C, Janssen PRD, L.L.C., Janssen PRD, L.L.C.*

9:00 D25-DP2 **514.30** Amyloid-beta and agonist induce ion-flow independent conformational changes in the cytoplasmic domain of nmda receptors as monitored by fret-flim. K. B. DORE*; J. AOW; R. MALINOW. *UCSD.*

POSTER

515. TRP Channel Physiology and Pharmacology

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

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

8:00 D26 **515.01** NADA activates CB1 and TRPV1 independently to discretely regulate separate glutamate vesicle pools in the solitary tract nucleus. J. A. FAWLEY*; M. E. HOFMANN; M. C. ANDRESEN. *Oregon Hlth. & Sci. Univ.*

9:00 D27 **515.02** TRPV1 antagonists block capsaicin but not temperature activation of TRPV1 at 2nd order neurons in the nucleus of the solitary tract. M. HOFMANN*; J. A. FAWLEY; M. C. ANDRESEN. *OHSU.*

10:00 D28 **515.03** Propofol restores TRPV1 sensitivity via a TRPA1-, NOS-dependent activation of PKCε in sensory neurons. P. SINHA ROY; B. PRUDNER; S. SINHA; D. S. DAMRON*. *Kent State Univ., Kent State Univ.*

11:00 D29 **515.04** The pharmacological action of eugenol involves rapid desensitization of TRPA1. G. CHUNG*; Y. KIM; S. IM; I. JANG; S. OH. *Seoul Natl. Univ.*

8:00 D30 **515.05** Identification of functional microdomains within the S4-S5 linker of human TRPA1 channel. A. HYNKOVA; K. WITSCHAS; V. ZIMA; L. SURA; I. BARVIK; V. VLACHOVA*. *Inst. of Physiol. AS CR, Inst. of Physics, Charles Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 D31 **515.06** Multiple ligand binding sites within intracellular N-terminus of TRPM1. M. JIRKU*; K. BOUSOVA; L. BUMBA; J. TEISINGER. *Inst. of Physiol. ASCR, V.v.I., Inst. of Microbiology ASCR, v.v.i.*

10:00 D32 **515.07** Involvement of TRPM2 channels in microglia activation. H. JEONG*; Y. KIM; S. JUNG; S. OH. *Seoul Natl. Univ., Hanyang Univ.*

11:00 D33 **515.08** Kinetics of rapid covalent modification by electrophilic activators of TRPA1. P. K. BAHIA*; T. E. TAYLOR-CLARK. *Univ. of South Florida.*

8:00 D34 **515.09** ▲ TRPV1 and TRPV2 are differentially involved in oral persistent pain associated with mucosal injury. K. URATA*; M. SHINODA; J. LEE; N. GIONHAKU; K. IWATA. *Nihon Univesity Sch. of Dent., Nihon Univesity Sch. of Dent.*

9:00 D35 **515.10** PKD2L1 channels modulate medullar CSF-contacting neurons excitability by detecting changes in extracellular medium composition. A. ORTS-DEL'IMMAGINE; J. TROUSLARD; V. TILLEMENT; C. TARDIVEL; N. WANAVERBECQ*. *Aix-Marseille Univ.*

10:00 D36 **515.11** Irritants activate transient receptor potential channels and non-TRP channel receptors in trigeminal chemosensory neurons of mice. R. LEHMANN*; N. SCHOEBEL; H. HATT; C. VAN THRIEL. *Leibniz Res. Ctr. For Working Envrn. and Human Factors, Ruhr Univ. Bochum.*

11:00 D37 **515.12** TRPV4 is an important transducer that converts brain temperature energy into neuronal electrical excitability. K. SHIBASAKI*; M. TOMINAGA; Y. ISHIZAKI. *Gunma Univ. Grad. Sch. of Med., Natl. Inst. for Physiol.*

8:00 D38 **515.13** Immunoelectron localization of the transient receptor potential vanilloid type 1 at inhibitory synapses in the mouse dentate gyrus. P. GRANDES*; M. CANDUELA; J. MENDIZABAL-ZUBIAGA; L. REGUERO; N. PUENTE. *Basque Country Univ.*

9:00 D39 **515.14** TRPV1 expression in central histaminergic neurons of rat and mouse. R. DE LUCA*; A. KERNDER; Y. YANOVSKY; O. A. SERGEEVA. *Heinrich-Heine Univ. Duesseldorf, Med. Faculty, Neurophysiol.*

10:00 D40 **515.15** The interactions of the intracellular regions of the TRPM4 channel with calcium binding proteins. K. BOUSOVA*; M. JIRKU; L. BUMBA; J. TEISINGER. *Inst. of Physiology, Acad. of Sci. of the Czech Republic, Inst. of Microbiology, Acad. of Sci. of the Czech Republic.*

11:00 D41 **515.16** Pharmacological characterization and modulation of a cation channel in *Aplysia* bag cell neurons. R. M. STURGEON*; N. S. MAGOSKI. *Queen's Univ.*

POSTER

516. Muscarinic Acetylcholine Receptors and GABAB Receptors

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

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

8:00 D42 **516.01** An investigation into the binding site of M1 muscarinic acetylcholine receptor ligands. A. J. MOGG*; M. CRABTREE; L. M. BROAD. *Eli Lilly & Co. Ltd.*

9:00 E1 **516.02** Back-translation of clinical data into preclinical models: De-risking strategy for M1-PAM. K. DE WAEPENAERT*; F. ROMBOUTS; L. LENAERTS; I. FONTEYN; T. SMETS; M. MAHIEU; H. HENDRICKX; D. SMETS; R. MOSTMANS; A. VANLOMMEL; S. JANSSENS; F. COOLS; A. MEGENS; E. CLESSENS; H. BORGHYS; M. SOMERS; G. VANHOOF; J. AERSSENS. *Janssen Res. and Development, A Div. of Janssen Pharmaceutica NV, Janssen Res. and Development, A Div. of Janssen Pharmaceutica NV, Janssen Res. and Development, A Div. of Janssen Pharmaceutica NV, Janssen Res. and Development, A Div. of Janssen Pharmaceutica NV, Janssen Res. and Development, A Div. of Janssen Pharmaceutica NV.*

10:00 E2 **516.03** ● Discovery, synthesis, and pharmacological characterization of novel, highly selective m5 allosteric modulators. P. R. GENTRY*; M. KOKUBO; D. J. FOSTER; T. M. BRIDGES; C. M. NISWENDER; J. S. DANIELS; P. J. CONN; M. R. WOOD; C. W. LINDSLEY. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Ono Pharmaceut., Vanderbilt Univ.*

11:00 E3 **516.04** ● Characterization of Novel M4 PAM in Huntington's disease mouse model. T. PANCANI*; A. B. BOWMAN; T. J. BICHELL; T. M. BRIDGES; D. J. SCOTT; C. W. LINDSLEY; C. JONES; P. J. CONN; Z. XIANG. *Vanderbilt Univ. Medcenter.*

8:00 E4 **516.05** M5-muscarinic receptors engender different physiological outcomes in SNc neurons depending on their subcellular location. D. J. FOSTER*; P. R. GENTRY; Z. XIANG; C. W. LINDSLEY; P. J. CONN. *Vanderbilt Ctr. For Neurosci. Drug Discovery.*

9:00 E5 **516.06** ● Selective activation of cholinergic interneurons induces long-lasting enhancement of intrinsic excitability of striatal medium spiny neurons. X. LV; C. LINDSLEY; P. J. CONN; Z. XIANG*. *Vanderbilt Univ.*

10:00 E6 **516.07** Effects of an anti-muscarinic component isolated from Micrurus lemniscatus venom on intracellular signaling by inositol phosphate and learning and memory of rats. M. L. SANDOVAL*, SR; T. S. SATAKE; M. O. CASOTTI; E. O. FRARE; T. J. OLIVEIRA; R. M. PORTO; I. F. C. BATISTA; F. M. ABDALLA; G. F. XAVIER. *Butantan Inst., Inst. of Biosciences/University of São Paulo.*

11:00 E7 **516.08** Early stress prevents the potentiation of muscarinic excitation by calcium release in adult prefrontal cortex. E. PROULX*; D. SURI; S. P. HEXIMER; V. A. VAIDYA; E. K. LAMBE. *Univ. Toronto, Tata Inst. for Fundamental Res., Heart and Stroke/Richard Lewar Ctr. of Excellence in Cardiovasc. Res., Univ. of Toronto.*

8:00 E8 **516.09** Phosphorylation of GABAB receptors controls the activity of its auxiliary subunits. L. ADELFINGER; R. TURECEK; K. IVANKOVA; M. GASSMANN*; B. BETTLER. *Univ. of Basel.*

9:00 E9 **516.10** ● KCTD modulation of GABA(B) receptor function. M. Y. S. LI; C. J. MILLIGAN; H. WANG; C. A. REID*; S. C. HOPKINS; S. PETROU. *Florey Neurosci. Inst., Sunovion Pharmaceuticals Inc.*

10:00 E10 **516.11** ● Enhanced postsynaptic $GABA_B$ receptor activity regulates excitatory neuronal architecture. M. TERUNUMA*; R. REVILLA-SANCHEZ; M. N. PANGALOS; S. J. MOSS. *Tufts Univ., AstraZeneca, Univ. Col. London.*

11:00 E11 **516.12** The effects of baclofen and phaclofen on performance in the Morris water maze. C. F. HEANEY*; M. M. BOLTON; A. S. MURTISHAW; J. W. KINNEY. *Univ. of Nevada, Las Vegas.*

Tue. AM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 E12 **516.13** Natural substance neuroprotect against ethanol-induced neuronal apoptosis via $GABA_B$ receptors intracellular signaling in prenatal rat hippocampal neurons. M. KIM*; S. ALI SHAH; I. ULLAH; T. KIM; G. YOON; H. LEE. *Dept. of Biol.*

9:00 E13 **516.14** GABA(B) receptors in the nucleus accumbens modulate dopamine release in a frequency dependent manner. K. A. PITMAN*; S. L. BORGLAND. *UBC, Univ. of Calgary.*

10:00 E14 **516.15** Patch-clamp analysis of anti-spasticity effect by baclofen in spinal ventral horn neurons. T. ABE; T. NAKATSUKA*; W. TANIGUCHI; N. MINE; N. TAKIGUCHI; N. MIYAZAKI; M. YAMANAKA; M. YOSHIDA. *Wakayama Med. Univ., Kansai Univ. of Hlth. Sci.*

11:00 E15 **516.16** ● ADX71441 treatment in a rat model for Charcot-Marie-Tooth disease type 1A downregulates the Pmp22 gene overexpression and reduces number of hypomyelinated axons. M. W. SEREDA*; M. RUDOLPH; R. FLEDRICH; R. STASSART; S. M. POLI; H. HADDOUK; T. PRUKOP. *Max-Planck Inst. Exp. Med., Max-Planck Inst. Exp. Med., Addex Therapeut., Addex Therapeut.*

POSTER

517. Synaptic Transmission: Synaptic Integration I

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

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

8:00 E16 **517.01** Dynamic tuning of single neuron encoding through modulation of firing class and type of short-term plasticity. A. MOHAN; C. STRICKER*. *The Australian Natl. Univ., ANUMS / JCSMR, ANU.*

9:00 E17 **517.02** Activation of extrasynaptic NMDARs at individual PF - MLI synapses in cerebellum. B. NAHIR*; C. E. JAHR. *OHSU.*

10:00 E18 **517.03** Selective synaptic inhibition accompanying dendritic spine activity. N. TAKAHASHI*; N. MATSUKI; Y. IKEGAYA. *Charité Universitätsmedizin Berlin, Univ. of Tokyo.*

11:00 E19 **517.04** *In vivo* monosynaptic transmission between layer 2 GABA-ergic interneurons in mouse forepaw primary somatosensory cortex. A. L. DORRN*; J. F. A. POULET. *Max-Delbrueck-Center For Mol. Med., NeuroCure - Neurosci. Res. Center, Charité-Universitaetsmedizin.*

8:00 E20 **517.05** Temporally and spatially distributed NMDA receptor-dependent synaptic input onto spinal ventral horn neuron dendrites during behavior. M. H. ALPERT*; S. ALFORD. *Univ. of Illinois, Chicago.*

9:00 E21 **517.06** Evidence of a functional gabaergic inhibition between reticular thalamic neurons revealed by an optogenetic approach in the mouse. J. PAZ*; J. R. HUGUENARD. *Stanford Univ.*

10:00 E22 **517.07** Oxytocin activation of fast-spiking interneurons enhances hippocampal spike transmission. S. F. OWEN*; S. N. TUNCDEMIR; G. FISHELL; R. W. TSIEN. *Gladstone Inst. of Neurolog. Dis., New York Univ.*

11:00 E23 **517.08** *In vivo* measurement of synaptic transmission between identified neurons in layer 2/3 mouse barrel cortex. A. PALA*; C. C. H. PETERSEN. *Ecole Polytechnique Federale de Lausanne (EPFL).*

8:00 E24 **517.09** Entorhinal-cortical HCN channel containing terminals originate from the forebrain. M. M. SHAH*; Z. HUANG. *Univ. Col. London.*

9:00 E25 **517.10** Temporal components of a synaptic terminal-terminal transmission in dorsal striatum slices. L. WANG*; S. SHANG; L. ZHENG; S. TENG; F. ZHU; B. LIU; Q. WU; M. LI; W. LIU; H. XU; L. ZHOU; H. DOU; X. KANG; P. ZUO; C. WANG; S. WANG; Z. ZHOU. *Inst. of Mol. Medicine, Peking Univ.*

10:00 E26 **517.11** NMDA receptor-dependent dendritic calcium spikes underlie hippocampal complex bursts *in vivo.* C. GRIENBERGER*; X. CHEN; A. KONNERTH. *Inst. for Neurosci.*

11:00 E27 **517.12** *In vivo* monosynaptic excitatory transmission between layer 2 pyramidal neurons in mouse somatosensory cortex. J. JOUHANNEAU*; A. L. DORRN; J. F. A. POULET. *Max-Delbrück Ctr. for Mol. Med. (MDC), Charité-Universitätsmedizin.*

8:00 E28 **517.13** Inhibitory synaptic transmission between Purkinje neurons and neurons of the cerebellar nuclei in mice with the Angelman syndrome-linked mutation GABRB3 m-/p+. A. A. TURNOWCHYK; I. M. RAMAN*. *Northwestern Univ., Northwestern Univ.*

9:00 E29 **517.14** Abnormal cytoplasmic calcium dynamics in central neurons of a dystonia mouse model. S. IWABUCHI*; J. KOH; N. C. HARATA. *Univ. of Iowa.*

10:00 E30 **517.15** Electrical and chemical synapses drive fine-scale correlations in the retina. A. J. MCLAUGHLIN*; S. TRENHOLM; D. J. SCHWAB; G. B. AWATRAMANI. *Univ. of Victoria, Princeton Univ.*

11:00 E31 **517.16** ● Development of network connectivity in human pluripotent stem cell derived neural networks. M. E. MÄKINEN*; L. YLÄ-OUTINEN; D. FAYUK; S. NARKILAHTI. *Univ. of Tampere / Biomeditech.*

8:00 E32 **517.17** Powerful control of principal cell output by parvalbumin and cholecystokinin/CB1 cannabinoid receptor expressing interneurons in mouse basolateral amygdala. J. VERES*; G. A. NAGY; V. K. VERECZKI; N. HÁJOS. *Inst. of Exptl. Medicine, Hungarian Acad. of Sci.*

9:00 E33 **517.18** Optogenetic investigation of axo-axonic inhibitory synapses within a cortical circuit. X. WANG*; Q. SUN. *Univ. of Wyoming.*

10:00 E34 **517.19** The hysteresis of evoked spike patterns in a cultured neuronal network depends on the strength of functional connections. H. ITO*; S. KUDOH. *Sch. of Sci. and Tech.,Kwansei Gakuin Univ.*

11:00 E35 **517.20** Reuptake transporters limit dopamine but not noradrenaline pooling during autoreceptor feedback inhibition. N. A. COURTNEY; C. FORD*. *Case Western Reserve Univ.*

POSTER

518. Long-Term Depression (LTD)

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

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

8:00 E36 **518.01** ● Augmented latent inhibition and lower seizure threshold in protein interacting with C kinase (PICK1) knock-out mice. H. M. ARNOLD*; P. YANG; S. GLASS; R. L. HUGANIR; K. RHODES; A. DUNNAH. *Biogen Idec, Johns Hopkins Univ. Sch. of Med. and Howard Hughes Med. Inst.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 E37 **518.02** ● Pharmacological disruption of PICK1-GluR2 interaction constitutes a novel target for neurological diseases associated with synaptic dysfunction. C. C. BANOS*; T. R. CHAN; F. JOW; E. Y. S. LIN; M. S. BRENNAN; R. L. HUGANIR; K. J. RHODES; R. H. SCANNEVIN; M. WITTMAN; K. M. GUCKIAN; A. W. DUNAH. *Biogen Idec, Johns Hopkins Univ. Sch. of Med. and Howard Hughes Med. Inst.*

10:00 E38 **518.03** Soluble amyloid β-enhanced LTD in rat dentate gyrus of hippocampus is mGluR1/5-dependent and involves activation of p38MAPK, STEP and caspase-3. L. CHANG*; X. CHEN; R. LIN; J. HU; Q. WANG. *Ningbo University, Med. Sch.*

11:00 E39 **518.04** Asymmetric dendritic spine dynamics in the apparently symmetric long-lasting synaptic plasticity phenomena after repeated LTP/LTD inductions. S. HASEGAWA; Y. OE; K. TOMINAGA-YOSHINO; A. OGURA*. *Osaka Univ.*

8:00 E40 **518.05** Effects of a clinically-used opioid analgesic on dissociable forms of long-term depression in the dorsal striatum. B. K. ATWOOD*; D. KUPFERSCHMIDT; W. XIONG; D. LOVINGER. *NIAAA, NIAAA.*

9:00 E41 **518.06** Role of DGKζ in the regulation of PKCα activity and cerebellar Purkinje cell synapses. D. LEE*; K. KIM; Y. KIM; Y. YAMAMOTO; E. KIM; K. TANAKA-YAMAMOTO. *KIST, KAIST.*

10:00 E42 **518.07** Neurotensin induces long-term depression of dopamine D2 receptor-mediated inhibitory postsynaptic currents in substantia nigra dopamine neurons. E. PICCART*; M. J. BECKSTEAD. *UTHSCSA, UTHSCSA.*

11:00 E43 **518.08** The role of X-linked mental retardation protein, BRAG1, in synaptic function. J. C. BROWN*; L. ZHONG; A. PETERSEN; R. WALIKONIS; N. Z. GERGES. *Med. Col, Wisconsin, Univ. of Connecticutt.*

8:00 E44 **518.09** Regional variations in phosphodiesterase and adenylyl cyclase activity contribute to the differential expression of adenosine A1 receptor-mediated synaptic plasticity in hippocampal areas CA^1 and Ca^2. D. A. CARUANA*; S. M. DUDEK. *NIEHS/NIH.*

9:00 E45 **518.10** Chronic stress impairs α_1-adrenergic receptor-induced endocannabinoid ltd in the dorsal raphe nucleus. S. HAJ-DAHMANE*; J. WANG; R. SHEN. *SUNY @ Buffalo.*

10:00 E46 **518.11** Effects of anomalous diffusion on synaptic plasticity. T. MARINOV*; F. SANTAMARIA. *Univ. of Texas at San Antonio, Univ. of Texas.*

11:00 E47 **518.12** Activation of synaptic group II mGluRs induces long-term depression at GABAergic synapses in CNS neurons. Y. LIU*; Z. TANG; W. SHI; E. DINH; W. HAMLET; R. CURRY; Y. LU. *Northeast Ohio Med. Univ.*

8:00 E48 **518.13** Intracellular mechanisms responsible for serotonin-mediated reversal of metabotropic glutamate receptor-mediated long-term depression (mGluR-LTD) in wild-type and Fmr1 KO mouse hippocampus. L. T. COSTA; C. M. BONACCORSO; S. A. MUSUMECI; M. V. CATANIA; L. CIRANNA*. *Univ. of Messina, IRCCS Oasi Maria Santissima, Natl. Res. Council (CNR), Univ. Di Catania.*

9:00 E49 **518.14** Investigations of the role of eIF4E/eIF4G interactions and S6K1 in protein synthesis-dependent hippocampal synaptic plasticity. E. SANTINI*; T. HUYNH; S. KOO; E. KLANN. *New York Univ., New York Univ., New York Univ.*

10:00 E50 **518.15** Epigenetic regulation of synaptic plasticity and epilepsy in tuberous sclerosis complex. T. BASU*; K. O'RIORDAN; A. KIRCHNER; B. SCHOENIKE; A. ROOPRA. *Univ. of Wisconsin-Madison.*

11:00 E51 **518.16** AMPA receptor pHluorin-GluA2 reports NMDA receptor-induced intracellular acidification in hippocampal neurons. M. A. RATHJE*; H. FANG; J. L. BACHMAN; U. GETHER; R. L. HUGANIR; K. L. MADSEN. *Dept. of Neurosci. and Pharmacol., Johns Hopkins.*

8:00 E52 **518.17** Striatopallidal long-term synaptic plasticity. R. HERNÁNDEZ*, SR; M. A. ARIAS-GARCÍA; J. E. PEREZ-ORTEGA; E. GALARRAGA; J. BARGAS. *UNAM.*

9:00 E53 **518.18** N-methyl-d-aspartate receptor (nmdar)-activated kinases in presynaptic long-term depression (ltd). K. R. GOPAUL*; X. ZHANG; P. STANTON. *New York Med. Col., New York Med. Col., New York Med. Col.*

10:00 E54 **518.19** Aging-associated immune dysregulation drives a shift in the direction of hippocampal synaptic plasticity and the ratio of proBDNF vs. mBDNF. G. P. CORTESE*; R. M. BARRIENTOS; S. F. MAIER; S. L. PATTERSON. *Univ. of Colorado, Boulder.*

11:00 F1 **518.20** Impairment of both NMDAR-dependent and mGluR-dependent long-term depression (LTD) in the hippocampus of a sortilin related receptor (SORCS3) deficient mouse model. G. B. CHRISTIANSEN*; T. BREIDERHOFF; A. NYKJAER; K. JENSEN; T. WILLNOW; M. M. HOLM. *Aarhus Univ., Max-Delbrueck-Centrum (MDC), Aarhus Univ.*

8:00 F2 **518.21** Neuronal expression of H2-Db is sufficient for synaptic pruning and regulation of AMPA receptors. H. LEE*; B. K. BROTT; C. J. SHATZ. *Stanford Univ.*

9:00 F3 **518.22** Hippocalcin signaling in hippocampal LTD. P. V. BELAN*; A. DOVGAN; N. KONONENKO; V. CHERKAS; T. TSUGORKA; L. HAYNES; R. D. BURGOYNE. *Bogomoletz Inst. Physiol, Key State Lab. of Mol. and Cell. Biol., Univercity of Liverpool.*

10:00 F4 **518.23** Roles for presynaptic N- and P/Q-type calcium channels in plasticity of cortical afferents in the dorsolateral striatum. D. A. KUPFERSCHMIDT*; D. M. LOVINGER. *NIAAA / NIH.*

11:00 F5 **518.24** Nitric oxide in striatal synaptic plasticity. I. RAFALOVICH*; J. PLOTKIN; A. MELENDEZ; D. J. SURMEIER. *Northwestern Univ.*

8:00 F6 **518.25** Convergence of synaptic pathophysiology in the hippocampus of the Syngap+/- and Fmr1-/y mice. S. BARNES*; A. D. JACKSON; E. M. OSTERWEIL; N. KOMIYAMA; S. G. N. GRANT; M. F. BEAR; P. C. KIND; D. J. A. WYLLIE. *Univ. of Edinburgh, MIT.*

9:00 F7 **518.26** LTD-inducing stimuli promote cleavage of the synaptic adhesion molecule NGL-3 through NMDA receptors, matrix metalloproteinases, and presenilin/y-secretase. H. LEE*, V; E. LEE; Y. SONG; E. KIM. *Inst. of Basic Sci. (IBS), Korea Advanced Inst. of Sci. and Technology(KAIST), Inst. of Basic Sci. (IBS),Korea Advanced institute of Sci. and Technology(KAIST).*

10:00 F8 **518.27** Phldb2 regulates the maturation of dendritic spines and AMPA receptor endocytosis during long-term depression. M. XIE*; H. YAGI; T. IGUCHI; Y. OKA; K. KURODA; M. YUZAKI; S. MATSUDA; T. SHIRAO; Y. ISHIKAWA; M. SATO. *Univ. of Fukui, Fac. of Med. Sci., Univ. of Fukui, Univ. of Fukui, Keio Univ., Gunma Univ. Grad. Sch. of Med., Grad. Sch. of Biol. Sciences, Nara Inst. of Sci. and Technol., Osaka Univ. Grad. Sch. of Med.*

11:00 F9 **518.28** Presynaptic NMDA receptor-dependent self-depression at developing neocortical synapses. A. RODRIGUEZ-MORENO*; A. GONZÁLEZ-RUEDA; A. BANERJEE; A. L. UPTON; M. T. CRAIG; O. PAULSEN. *Univ. Pablo de Olavide (Edificio 21), Univ. of Oxford, Univ. of Cambridge.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

519. Spike-Timing Dependent Plasticity

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

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

8:00 F10 **519.01** Heterosynaptic plasticity of excitatory inputs to inhibitory neurons in rat visual cortex *in vitro.* V. ILIN*; M. ROSCHIN; M. CHISTYAKOVA; M. VOLGUSHEV. *Univ. of Connecticut, Inst. of Higher Nervous Activity and Neurophysiol.*

9:00 F11 **519.02** ● External glucose concentration has influences on the spontaneous electrical activity in dissociated neuronal network. W. MINOSHIMA*; H. ITO; S. KUDOH. *Japan/Graduate Sch. of Sci. and Tech., Kwansei Gakuin Univ, S. N. Kudoh's Lab., Kwansei Gakuin University, Sch. of Sci. and Tech., Kwansei Gakuin Univ, S. N. Kudoh's Lab,, Kwansei Gakuin University, Sch. of Sci. and Tech., Kwansei Gakuin Univ, S. N. Kudoh's Lab,.*

10:00 F12 **519.03** Heterosynaptic plasticity and synaptic competition. J. CHEN*; C. LEE; M. CHISTIAKOVA; M. VOLGUSHEV; M. BAZHENOV. *Univ. of California, Riverside, Univ. of Connecticut.*

11:00 F13 **519.04** Ripples enable replay-induced synaptic plasticity in the hippocampus. J. SADOWSKI*; J. R. MELLOR; M. W. JONES. *Univ. of Bristol.*

8:00 F14 **519.05** Neuromodulators-mediated consolidation of STDP eligibility traces. K. HE*; A. KIRKWOOD. *The Johns Hopkins Univ.*

9:00 F15 **519.06** Spatiotemporal input dependent plasticity in cortical pyramidal cell dendrites. M. MACAK; T. BRANCO; M. HAUSSER*. *UCL, MRC Lab. for Mol. Biol.*

10:00 F16 **519.07** Reoccurring spatiotemporal optogentic stimulation pattern induces plasticity in a cortical neuron. V. LERNER*; S. ZIBMAN; H. SOMPOLINSKY; M. LONDON; Y. YAROM. *Hebrew Univ. of Jerusalem, Hebrew Univ. of Jerusalem.*

11:00 F17 **519.08** Natural firing patterns reduce sensitivity of synaptic plasticity to spike-timing. S. OSTOJIC*; M. GRAUPNER. *Ecole Normale Superieure, New York Univ.*

8:00 F18 **519.09** Role of experience in plasticity outcomes of spatially separate synaptic pathways onto individual neurons in mouse visual cortex. O. M. FITCH*; M. J. FRIEDLANDER. *Virginia Tech. Carilion Res. Inst., Baylor Col. of Med.*

9:00 F19 **519.10** Twenty four hour sweetened high fat food treatment increases excitatory synapses onto vta dopamine neuron in mice. S. LIU*; S. BORGLAND. *Univ. of Calgary.*

10:00 F20 **519.11** Cultured cortical neurons can detect a higher-probability hidden signal source with multi-electrode stimulation. T. ISOMURA*; K. KOTANI; Y. JIMBO. *The Univ. of Tokyo.*

11:00 F21 **519.12** Learning probabilistic inference in general graphical models with networks of spiking neurons. D. PECEVSKI*; W. MAASS. *Graz Univ. of Technol.*

8:00 F22 **519.13** Neurogranin modulates the threshold for inducing LTP in spike-timing-dependent plasticity. H. HWANG*; K. J. JONES; W. XU. *MIT.*

9:00 F23 **519.14** The roles of individual Ca^{2+} sources in plasticity under different synaptic conditioning patterns in visual cortex. D. KALIKULOV*; M. J. FRIEDLANDER. *Virginia Tech. Carilion Res. Inst.*

10:00 F24 **519.15** Characterizing topology-dependent network plasticity induced by electrical stimulation in silico. R. NI*; D. B. SINHA; N. M. LEDBETTER; D. L. BARBOUR. *Washington Univ. in St. Louis.*

11:00 F25 **519.16** A modular attractor memory network with spike-based, probabilistic learning. P. J. TULLY; M. H. HENNIG; A. B. LANSNER*. *Royal Inst. of Technol. (KTH), Karolinska Institutet, Univ. of Edinburgh, Numerical Analysis & Computer Sci.*

8:00 F26 **519.17** Plasticity of excitatory-inhibitory balance in the auditory cortex. J. A. D'AMOUR*; R. C. FROEMKE. *New York University, Sch. of Med.*

POSTER

520. Network Interactions: Signal Propagation

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

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

8:00 F27 **520.01** Feedforward and feedback inhibition differentially control the spike output patterns of CA1 pyramidal neuron. H. JANG; J. KWAG*. *Korea Univ.*

9:00 F28 **520.02** ● Multichannel recordings in the medial prefrontal cortex during carbachol and group I metabotropic glutamate receptor activation. M. POLLARD*; H. SHABAN. *Janssen Pharmaceutica NV.*

10:00 F29 **520.03** Neural circuit that computes direction selectivity in mouse retina. J. S. KIM; M. GREENE; A. ZLATESKI; M. RICHARDSON; M. BALKAM; M. PURCARO; H. SEUNG*; M. HELMSTAEDTER; K. BRIGGMAN; W. DENK. *MIT, Max Planck Inst. of Neurobio.*

11:00 F30 **520.04** Local differences in axonal action potential conduction velocity. D. J. BAKKUM*; U. FREY; M. RADIVOJEVIC; J. MUELLER; M. FISCELLA; H. TAKAHASHI; A. HIERLEMANN. *ETH Zurich, RIKEN Quantitative Biol. Ctr., The Univ. of Tokyo.*

8:00 F31 **520.05** Propagation of errors in metabolically constrained networks of excitatory and inhibitory neurons. J. CHAPETON*; R. GALA; A. STEPANYANTS. *Northeastern Univ.*

9:00 F32 **520.06** Two distinct origin of the active phases of the slow cortical rhythm in the somatosensory cortex of the ketamine-xylasine anesthetized rat. R. FIÁTH*; P. BEREGSZÁSZI; I. ULBERT. *Res. Ctr. For Natural Sciences, Hungarian Acad. of Sci., Pázmány Péter Catholic Univ.*

10:00 F33 **520.07** ▲ The effects of propagation delays on spiking activity. K. Y. TERRAZAS*; W. TEKA; F. SANTAMARIA. *Univ. of Texas At San Antonio, Univ. of Texas at San Antonio, Univ. of Texas at San Antonio.*

11:00 F34 **520.08** Ultra-fast neuronal ensemble reaction times in cortical neurons under recreated synaptic background activity. I. BIRO*; D. LINARO; M. GIUGLIANO. *Univ. of Antwerp, Ecole Polytechnique Fédérale de Lausanne, Univ. of Sheffield.*

8:00 F35 **520.09** Optogenetic investigation of local inhibitory circuitries in the nucleus of the solitary tract. J. A. CORSON*; R. M. BRADLEY. *Univ. of Michigan, Univ. of Michigan.*

9:00 F36 **520.10** Fast voltage sensitive dye imaging of functional connectivity in the rat retrosplenial cortex. K. NIXIMA*; T. KUROTANI; K. OKANOYA. *The Univ. of Tokyo, ERATO Okanoya Emotional Information Project, Japan Sci. and Technol. Agency, Emotional Information Joint Res. Laboratory, Riken Brain Sci. Inst.*

10:00 F37 **520.11** Layer V photo-stimulation efficiently recruits infragranular and supragranular cortical neurons. R. BELTRAMO; P. FARISELLO; T. FELLIN*. *Inst. Italiano di Tecnologia.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 F38 **520.12** Entorhinal cortical theta-frequency input to the dentate gyrus trisynaptically evokes hippocampal CA1 LTP *in vitro.* J. STEPAN*; J. DINE; T. FENZL; S. A. POLTA; A. URIBE; G. VON WOLFF; F. HOLSBOER; M. V. SCHMIDT; C. T. WOTJAK; M. EDER. *Max Planck Inst. of Psychiatry, Leopold-Franzens-University, Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry.*

8:00 F39 **520.13** Finite-size effects identify feed-forward dynamics of neuronal avalanches. S. YU*; A. KLAUS; H. YANG; D. PLENZ. *Natl. Inst. of Mental Hlth.*

9:00 F40 **520.14** ● Dorsal and ventral hippocampal CA1 pyramidal neurons activate distinct brain area: Optogenetic investigation using mouse fMRI. N. TAKATA*; Y. KOMAKI; Y. SAKAI; K. YOSHIDA; M. XU; K. HIKISHIMA; H. OKANO; M. MIMURA; K. F. TANAKA. *Keio Univ., Keio University, Sch. of Med., Kyoto Prefectural Univ. of Med., Keio University, Sch. of Med.*

10:00 F41 **520.15** Neuronal encoding and the site of action potential initiation. M. A. VOLGUSHEV*; V. ILIN; E. NIKITIN. *Univ. Connecticut, Univ. Connecticut, Inst. of Higher Nervous Activity and Neurophysiology, Russian Acad. of Sci.*

11:00 F42 **520.16** Effects of isoflurane on cortical UP state activity in brain slices. H. HENTSCHKE*; A. RAZ; B. M. KRAUSE; S. M. GRADY; M. I. BANKS. *Univ. Tuebingen, Univ. of Wisconsin, Univ. of Wisconsin.*

8:00 F43 **520.17** Reliability of network behaviour depends on excitation/inhibition balance and distribution of synaptic weight. S. RAY*; U. S. BHALLA. *NCBS.*

9:00 F44 **520.18** Exploration of the input-output relation of granule cells in the dentate gyrus. A. D. MADAR; L. A. EWELL; M. V. JONES*. *Univ. Wisconsin Madison, Univ. of California,.*

10:00 F45 **520.19** The GABAB modulation affects recurrent horizontal flow of activity & local synchrony in an 'Up-State' model of cortical functioning. R. G. PORT*; M. F. MCMULLEN; G. C. CARLSON. *Univ. Of Pennsylvania, Univ. of Pennsylvania.*

11:00 F46 **520.20** Regulation of dynamic range in CA1 pyramidal neurons by feedforward inhibition and background noise. A. KHUBIEH*; S. RATTE; S. A. PRESCOTT. *Hosp. For Sick Children, Ecole Polytechnique Federale de Lausanne (EPFL), Univ. of Toronto.*

8:00 G1 **520.21** Traveling alpha waves in the human electrocorticogram. H. ZHANG*; A. D. SHARAN; M. R. SPERLING; J. JACOBS. *Drexel Univ., Thomas Jefferson Univ., Drexel Univ.*

9:00 G2 **520.22** ● Repeated nerve block using charge balanced direct current through high surface area electrodes. T. L. VRABEC*; M. FRANKE; J. S. WAINRIGHT; N. BHADRA; N. BHADRA; K. L. KILGORE. *Case Western Reserve Univ., Case Western Reserve Univ., MetroHealth Med. Ctr., Stokes Cleveland Dept. Veterans Affairs Med. Ctr.*

10:00 G3 **520.23** ● Combined no-onset KHFAC+DC nerve block without nerve damage. M. FRANKE*; T. L. VRABEC; J. L. WAINRIGHT; N. BHADRA; N. BHADRA; K. L. KILGORE. *Case Western Reserve Univ., Metro Hlth. Med. Ctr., Louis Stokes VA Med. Ctr.*

11:00 G4 **520.24** Clustered thalamocortical input onto layer 5 pyramidal neurons detected using quantitative large-scale array tomography. J. RAH*; E. BAS; J. COLONELL; Y. MISHCHENKO; B. KARSH; R. FETTER; E. MYERS; D. CHKLOVSKII; K. SVOBODA; T. HARRIS; J. ISAAC. *Janelia Farm Res. Campus, Natl. Inst. of Neurolog. Disorders and Stroke, Natl. Inst. of Hlth., Dept. of Engineering, Toros Univ.*

POSTER

521. Astrocytes: Injury and Disease

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

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

8:00 G5 **521.01** ▲ Neuronal antioxidant defense contribution of astrocytes-derived exosomes containing ascorbic acid. P. TRONCOSO ESCUDERO*; F. BELTRÁN; F. COURT; M. CASTRO GALLASTEGUI. *Univ. Austral De Chile, Pontificia Univ. Católica de Chile.*

9:00 G6 **521.02** Noradrenaline attenuates hydrogen peroxide-induced cell death of astrocyte through the increase in the level of intracellular glutathione. H. KADOI*; Y. YOSHIOKA; A. YAMAMURO; Y. ISHIMARU; S. MAEDA. *Setsunan Univ.*

10:00 G7 **521.03** Noradrenaline protects neurons from hydrogen peroxide-induced death by increasing the supply of glutathione from astrocytes. S. MAEDA; A. YAMAMURO; Y. ISHIMARU; Y. AGO*; Y. YOSHIOKA. *Setsunan Univ., Osaka Univ.*

11:00 G8 **521.04** *In vitro* characterization of glial-derived neurotrophic factor upregulation, receptor internalization, and antioxidant adaptations to oxidative stress. C. E. BOND*; J. CRANMORE; S. FREGOSO; G. L. WRIGHT; D. B. HOOVER. *Eastern Tennessee State Univ.*

8:00 G9 **521.05** Age-dependent contribution of nitric oxide synthase to ischemic white matter injury. S. BALTAN*; J. ZALESKI; A. BACHLEDA; A. RUNKLE; S. BRUNET. *Cleveland Clin.*

9:00 G10 **521.06** Pathways for physiological accumulation of polyamines in astrocytes. Y. RIVERA*; M. INYUSHIN; Y. V. KUCHERYAVYKH; M. SALA-RABANAL; L. Y. KUCHERYAVYKH; J. BENEDIKT; A. ZAYAS-SANTIAGO; R. W. VEH; C. G. NICHOLS; M. J. EATON; S. N. SKATCHKOV. *Univ. Central Caribe, Washington Univ. Sch. of Med., Univ. Central Caribe, Univ. Central Caribe, Charite.*

10:00 G11 **521.07** Sex differences in glia activity within the periaqueductal gray: Role in pain and analgesia. L. N. EIDSON*; L. M. BUTKOVICH; H. H. DOYLE; A. Z. MURPHY. *Georgia State Univ., Georgia State Univ.*

11:00 G12 **521.08** Astrocytes are activated in the absence of microglial activation in chemotherapy-induced peripheral neuropathy models in rats. C. R. ROBINSON*; P. M. DOUGHERTY. *UT MD Anderson Cancer Ctr.*

8:00 G13 **521.09** Changes in astroglial volume, extracellular space geometry and K+ concentration in α-syntrophin deficient mice during cellular swelling. L. VARGOVA*; M. CICANIC; L. DMYTRENKO; J. TURECKOVA; M. ANDEROVA. *Charles University, 2nd Med. Fac., Inst. of Exptl. Med., Inst. of Exptl. Med.*

9:00 G14 **521.10** Stimulation-induced volume changes of the CA1 region in rat hippocampal slices. A. B. GUTWEIN; J. E. OLSON*. *Wright State Univ. Boonshoft Sch. Med., Wright State Univ. Boonshoft Sch. Med.*

10:00 G15 **521.11** The role of astrocytic swelling on neuronal excitability: Implications for both cerebral edema and epilepsy. K. LAUDERDALE*; T. FIACCO. *Univ. of California Riverside.*

11:00 G16 **521.12** Seizures and swelling: What role does astrocyte volume change play in high [K+]o-induced epileptiform activity? T. R. MURPHY*; T. A. FIACCO. *Univ. of California, Riverside.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 G17 **521.13** ▲ Glial aquaporin-4 water channels in substantia nigra: Implications for Parkinson's disease. K. STAHL; A. PRYDZ; M. NADEEM; N. DAVARPANEH; M. AMIRY-MOGHADDAM*. *Univ. Oslo, Inst. Basic Med. Sci., Univ. Oslo, Inst. Basic Med. Sci.*

9:00 G18 **521.14** NMO sera down-regulate the expression of aqp4 in human astrocyte and induce cytotoxicity independent of complement. H. HARUKI*; Y. SANO; F. SHIMIZU; M. OMOTO; A. TASAKI; M. OISHI; M. KOGA; T. FUKUSAKO; T. KANDA. *Dept. of Neurology, Yamaguchi Grand Med. Ctr., Yamaguchi Univ. Grad. Sch. of Med.*

10:00 G19 **521.15** Targeting inflammasome activation is a promising strategy to control seizures induction and recurrence. L. LIBRIZZI*; F. M. NOÈ; M. DE CURTIS. *Fondazione Inst. Neurologico C. Besta.*

11:00 G20 **521.16** Complement inhibitor protein cd59 modulates cytotoxicity and inflammation in neuromyelitis optica. H. ZHANG*; A. S. VERKMAN. *UCSF.*

8:00 G21 **521.17** Roles of aryl hydrocarbon receptor in the lipopolysaccharide-induced astrogliosis. Y. GAN; P. LEE; P. HSU; Y. YEH; Y. LEE*. *Natl. Yang-Ming Univ., Natl. Yang-Ming Univ.*

9:00 G22 **521.18** Induction of Krüppel-like factor 4 expression in reactive astrocytes following ischemic injury *in vitro* and *in vivo*. ; T. RIEW; Y. SHIN; J. PARK; J. CHO; M. LEE. *Dept. of Anatomy, Col. of Medicine, The Catholic Univ. of Korea.*

10:00 G23 **521.19** Optogenetic glial alkalization relieves ischemic brain damage. K. BEPPU*; T. SASAKI; K. F. TANAKA; A. YAMANAKA; Y. FUKAZAWA; R. SHIGEMOTO; K. MATSUI. *Natl. Inst. for Physiological Sci., Dept. of Neuropsychiatry, Sch. of Medicine, Keio Univ., Dept. of Neuroscience, Nagoya Univ. Res. Inst. of Envrn. Med., Dept. of Anat. and Mol. Cell Biology, Nagoya Univ. Grad. Sch. of Med., Tohoku Univ. Grad. Sch. of Med.*

11:00 G24 **521.20** Inhibition of astrocytic calcineurin/NFAT activity protects hippocampal synaptic function in an intact rat model of traumatic brain injury. C. M. NORRIS*; J. L. FURMAN; M. M. PLEISS; T. L. SUDDUTH; D. M. WILCOCK; S. W. SCHEFF. *Univ. Kentucky, Univ. of Kentucky Col. of Med., Univ. of Kentucky Col. of Med.*

8:00 G25 **521.21** Synaptogenic effects of astrocytic ephrinB1 in the adult mouse hippocampus following severe traumatic brain injury. A. M. NIKOLAKOPOULOU*; J. LEISH; S. MORTAZAVI; A. OBENAUS; I. M. ETHELL. *Univ. of California Riverside, Loma Linda Univ.*

9:00 G26 **521.22** Temporal patterns of the embryonic intermediate filament nestin in the hippocampus of mice after TMT treatment. S. LEE*; J. KIM; J. KIM; Y. SON; S. KIM; J. KIM; T. SHIN; C. MOON. *Chonnam Natl. Univ.*

10:00 G27 **521.23** Amygdala astrocytic responses to corticotropin-releasing factor and stress. L. H. CONTI*; L. M. O'KEEFE; S. MACISAAC; S. J. CROCKER. *Quinnipiac Univ., Univ. of Connecticut Hlth. Ctr., Univ. of Connecticut Hlth. Ctr.*

11:00 G28 **521.24** Astrocyte activation in pre-pubescent rats stressed by chronic environmental noise. O. HUET*; Y. RUVALCABA-DELGADILLO; R. GONZÁLEZ-CASTAÑEDA; J. GARCÍA-ESTRADA; A. FERIA-VELASCO; M. MACÍAS-ISLAS; S. LUQUIN. *Univ. De Guadalajara, IMSS.*

8:00 G29 **521.25** Expression of the mRNA of the α isoforms of the sodium pump in cerebellum of rats with nutritional stress. R. MERCADO*; G. NAVA; R. ESQUIVEL; C. S. BAUTISTA; O. A. SIFUENTES; O. GUZMÁN; F. BOLAÑOS. *U.M.S.N.H., U.M.S.N.H., INRA-UNIVERSITE DE NANTES.*

9:00 G30 **521.26** Mechanisms underlying Roundup®-induced neurotoxicity in immature rat hippocampus. A. ZAMONER PACHECO DE SOUZA*; D. CATTANI; V. L. L. O. CAVALLI; J. T. DOMINGUES; C. E. H. RIEG; C. M. ANDRADE; T. DAL-CIM; C. I. TASCA; F. R. M. B. SILVA. *Univ. Federal De Santa Catarina.*

10:00 G31 **521.27** Connexin43 phosphorylation impacts neuroprotection. C. C. NAUS*; M. FREITAS-ANDRADE; J. BECHBERGER; B. MACVICAR; P. LAMPE. *Univ. of British Columbia, Univ. of British Columbia, Fred Hutchinson Cancer Res. Ctr.*

11:00 G32 **521.28** Deimination as an astrocytic marker following temperature incubation. M. E. ALGECIRAS*; H. M. SERRA; S. K. BHATTACHARYA. *Univ. of Miami, Univ. Nacional de Cordoba.*

8:00 G33 **521.29** Gαh/TG2 promotes cAMP production accompanied by a modification of adenylylcyclase 8 in human and rat glioma cells. Y. OBARA*; Y. YANAGIHATA; T. ABE; L. DAFIK; K. ISHII; N. NAKAHATA. *Yamagata Univ., Tohoku Univ., Stanford Univ.*

9:00 G34 **521.30** Decreased expression of caveolin-1 in FABP7-deficient astrocytes and its impact on the membrane lipid raft formation. Y. KAGAWA*; M. EBRAHIMI; K. SHARIFI; A. ISLAM; Y. YASUMOTO; H. MIYAZAKI; S. KAWAMURA; Y. YAMAMOTO; T. SAWADA; N. TOKUDA; Y. OWADA. *Yamaguchi Univ. Grad. Sch. of Med.*

POSTER

522. Microglia: Signaling

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

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

8:00 G35 **522.01** Inflammatory pain behaviour is attenuated in GPR84 knock-out mice. L. C. NICOL*; C. GENTRY; D. MCINNERNEY; J. B. DAVIS; M. MALCANGIO; S. B. MCMAHON. *King's Col. London, Convergence Pharmaceuticals Ltd.*

9:00 G36 **522.02** Fosb gene products regulate expression of C5ar1 and C5l2 genes and microglial activation. H. NOMARU*; K. SAKUMI; D. TSUCHIMOTO; Y. NAKABEPPU. *Div. Neurofunc. Genomics, MIB, Kyushu Univ.*

10:00 G37 **522.03** Role of aryl hydrocarbon receptor in LPS-induced microglial activation. F. SHIE*; C. LIN; P. HSU; Y. YEH; Y. SUN; C. KUAN; J. ZHUO; Y. LEE. *Ctr. For Neuropsychiatric Research, Natl. Hlth. Res. Inst., Dept. of Nursing, Kang-Ning Junior Col. of Med. Care and Mgmt., Inst. of Physiology, Natl. Yang-Ming Univ., Dept. of Pediatrics (Neurology), Ctr. for Neurodegenerative Disease, Emory Univ. Sch. of Medicine., Grad. Inst. of Med. Sciences, Taipei Med. Univ.*

11:00 G38 **522.04** Dopamine attenuates LPS-induced cytokine expression in mouse microglial BV-2 cells. Y. SUGINO*; Y. YOSHIOKA; Y. WADA; A. YAMAMURO; Y. ISHIMARU; S. MAEDA. *Setsunan Univ.*

8:00 G39 **522.05** Up-regulation of secretory phospholipases A2-group V in microglial cells: role of ERK1/2 in IFN-γ and LPS induced inflammatory signaling pathways. Y. ZONG*; J. JIANG; D. Y. CHUANG; A. SIMONYI; G. Y. SUN. *Univ. of Missouri.*

9:00 G40 **522.06** Role of cytosolic phospholipase A2 in lipopolysaccharide- and interferon gamma-induced inflammatory responses in microglial cells. D. Y. CHUANG*; Y. ZONG; J. JIANG; A. SIMONYI; Z. GU; G. Y. SUN. *Univ. of Missouri, Univ. of Missouri, Univ. of Missouri.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 G41 **522.07** Adenosine A2A receptors control the metabolic changes associated with microglia activation as revealed by NMR isotopomeric analysis. C. LEMOS*; G. CRISTÓVÃO; I. JARAK; R. A. CUNHA; C. GOMES; R. A. CARVALHO. *Coimbra Univ., Coimbra Univ.*

11:00 G42 **522.08** Prostaglandin E2 exerts anti-inflammatory effects by inhibiting microglial production of superoxide through a novel pathway. S. CHEN*; E. OYARZABAL; J. HONG. *Natl. Inst. of Envrn. Hlth. Sci., Natl. Inst. of Envrn. Hlth. Sci.*

8:00 G43 **522.09** Inhibition of phosphoinositide-dependent P2X4 receptor channel by Gq-coupled P2Y6 receptor in microglia. L. BERNIER*; A. ASE; E. BOUE-GRABOT; P. SEGUELA. *Univ. of British Columbia, McGill Univ., Univ. Bordeaux Segalen.*

9:00 G44 **522.10** ▲ Involvement of microglial P2X7 receptors in morphine analgesic tolerance is mediated by mu-opioid receptor signalling. H. L. LEDUC-PESSAH; C. FAN; T. TRANG*. *Univ. of Calgary, Univ. of Calgary, Univ. of Calgary.*

10:00 G45 **522.11** Activation of poly(ADP-ribose) polymerase-1 in males and females: Comparisons using PAR immunostaining and a PARP activity assay. Y. CHEN*; S. WON; C. HEFNER; Y. SHEN; Y. XU; R. SWANSON. *Dept. of Neurology, Univ. of California, San Francisco, Dept. of Neurology, Affiliated Drum Tower Hosp. of Nanjing Univ. Med. School, 321 Zhongshan Road, Nanjing, Jiangsu, 210008, P. R. China.*

11:00 G46 **522.12** Activation of neuronal NMDA receptors triggers rapid microglial process outgrowth. L. DISSING-OLESEN*; J. LEDUE; R. RUNGTA; H. CHOI; B. MACVICAR. *Brain Res. Centre, Univ. of British Columbia.*

8:00 G47 **522.13** Characterization of cortical and sub-cortical glia following toll-like receptor stimulation. C. WINLAND*; S. G. DANIELE; A. G. EDWARDS; K. MAGUIRE-ZEISS. *Georgetown Univ., Georgetown Univ.*

9:00 G48 **522.14** Involvement of MAP kinase cascade in M-CSF-triggered microglial proliferation in transected rat facial nucleus. S. YAMAMOTO*; S. KOHSAKA; K. NAKAJIMA. *Dept. of Bioinformatics, Fac. of Engineering, Soka Univ., Dept. of Neurochemistry, Natl. Inst. of Neurosci.*

10:00 G49 **522.15** Osteopontin expression by dying neurons in oxygen-glucose-deprived hippocampal slice cultures. T. RIEW; Y. SHIN; J. PARK; H. KIM; M. LEE*. *Catholic Univ. Med. Col., Catholic Univ. Med. Col.*

POSTER

523. Alzheimer's Disease: Interventions

Theme C: Disorders of the Nervous System

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

8:00 G50 **523.01** Genetic depletion of tau prevents cognitive impairment in type 1 diabetes-like mouse model. D. BAGLIETTO-VARGAS*; S. ABBONDANTE; C. J. RODRIGUEZ-ORTIZ; T. ESTRADA-HERNANDEZ; R. MEDEIROS; F. M. LAFERLA. *Univ. of California, Irvine, Univ. of California, Merced.*

9:00 G51 **523.02** Effects of differential exercise training on hippocampal function using a triple-transgenic mouse model of Alzheimer's disease. T. D. TRAN*; Q. LU; S. BAREISS. *East Carolina Univ., East Carolina Univ., East Carolina Univ.*

10:00 G52 **523.03** Dissecting the role of mTOR in Alzheimer's disease. A. CACCAMO*; M. F. LÓPEZ-ARANDA; A. J. SILVA; S. ODDO. *Univ. of Texas Hlth. Sci. Ctr. SA, UCLA.*

11:00 G53 **523.04** Mitochondrial O-GlcNAc modification in the brains of 5XFAD mice. H. CHOI*; C. KIM; M. CHA; I. MOOK-JUNG. *Seoul Natl. Univ.*

8:00 G54 **523.05** Mesenchymal stem cells enhance autophagy and increase beta-amyloid clearance in Alzheimer's disease models. J. SHIN*; H. PARK; H. KIM; S. OH; P. LEE. *Yonsei Univ. Col. of Med.*

9:00 G55 **523.06** ● Enhancing the lysosomal degradation pathway promotes clearance of Aβ42 and α-synuclein in transgenic mouse models. U. S. IKONNE; J. HWANG; B. A. BAHR*. *Biotech Ctr. / William C. Friday Lab.*

10:00 G56 **523.07** Copper lowering therapy for Alzheimer's disease. K. VOSS*; C. HARRIS; J. QUINN. *Oregon Hlth. and Sci. Univ.*

11:00 G57 **523.08** Pharmacological inhibition of BACE1 interferes with synaptic plasticity. S. FILSER*; C. K. E. JUNG; S. V. OVSEPIAN; A. B. ELVANG; C. VOLBRACHT; J. HERMS. *DZNE, Lundbeck.*

8:00 G58 **523.09** Anti-amyloid pathogenic activity of a metal and Aβ-interacting molecule. J. LEE*; S. OH; C. BYUN; M. LIM. *Asan Inst. For Life Sci., Asan Inst. for Life Sci., Univ. of Michigan.*

9:00 G59 **523.10** Methylene blue reverses behavioral impairment and ameliorates cerebral amyloidosis in PSAPP mice. T. MORI*; N. KOYAMA; T. SEGAWA; N. KINOSHITA; H. HOU; J. TAN; T. TOWN. *Saitama Med. Ctr./Univ., IBL Co., Ltd., Rashid Lab. for Developmental Neurobiol., Silver Child Develop. Ctr., Zilkha Neurogenetic Inst.*

10:00 G60 **523.11** L-3-n-butylphthalide improves cognitive impairment in a transgenic ad mouse model. Y. PENG*; Y. HU; S. XU; J. LI; L. WANG; X. WANG. *Inst. of Materia Medica.*

11:00 H1 **523.12** Subchronic donepezil prevents amyloid-beta-induced memory disruption in the rat. S. WAGNER*; E. POIRAUD; N. KADOUCI; E. ANDRIAMBELOSON. *NEUROFIT.*

8:00 H2 **523.13** ● Therapeutic effect of cholinesterase inhibitors rivastigmine, donepezil and tacrine on cognitive deficit induced by 3-quinuclidinyl benzilate in rats performing passive avoidance test. J. MISIK*; K. MUSILEK; K. KUCA; J. KASSA; O. SOUKUP. *Fac. of Military Hlth. Sci., Fac. of Military Hlth. Sci., Univ. Hosp.*

9:00 H3 **523.14** Effects of caffeine intake and adenosine A2A receptor deletion in a transgenic model of Alzheimer's disease-like Tau pathology. D. BLUM*; C. LAURENT; S. BURNOUF; B. FERRY; E. MARCINIAK; M. DERISBOURG; S. EDDARKAOUI; S. PARROT; D. DEMEYER; C. LEDENT; C. MÜLLER; N. SERGEANT; M. HAMDANE; S. HUMEZ; L. LOPES; L. BUEE. *Inserm U837, Alzheimer & Tauopathies, Inserm U1028, Ctr. de Recherche en Neurosciences, IRIBHM, Pharmaceut. Institute, Univ. of Bonn, Inst. de Medicina Molecular, Faculdade de Medicina de Lisboa.*

10:00 H4 **523.15** ● Intravenous neprilysin reduces peripheral Aβ in mouse but does not correlate with brain amyloid burden. A. M. SCHUMACHER*; R. PACOMA; J. WATSON; W. OU; J. ALVES; D. E. MASON; E. C. PETERS; H. D. URBINA; G. WELZEL; A. ALTHAGE; B. LIU; T. TUNTLAND; L. H. JACOBSON; J. L. HARRIS; J. R. WALKER. *Novartis, Genomics Inst. of the Novartis Res. Fndn., Novartis Inst. for Biomed. Res.*

11:00 H5 **523.16** Centella asiatica protects against the toxic effects of intracellular β-amyloid accumulation. N. E. GRAY*; J. MORRE; J. KELLEY; C. S. MAIER; J. F. STEVENS; A. SOUMYANATH; J. F. QUINN. *Oregon Hlth. and Sci. Univ., Oregon State Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 H6 **523.17** ● The histamine H3 receptor antagonist SAR110894D prevents the development of Tau neurofibrillary tangles and improves cognitive deficits in a mouse model of tauopathy. J. STEMMELIN; V. BLANCHARD; N. SCHUSSLER; M. LOPEZ-GRANCHA; J. MENAGER; V. MARY; P. DELAY-GOYET; G. A. BOHME*; T. ROONEY; L. PRADIER; J. J. ALAM; S. CLAUDEL; P. BARNEOUD. *Sanofi Resarch & Develop., Sanofi-Aventis Resarch & Develop.*

9:00 H7 **523.18** Mesenchymal stem cells increase hippocampal neurogenesis and neuronal differentiation by enhancing the Wnt signaling pathway in Alzheimer's disease model. H. PARK*. *Yonsei Univ. Col. of Med.*

10:00 H8 **523.19** ● Selectivity and pharmacokinetic profile of highly oligomer-specific amyloid-beta antibodies. S. BARGHORN*; A. STRIEBINGER; S. GIAISI; B. BEHL; E. TARCSA; C. GRINNELL; H. HILLEN. *AbbVie GmbH & Co KG, AbbVie Bioresearch Ctr.*

11:00 H9 **523.20** ● A lipoprotein receptor cluster IV mutant preferentially binds amyloid-β and regulates its clearance from the mouse brain. A. P. SAGARE*; R. D. BELL; A. SRIVASTAVA; J. D. SENGILLO; I. SINGH; Y. NISHIDA; N. CHOW; B. V. ZLOKOVIC. *USC, Ctr. for Neurodegenerative and vascular Brain Disorders, Univ. of Rochester, ZZ Alztech.*

8:00 H10 **523.21** AAV-mediated delivery of apoE2 to reduce AD neuropathology in transgenic mice. L. ZHAO*; A. J. GOTTESDIENER; M. LI; C. M. GREVSTAD; S. M. KAMINSKY; M. J. CHIUCHIOLO; D. SONDHI; R. G. CRYSTAL; S. M. PAUL. *Weill Cornell Med. Col., Washington Univ. Sch. of Med., Weill Cornell Med. Col.*

9:00 H11 **523.22** Activation of β1-adrenergic receptor rescues social memory deficit in the mouse model of Alzheimer's disease. P. MEMAR ARDESTANI*; L. COUTELLIER; M. SHAMLOO. *Stanford Univ.*

10:00 H12 **523.23** A pyrazole derivative of curcumin improved brain insulin resistance and cognitive decline in a transgenic mouse model of Alzheimer's disease. Q. MA*; X. ZUO; F. YANG; Q. CHEN; S. A. FRAUTSCHY; G. M. COLE. *UCLA, Greater Los Angeles Veterans Affairs Healthcare Syst., Greater Los Angeles Veterans Affairs Healthcare Syst.*

11:00 H13 **523.24** Development of novel *in vivo* molecular probes for CNS serine-threonine protein kinases that modulate synaptic dysfunction. O. ARANCIO; V. L. GRUM-TOKARS; S. M. ROY; J. P. SCHAVOCKY; B. BRADARIC; A. D. BACHSTETTER; B. XING; E. DIMAYUGA; F. SAEED; H. ZHANG; A. STANISZEWSKI; J. C. PELLETIER; G. MINASOV; W. F. ANDERSON; L. J. VAN ELDIK*; D. WATTERSON. *Columbia Univ., Northwestern Univ., Univ. of Kentucky, Univ. of Kentucky.*

8:00 H14 **523.25** Neuronal and astrocytic differentiation following transcranial focused ultrasound. T. SCARCELLI*; J. F. JORDAO; N. ELLENS; M. O'REILLY; K. HYNYNEN; I. AUBERT. *Sunnybrook Res. Inst., Sunnybrook Res. Inst., Sunnybrook Res. Inst.*

9:00 H15 **523.26** Neuroprotective effect of flavonoids in a triple transgenic Alzheimer's disease mice model. G. P. CARDONA GOMEZ*; A. M. SABOGAL-GUÁQUETA, 1; J. MUÑOZ-MANCO, 2; N. CORTEZ-RENDÓN, 3; R. RAMIREZ-PINEDA, 4; E. OSORIO-DURANGO, 5. *Univ. Antioquia.*

10:00 H16 **523.27** The Ly-6 proteins prostate stem cell antigen (PSCA) and Ly6H are increased in frontal cortex in Alzheimer's disease. M. M. JENSEN*; J. D. MIKKELSEN; M. S. THOMSEN. *Neurobio. Res. Unit.*

POSTER

524. Alzheimer's Disease: *In Vitro* Therapeutics

Theme C: Disorders of the Nervous System

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

8:00 H17 **524.01** Estrogen amelioration of Abeta induced defects in mitochondria is mediated by a signaling pathway involving Drp1,ER-beta, and AKAP. S. N. SARKAR*; J. W. SIMPKINS. *WEST VIRGINIA UNIVERSITY, wvu.*

9:00 H18 **524.02** Dimebon/Latredipine is a potent activator of AMP-activated protein kinase (AMPK) and reduces neuronal excitability. P. WEISOVA*; S. PEREZ ALVAREZ; S. KILBRIDE; U. ANILKUMAR; B. BAUMANN; J. JORDÁN; T. BERNAS; H. J. HUBER; H. DÜSSMANN; J. H. M. PREHN. *Vienna Biocenter, Royal Col. of Surgeons in Ireland, Univ. de Castilla-La Mancha, Nencki Inst. of Exptl. Biol.*

10:00 H19 **524.03** Mild inhibition of the mitochondrial pyruvate carrier is neuroprotective and potentiates metabolic flexibility. A. S. DIVAKARUNI; A. Y. ANDREYEV; T. P. CIARALDI; A. N. MURPHY*. *UCSD, Univ. of California, San Diego, and VA San Diego Hlth. Syst., UCSD.*

11:00 H20 **524.04** Mitochondrial dysfunction is associated with impairments in synaptic plasticity and memory in the TgCRND8 and 3xTg mouse models of Alzheimer's disease. W. SNOW; S. R. CHOWDHURY; S. ALASHMALI; C. R. LIAO; K. OIKAWA; M. RAK; E. THOMSON; C. HIRSCHMUGL; E. PLATT; M. SUH; K. GOUGH; P. FERNYHOUGH; B. C. ALBENSI*. *Univ. of Manitoba, Univ. of Manitoba, Univ. of Manitoba, St. Boniface Res. Ctr., Univ. of Wisconsin.*

8:00 H21 **524.05** ● Uptake of tau antibodies and paired helical filament enriched tau protein in naïve and transfected human neuroblastoma cells. D. B. SHAMIR*; N. ROSENQVIST; M. D. GREGORY; S. RASOOL; J. T. PEDERSEN; E. M. SIGURDSSON. *New York Univ. Sch. of Med., H. Lundbeck A/S, New York Univ. Sch. of Med., New York Univ. Sch. of Med.*

9:00 H22 **524.06** ▲ Mitochondria-targeted plastoquinone antioxidant SkQ1 prevents amyloid-β-induced impairment of long-term potentiation in rat hippocampal slices. V. G. SKREBITSKY*; N. A. KAPAY; O. V. POPOVA; E. V. STELMASHOOK; R. V. KONDRATENKO; N. K. ISAEV; D. B. ZOROV; V. P. SKULACHEV. *Res. Ctr. of Neurology, Russian Acad. of Med. Sciens, Lomonosov Moscow State University, Belozersky Inst. of Physico-Chemical Biol.*

10:00 H23 **524.07** The effect of SIRT1 on the protein degradation in cholinergic neuron. T. KIM*; H. SEO. *Hayang Univ.*

11:00 H24 **524.08** Combination of ketamine and AMPA promotes survival of cells expressing amyloid-beta and presenilin: Implication for Alzheimer's disease. L. AKINFIRESOYE*; K. F. MANAYE; Y. TIZABI. *Howard Univ. Col. of Med., Howard Univ. Col. of Med.*

8:00 H25 **524.09** The effects of selective histone deacetylase inhibitors in cholinergic neurons. H. NOH*; H. SEO*. *Hanyang Univ.*

9:00 H26 **524.10** Hybrids of AChE inhibitor and memantine derivatives as candidates for Alzheimer´s disease treatment. O. SOUKUP*; J. KORABECNY; K. MUSILEK; D. JUN; J. ZDAROVA KARASOVA; J. MISIK; K. KUCA. *Univ. of Defence, Univ. Hosp. Hradec Kralove, Univ. of Defence, Univ. of Hradec Kralove, Univ. of Defence.*

10:00 H27 **524.11** Mild impairment of the citric acid cycle in neurodegenerative diseases promotes mitophagy/autophagy. K. BANERJEE*; T. DENTON; G. E. GIBSON. *Weill-Cornell Med. Col. at Burke Med. Res. Inst., Eastern Washington Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 H28 **524.12** Rexinoids enhance LXR target gene expression in primary microglia and astrocytes. M. LAKNER*; C. E. WAGNER; P. E. CRAMER; G. E. LANDRETH. *Case Western Reserve Univ., Arizona State Univ.*

8:00 H29 **524.13** Cyclopamine modulates APP metabolism and decreases Aβ generation. A. G. VOROBYEVA*; S. MILLER; R. LEE; P. KHANDELWAL; G. DISTEFANO; A. GANGEMI; D. MARENDA; A. SAUNDERS. *Drexel Univ.*

9:00 H30 **524.14** Diet-enriched in palmitate triggers Alzheimer's like pathology. O. GHRIBI*; S. RAZA. *UND Med. Sch.*

POSTER

525. Beta and Gamma Secretase, BACE, and Presenilin

Theme C: Disorders of the Nervous System

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

8:00 H31 **525.01** Elevated lysosomal pH and autophagy dysfunction in human fibroblasts bearing the Alzheimer's-associated presenilin 1 A246E mutation can be ameliorated with cAMP. E. E. COFFEY*; J. M. BECKEL; A. M. LATIES; C. H. MITCHELL. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

9:00 H32 **525.02** γ-Secretase inhibitor LY450139 does not impair cognitive function in wild type mice. N. DEVIDZE*; S. SANKARANARAYANAN; B. SNYDER; D. BRYCE; A. LIN; C. POLSON; S. KEENAN; R. OLSON; J. TOYN; C. CONWAY; C. F. ALBRIGHT; J. MEREDITH; M. AHLIJANIAN. *Bristol-Myers Squibb, Bristol-Myers Squibb.*

10:00 H33 **525.03** Investigating the effects of β-secretase inhibitor, GRL-8234, on age-dependent synaptic deficits in APPswe;PS1deltaE9 mice. A. L. MEGILL*; P. C. WONG; A. KIRKWOOD; H. HOE; H. LEE. *Johns Hopkins Univ., Johns Hopkins Univ., Georgetown Univ.*

11:00 H34 **525.04** Palmitate induces transcriptional regulation of BACE1 and presenilin by STAT3 in neurons mediated by astrocytes. L. LIU*; R. MARTIN; C. CHAN. *Michigan State Univ.*

8:00 H35 **525.05** Blockage of the cholesterol biosynthesis reduces γ -secretase activity and Aβ generation. Y. KIM*. *Seoul Natl. Univ.*

9:00 H36 **525.06** ● BACE 1 contributes to impaired neural network function and neuritic dystrophy in cortical neurons generated from patients with Alzheimer's disease. V. DANG*; J. BRIGHT; S. HUSSAIN; L. NGUYEN; E. BEATTI; Z. YANG; S. WRIGHT; U. SHOUKAT-MUNTAZ; J. DIMOS; S. OIRION; P. CONLEY; N. STAGLIONO; I. GRISWALD-PRENNER. *Ipierian Inc.*

10:00 I1 **525.07** Presenilin maintains lysosomal calcium homeostasis by regulating v-ATPase-mediated lysosomal acidification. J. LEE; D. WOLFE; M. MCBRAYER; L. HASLETT; A. KUMAR; Y. SATO; P. MOHAN; E. COFFEY; C. MITCHELL; E. LLOYD-EVANS; R. A. NIXON*. *Nathan Kline Inst., New York Univ. Langone Med. Ctr., Cardiff Univ., New York Univ. Langone Med. Ctr., Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania, New York Univ. Langone Med. Ctr/Nathan Kline Inst., New York Univ. Langone Med. Ctr.*

11:00 I2 **525.08** CALM impacts on Aβ42 production ratio through modulation of clathrin-mediated endocytosis of γ-secretase. K. KANATSU*; Y. MOROHASHI; T. WATANABE; T. TOMITA; T. IWATSUBO. *Dept Neuropathol & Neurosci, Univ. Tokyo Grad Sch. Pharmaceu Sci., Dept Biol Sci, Nara Women's Univ. Grad Sch. Hum & Sci., Dept Neuropathol, Univ. Tokyo Grad Sch. Med.*

8:00 I3 **525.09** Generation of a faithful model for familial Alzheimer's disease with presenilin-1 mutations. V. KURTH; I. OGOREK; T. JUMPERTZ; C. U. PIETRZIK; J. LOPEZ-RIOS; S. WEGGEN*. *Heinrich-Heine-University, Univ. Med. Ctr. of the Johannes-Gutenberg-University, Univ. of Basel.*

9:00 I4 **525.10** GGA3 deletion accelerates bace1 elevation and anxiety-like phenotype in 5XFAD mice. W. KIM*; K. R. WALKER; E. L. KANG; J. DONG; P. HAYDON; G. TESCO. *Tufts Univ. Sch. of Med.*

10:00 I5 **525.11** ● Pyroglutamate abeta are actively produced by cathepsin B beta-secretase in a transgenic Alzheimer's disease mouse model and neuronal-like chromaffin cells. G. R. HOOK*; J. YU; M. KINDY; V. HOOK. *ALSP, Inc., Med. Univ. of South Carolina, Applied Neurotechnology, Inc., Ralph H. Johnson VA Med. Ctr., UCSD.*

POSTER

526. Parkinson's Disease: Human Studies Imaging

Theme C: Disorders of the Nervous System

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

8:00 I6 **526.01** ● Incidence and modulation of resting state subthalamic nucleus beta rhythm in Parkinson's disease. L. A. SHREVE*; A. VELISAR; N. M. SHANIDZE; B. C. HILL; C. KILBANE; J. M. HENDERSON; H. YU; H. BRONTE-STEWART. *Stanford Univ. Sch. of Med., Stanford Hosp. and Clinics.*

9:00 I7 **526.02** ● Resolution of rest tremor reveals underlying subthalamic nucleus beta band synchrony in Parkinson's disease. A. VELISAR; L. A. SHREVE; B. C. HILL; H. YU; J. M. HENDERSON; H. BRONTE-STEWART*. *Stanford Univ., Stanford Univ.*

10:00 I8 **526.03 Withdrawn.**

11:00 I9 **526.04** Synchronization of globus pallidus neurons to cortical oscillatory activity in humans with Parkinson's disease and primary dystonia. N. C. SWANN*; C. DE HEMPTINNE; E. RYAPOLOVA-WEBB; J. OSTREM; P. STARR. *Univ. of California, San Francisco, Univ. of California, San Francisco.*

8:00 I10 **526.05** STN-Cortex functional connectivity in de novo pd, moderate pd, et, msap, and psp. A. S. KURANI*; R. D. SEIDLER; C. M. COMELLA; D. M. CORCOS; M. S. OKUN; N. R. MCFARLAND; D. E. VAILLANCOURT. *Univ. of Illinois at Chicago, Univ. of Michigan, Rush Univ. Med. Ctr., Univ. of Illinois at Chicago, Univ. of Florida, Univ. of Florida.*

9:00 I11 **526.06** Resting-state functional network reorganization in Parkinson's disease. P. LAURO; S. TINAZ*; P. MALONE; C. LUNGU; M. HALLETT; S. HOROVITZ. *NIH/NINDS, NIH/NINDS.*

10:00 I12 **526.07** Spatial patterns of diffusion tensor imaging in Parkinson's disease. S. LIN*; J. KOK; A. GRAG; M. F. BEG; M. J. MCKEOWN. *Pacific Parkinson's Res. Ctr., Grad. Program in Neuroscience, Univ. of British Columbia, Sch. of Engin. Science, Simon Fraser Univ.*

11:00 I13 **526.08** Functional connectivity changes in early-stage Parkinson's disease. P. BOORD*; E. COLLINS; M. ASKREN; T. J. GRABOWSKI, Jr. *Univ. of Washington.*

8:00 I14 **526.09** Cerebellar resting state functional connectivity in Parkinson's patients on and off medication. S. FESTINI*; J. A. BERNARD; Y. KWAK; S. PELTIER; N. I. BOHNEN; M. L. T. M. MULLER; P. DAYALU; R. D. SEIDLER. *Univ. of Michigan, Univ. of Colorado Denver, Duke Univ., Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 I15 **526.10** Neuronal oscillation patterns in the subthalamic nucleus and the ventrolateral thalamus in patients with Parkinson's disease. P. ZHUANG*; M. HALLETT; S. GUO; L. HE; Y. ZHANG; J. LI; Y. LI. *Xuanwu Hosp, Capital Med. Uni, HMCS, NINDS, NIH.*

10:00 I16 **526.11** Differences in dopaminergic disruption between dementia with Lewy bodies and Parkinson's disease. K. OKITA*; K. ISHII; K. ODA; M. SAKATA; J. TOYOHARA; M. IYO; K. KANEMARU; S. MURAYAMA; K. ISHIWATA. *UCLA Lab. of Mol. Neuroimaging, Tokyo Metropolitan Inst. of Gerontology, Chiba University, Grad. Sch. of Med., Tokyo Metropolitan Geriatric Hosp., Tokyo Metropolitan Inst. of Gerontology.*

11:00 I17 **526.12** Parkinson's disease patients: Plasma cytokine profile. C. WAKADE*; J. MORGAN; R. LUCAS; S. SRIDHAR; R. SUHAG; R. CHONG. *Georgia Regents Univ., Georgia Regents Univ., Georgia Regents Univ., Georgia Regents Univ., Georgia Regents Univ.*

8:00 I18 **526.13** Amazing astrocytic activation in parkinsonism. G. CHARRON*; E. DOUDNIKOFF; N. SOLARI; M. CANRON; J. BAUFRETON; C. VEGA-ROÏATTI; E. BOUE-GRABOT; S. OLIET; E. BEZARD. *IMN CNRS UMR 5293, IMN UMR 5293, Neurocentre Magendie INSERM U862.*

9:00 J1 **526.14** Neurotoxic insults upregulate Prokineticin-2 levels in Parkinson's disease models and in PD patients. M. L. NEAL; R. GORDON; H. JIN; V. ANANTHARAM; A. G. KANTHASAMY*; A. KANTHASAMY. *Iowa State Univ.*

10:00 J2 **526.15** Alpha-synuclein in the colonic submucosa of PD compared to MSA patients. H. B. DODIYA*; K. M. SHANNON; A. KESHAVARZIAN; J. H. KORDOWER. *Rush Univ. Med. Ctr.*

11:00 J3 **526.16** The NINDS Repository Biomarkers Discovery Collection: a public resource of biomaterials for neurodegenerative disease research. M. J. SELF*; K. GWINN; M. SUTHERLAND; C. A. PÉREZ; W. MUHAMMAD; G. M. BALABURSKI; J. GILROY; M. FRASIER; L. VINCENT; R. A. CORRIVEAU; C. TARN. *Coriell Inst. For Med. Res., Natl. Inst. for Neurolog. Disorders and Stroke-NIH, Michael J Fox Fndn.*

8:00 J4 **526.17** Cortical thinning and subcortical white matter changes in Parkinson's disease. ; B. SEGURA; L. CHRISTOPHER; A. E. LANG; S. HOULE; A. P. STRAFELLA. *Ctr. For Addiction and Mental Hlth., Toronto Western Hosp. & Res. Inst.*

9:00 J5 **526.18** Cerebellar networks with basal ganglia: Degeneration of cerebello-pallidal and nigro-striatal projections in PD. E. A. PELZER; A. HINTZEN; C. MELZER; A. SCHÖNEBERGER; D. Y. VON CRAMON; L. TIMMERMANN; M. TITTGEMEYER*. *MPI For Neurolog. Res., Univ. Hosp. of Cologne.*

10:00 J6 **526.19** Functional and structural neuroimaging of Parkinson's disease and the parkinsonian variant of multiple system atrophy. P. J. PLANETTA*; P. SHUKLA; A. S. KURANI; D. M. CORCOS; C. L. COMELLA; N. R. MCFARLAND; M. S. OKUN; D. E. VAILLANCOURT. *Univ. of Florida, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago, Rush Univ. Med. Ctr., Univ. of Florida.*

11:00 J7 **526.20** The effects of MR field strength on connectivity-based segmentation of the SN/VTA using diffusion tensor imaging at 3 and 7-tesla. M. BETTS*; J. KAUFMANN; M. KANOWSKI; K. NEUMANN; P. SCHULZE; E. DÜZEL. *German Ctr. For Neurodegenerative Dis. (DZNE), Otto-von-Guericke Univ. Magdeburg, Inst. of Cognitive Neurol. and Dementia Res.*

8:00 J8 **526.21** Characterizing PD tremor using smartphone measurements of patient daily behavior. M. YAZDANI*; G. G. GAMBLE; W. C. LENNON, Jr. *UCSD.*

9:00 J9 **526.22** ● Deep brain stimulation tractography-activation models developed with 7T MRI data. K. GUNALAN*; A. CHATURVEDI; Y. DUCHIN; G. SAPIRO; N. HAREL; C. MCINTYRE. *Case Western Reserve Univ., Univ. of Minnesota, Duke Univ.*

10:00 J10 **526.23** Alterations of intrinsic functional connectivity in Parkinson's disease. T. MADHYASTHA*; M. ASKREN; E. COLLINS; T. GRABOWSKI. *Univ. of Washington, Univ. of Washington.*

11:00 J11 **526.24** Disruption of default mode network functional connectivity in Parkinson's disease. M. C. CAMPBELL*; J. M. KOLLER; E. R. FOSTER; A. Z. SNYDER; J. S. PERLMUTTER. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

8:00 J12 **526.25** Spectral distributions of STN local field potential in the beta band are more dynamic in movement compared to rest in subjects with Parkinson's disease. M. MILLER KOOP*; H. BRONTE-STEWART. *Stanford Univ.*

9:00 J13 **526.26** ● Sixty hertz deep brain stimulation does not attenuate subthalamic nucleus beta rhythm in Parkinson's disease. H. BRONTE-STEWART; L. A. SHREVE; B. C. HILL; H. YU; J. M. HENDERSON; A. VELISAR*. *Stanford Univ., Stanford Univ.*

10:00 J14 **526.27** Full-length proteoforms of α-synuclein from human brain tissue by top-down mass spectrometry. J. B. WATSON*; T. A. SARAFIAN; C. M. RYAN; P. SOUDA; E. MASLIAH; U. K. KAR; H. V. VINTERS; G. W. MATHERN; K. F. FAULL; J. P. WHITELEGGE. *David Geffen Sch. Med. UCLA, UCSD, David Geffen Sch. Med. UCLA, David Geffen Sch. Med. UCLA.*

11:00 J15 **526.28** Human embryonic dopamine neurons transplanted into putamen of Parkinson patients survive for at least 22 years without immunosuppression. C. R. FREED*; R. E. BREEZE; W. M. ZAWADA; S. FAHN; D. EIDELBERG; S. JONES; W. ZHOU. *Univ. Colorado Sch. of Med., Univ. Colorado Sch. of Med., Univ. Colorado Sch. of Med., Columbia Presbyterian Med. Ctr., North Shore Univ. Hosp.*

8:00 J16 **526.29** Correlation between altered cerebrospinal fluid levels of α-Synuclein and Aβ1-42 in Parkinson disease. C. BUDDHALA*; M. CAMPBELL; J. S. PERLMUTTER; P. T. KOTZBAUER. *Washington Univ. Sch. of Med.*

9:00 J17 **526.30** The effect of subthalamic nucleus deep brain stimulation on effective connectivity within the basal ganglia motor loop. J. KAHAN*; M. URNER; A. MARREIROS; R. MORAN; L. ZRINZO; M. HARIZ; P. LIMOUSIN; K. FRISTON; T. FOLTYNIE. *UCL Inst. of Neurol., UCL Inst. of Cognitive Neurosci., Virginia Tech. Carilion Res. Inst., Wellcome Trust Ctr. for Neuroimaging, UCL.*

POSTER

527. Parkinson's Disease: Clinical Therapies

Theme C: Disorders of the Nervous System

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

8:00 J18 **527.01** Application of temporally non-regular deep brain stimulation to a control theory model of the parkinsonian basal ganglia. C. M. DAVIDSON*; A. M. DE PAOR; M. M. LOWERY. *Rm. 149, Rm. 152.*

9:00 K1 **527.02** ● The evolution of lead fixation techniques in deep brain surgery. B. BROWN*; C. VAN HORNE. *Univ. of Kentucky.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 K2 **527.03** ● Optimized temporal patterns of deep brain stimulation reduce parkinsonian symptoms at low frequencies. D. T. BROCKER*; B. D. SWAN; R. Q. SO; D. A. TURNER; R. E. GROSS; W. M. GRILL. *Duke Univ., Duke Univ., Emory Univ., Duke Univ.*

11:00 K3 **527.04** Mobility in Parkinson's disease is improved through classical ballet-based instruction. M. V. ALBERT*; W. GOMEZ; A. MISKOVICK; C. LOPEZ-ORTIZ. *Northwestern Univ.*

8:00 K4 **527.05** ● Effects of istradefylline alone and in combination with levodopa on motor and cognitive function in the MPTP-treated macaque model of Parkinson disease. E. Y. PIOLI*; Q. LI; J. YANG; A. CROSSMAN; E. BEZARD; J. S. SCHNEIDER. *MOTAC, Inst. of Neurodegenerative Dis., Thomas Jefferson Univ.*

9:00 K5 **527.06** ● Positive signals from biomarkers predict YKP10461 will be effective in Parkinson's disease. D. P. TAYLOR*; E. GRAHAM; A. PEGAN; H. W. KIM; W. HAN. *SK Life Sci.*

10:00 K6 **527.07** Peripheral nerve graft implants into the substantia nigra of subjects with Parkinson's disease undergoing deep brain stimulation surgery: A safety study. J. E. QUINTERO*; W. S. Z. ASFAHANI; F. ZAHEER; J. A. GURWELL; G. A. GERHARDT; J. T. SLEVIN; C. G. VAN HORNE. *Univ. Kentucky, Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky.*

11:00 K7 **527.08** ● Impedance reliability across neuromodulation devices during neurostimulator replacement. E. L. HARGREAVES*; R. J. DITOTA; S. WONG; S. F. DANISH. *Robert Wood Johnson Med. Sch., Robert Wood Johnson Med. Sch.*

8:00 K8 **527.09** Monitoring the effects of subthalamic nucleus deep brain stimulation on sensorimotor cortex and peripheral muscles. J. P. MENON*; M. MIYAKOSHI; S. LESSIG; S. MAKEIG; D. BARBA. *Univ. of California, San Diego Neurosurg., Univ. of California, San Diego Swartz Ctr. for Computat. Neurosci., Univ. of California, San Diego Neurosci.*

9:00 K9 **527.10** ● Subthalamic nucleus stimulation induces cortical and corticospinal plasticity in Parkinson's disease. D. WEISS*; R. KLOTZ; R. GOVINDAN; M. SCHOLTEN; C. PLEWNIA; F. BUNJES; A. GHARABAGHI; R. KRÜGER. *Hertie Inst. For Clin. Brain Research, and German Ctr. For Neurodegener, Hertie Inst. For Clin. Brain Research, and German Ctr. For Neurodegenerative Dis., Div. of Fetal and Transitional Medicine, Children's Natl. Med. Cente, Dept. for Interventional Psychiatry, Tübingen, Germany, Werner Reichardt Ctr. for Integrative Neuroscience, and Dept. of Neurosurg.*

10:00 K10-DP3 **527.11** Subthalamic deep brain stimulation synchronizes cortical activity in humans with Parkinson's disease: Intraoperative investigation of single unit discharges and scalp potentials. H. C. WALKER*; C. L. GONZALEZ; H. HUANG; B. L. GUTHRIE. *UAB.*

11:00 K11 **527.12** The effect of magnetic resonance imaging (mri) sequences on the settings and impedances of the activa pc/sc. R. P. PATEL*; C. S. OZA; S. F. DANISH; E. L. HARGREAVES. *Robert Wood Johnson Med. Sch., Drexel Univ.*

8:00 K12 **527.13** Impedance variability of the activa PC/SC across intervals of days to months during which the stimulating parameters are held constant. N. V. PATEL*; D. L. CAPUTO; R. J. DIPAOLA; D. MCMULLEN; S. F. DANISH; E. L. HARGREAVES. *Robert Wood Johnson Med. Sch., Robert Wood Johnson Med. Sch.*

9:00 L1 **527.14** Intensity-dependent modulation of motor skill acquisition in Parkinson's disease by transcranial direct current stimulation. B. J. POSTON*; R. R. WALSH; E. L. HEISLER; J. L. ALBERTS. *Cleveland Clin. Lou Ruvo Ctr. For Brain Hlth., Cleveland Clin. Fndn.*

10:00 L2 **527.15** ● Lack of effect of donepezil, a central cholinesterase inhibitor, on motor or cognitive performance in the MPTP macaque model of Parkinson's disease. A. R. CROSSMAN*; E. PIOLI; Q. LI; J. S. SCHNEIDER; E. BEZARD. *The Univ. of Manchester, Motac Neurosci., Thomas Jefferson Univ., Inst. of Neurodegenerative DIseases.*

POSTER

528. Huntington's Disease: Animal Models II

Theme C: Disorders of the Nervous System

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

8:00 L3 **528.01** Stereological analysis of neuronal loss in the striatum of a transgenic Huntington's disease monkey model. Y. CHEN*; R. VILLABA; S. JENKINS; Y. SMITH; A. W. S. CHAN. *Yerkes Primate Res. Center, Emory Univ., Yerkes Primate Res. Center, Emory Univ., Yerkes Primate Res. Center, Emory Univ.*

9:00 L4 **528.02** Chronic elevation of stress hormone accelerates the onset of memory decline in Huntington's disease mice. C. MO*; T. RENOIR; A. J. HANNAN. *Florey Inst. of Neurosci. and Mental Hlth., Univ. of Melbourne.*

10:00 L5 **528.03** ● AAV-mediated expression of RNAi confers long term suppression of Htt and ameliorates disease manifestations in the YAC128 mouse model of Huntington's disease. L. M. STANEK*; P. S. SARDI; B. MASTIS; A. RICHARDS; S. H. CHENG; L. S. SHIHABUDDIN. *Genzyme Corp, Genzyme, a Sanofi Co.*

11:00 L6 **528.04** Intranasal and intraperitoneal administration of a TrkB small molecule partial agonist improves motor coordination in a transgenic mouse model of Huntington's disease. C. CHIU*; F. LIAO; G. LINARES; F. M. LONGO; D. CHUANG. *NIMH, NIH, Stanford Univ. Sch. of Med.*

8:00 L7 **528.05** Oligodendrocyte dysfunction in Huntington's disease mice. B. HUANG*; M. A. GAERTIG; X. LI; S. LI. *Emory Univ.*

9:00 L8 **528.06** Characterization of the genotypes and behavioral phenotypes of mutant-huntingtin transgenic songbirds. W. LIU*. *Rockefeller Univ.*

10:00 L9 **528.07** ● Phenotypic characterization of the Q175 HD mouse model by quantitative imaging. D. SCHOLZ; V. MACK; N. BERSON; Y. SEDAGHAT; H. VON DER KAMMER*; C. GABRYSIAK; A. REICHELT; K. KOTTIG; A. EBNETH; I. MUNOZ-SANJUAN; S. KWAK; G. YOHRLING. *Evotec AG, CHDI Fndn., CHDI Fndn., Huntington's Dis. Society of America.*

11:00 L10 **528.08** Reversal of cognitive deficits in the Hdh^{Q111} mouse model of Huntington's disease by an $\alpha5\text{-}GABA_A$ receptor inhibitor. R. C. MITCHELL; O. F. MONTEIRO*; J. WALLACE; L. ETHERINGTON; S. SCHWEIGER; J. J. LAMBERT; R. F. LANGSTON. *Univ. of Dundee, Inst. of Human Genet.*

8:00 L11 **528.09** Ganglioside GM1 ameliorates non-motor symptoms in the YAC128 model of Huntington disease. M. ALPAUGH; P. KAR; D. GALLEGUILLOS; M. HORKEY; B. KERR; S. SIPIONE*. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 L12 **528.10** Impaired thermoregulatory capacity in R6/2 and zQ175 mouse models of Huntington's disease during cold challenge. J. PUOLIVÄLI; E. HOHTOLA; O. M. KONTKANEN*; L. C. PARK; T. HEIKKINEN. *Charles River Discovery Res. Services, Univ. of Oulu, CHDI Fndn. Inc.*

10:00 L13 **528.11** Immunohistochemical characterization of R6/2 transgenic and zQ175 knock in mouse models of Huntington's disease. M. CERRADA-GIMENEZ*; L. TÄHTIVAARA; L. C. PARK; D. HOWLAND; I. MUÑOZ-SANJUAN; O. KONTKANEN; N. VARTIAINEN. *Charles River Discovery Res. Services Finland Ltd, CHDI Fndn. Inc.*

11:00 L14 **528.12** Progressive motor impairment in transgenic Huntington disease monkeys. J. BACHEVALIER; T. CHI; E. HEIDI; S. MORAN; A. W. CHAN*. *Yerkes Center/ Emory Univ.*

8:00 L15 **528.13** ● Functional imaging in awake mice: Studies on a transgenic (Q175) mouse model of Huntington's disease. C. F. FERRIS*; T. M. BARCHET; S. TODDES; P. KULKARNI; J. YEE; W. KENKEL; M. NEDELMAN. *Northeastern University, Ctr. for Translational NeuroImaging, Animal Imaging Res., Ekam Imaging.*

9:00 L16 **528.14** ● ▲ Fatty acid enriched diet confers neuroprotection in a Huntington´s disease model: Studies *in vitro and in silico.* A. MORALES*; A. SANCHEZ; D. GONZALEZ; S. MONTES; M. EL HAFIDI BENTLAKDER; E. SORIA; C. RÍOS; A. ZAMORANO; F. PÉREZ. *THE NATIONAL INSTITUTE OF NEUROLOGY AND NEUROSURGERY, Natl. Sch. of Med. and Homeopathy IPN Mexico, Natl. Inst. of Cardiol. - Ignacio Chávez, NATIONAL INSTITUTE OF NEUROLOGY AND NEUROSURGERY, Natl. Inst. of Cardiol. - Ignacio Chávez, Natl. Sch. of Med. and Homeopathy IPN.*

10:00 L17 **528.15** ● Early abnormal striatal gene expression in BACHD rats recapitulates the human disorder and reveals multiple mechanisms of gene dysregulation in Huntington disease. L. YU-TAEGER*; M. BONIN; O. RIESS; H. P. NGUYEN. *Inst. of Med. Genet. and Applied Genomics, Univ. of Tuebingen.*

11:00 L18 **528.16** HD-SELECT, a novel patient-derived cell model enabling disease-modifying drug selection for Huntington's disease. C. BISCARRAT; N. COMPAGNONE*. *ICDD, ICDD.*

8:00 M1 **528.17** ● Genetic knockdown of HDAC4, or sub-chronic treatment with a novel selective Class IIa HDAC inhibitor, reverses elevated membrane excitability in striatal medium spiny neurons from R6/2 and zQ175 Huntington's disease model mice. G. C. TOMBAUGH*; S. GELMAN; A. BRADAIA; K. WADEL; V. GARDES; C. TOULLER; A. SERS; A. GHAVAMI; B. BUISSON; G. BATES; M. MIELCAREK; C. DOMINGUEZ; M. MAILLARD; V. BEAUMONT. *Psychogenics, Inc, Neuroservice SARL, King's Col. London, CHDI Mgmt. / Fndn. Inc.*

POSTER

529. Motor Neuron Disease: Mechanisms III

Theme C: Disorders of the Nervous System

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

8:00 M2 **529.01** The expression of mutant SOD1 in astrocytes negated the noradrenaline-induced astrocyte-mediated neuroprotection. Y. YOSHIOKA*; M. AKUNE; T. YOSHIDA; A. YAMAMURO; Y. ISHIMARU; S. MAEDA. *Setsunan Univ.*

9:00 M3 **529.02** Deleting ephrin-b2 from reactive astrocytes is beneficial in ALS. L. SCHOONAERT; L. POPPE; A. VAN HOECKE; W. L. ROBBERECHT*. *Lab. of Neurobiology, Vesalius Res. Center, VIB, Exptl. Neurol. (Department of Neurosciences) and Leuven Res. Inst. for Neurosci. and Dis. (LIND), Univ. of Leuven (KU Leuven), Max-Planck-Institute of Neurobio., Univ. Hosp Gasthuisberg.*

10:00 M4 **529.03** Calpain-dependent cleavage of TDP-43 plays a crucial role in ALS pathology. T. YAMASHITA*; T. HIDEYAMA; S. TERAMOTO; J. TAKANO; N. IWATA; T. C. SAIDO; S. KWAK. *Univ. of Tokyo Grad Sch. Med., CREST, JST, Univ. of Tokyo Grad Sch. Med., RIKEN Brain Sci. Inst., Nagasaki Univ. Grad. Sch. of Biomed. Sci., Intnatl. Univ. Hlth. Welfare.*

11:00 M5 **529.04** FUS-regulated region- and cell-type-specific transcriptome is associated with cell selectivity in ALS/FTLD. Y. FUJIOKA*; S. ISHIGAKI; A. MASUDA; Y. IGUCHI; T. UDAGAWA; H. WATANABE; M. KATSUNO; K. OHNO; G. SOBUE. *Nagoya Univ., Nagoya Univ. Grad. Sch. of Med., Nagoya Univ. Grad. Sch. of Med.*

8:00 M6 **529.05** Modification of disease onset and progression for ALS by human chromogranin B variants. Y. OHTA*; D. PHANEUF; J. JULIEN. *Ctr. de recherce du CHU, Laval Univ.*

9:00 M7 **529.06** Investigation of the role carbonic anhydrase 1 plays in motor neuron function and ALS pathology. J. LIU*; X. LIU; R. P. BOWSER; R. G. MILLER; T. KADOWAKI. *Xi'An Jiao-Tong Liverpool Univ., Barrow Neurolog. Inst., Forbes Norris MDA/ALS Res. Ctr.*

10:00 M8 **529.07** Compartmentalized motoneuron cultures reveal alterations in axonal mRNAs after TDP-43 depletion. L. SAAL*; M. BRIESE; S. KNEITZ; M. SENDTNER. *Inst. for Clin. Neurobio., Dept. of Physiological Chem. I, Theodor-Boveri-Institute for Biol. Sciences, Univ. of Wuerzburg.*

11:00 M9 **529.08** Mutant SOD1 astrocytes display an accelerated aging phenotype in amyotrophic lateral sclerosis. M. DAS*; C. SVENDSEN. *Cedars Sinai Med. Ctr.*

8:00 M10 **529.09** Targeting misfolded SOD1 as a therapy for ALS. A. ISRAELSON*; D. W. CLEVELAND. *Ben Gurion Univ., Ludwig Inst. for Cancer Res.*

9:00 M11 **529.10** Evidence for a dying-forward process of ALS in the SOD1 rat. G. M. THOMSEN*; G. GOWING; P. AVALOS; J. LATTER; K. STAGGENBORG; R. PARADIS; M. CHEN; A. LIN; B. KASPAR; C. SVENDSEN. *Cedars Sinai Med. Ctr., Nationwide Children's Res. Institute, Ohio State Univ. Sch. of Med.*

10:00 M12 **529.11** TARDBP mutations associated with amyotrophic lateral sclerosis alter the efficiency of its own alternative splicing. T. KONNO; A. KOYAMA; M. KOYAMA; A. SUGAI; T. KATO; T. ISHIHARA*; M. NISHIZAWA; O. ONODERA. *Niigata Univ. Resource Br. For Brain Dis.*

11:00 M13 **529.12** Alternative splicing or polyadenylation, which is the major mechanism for auto-regulation of TDP-43? A. SUGAI; A. KOYAMA; T. KATO; T. KONNO; T. ISHIHARA; M. NISHIZAWA; O. ONODERA*. *Brain Res. Institute, Niig.*

8:00 M14 **529.13** A stem cell model of the motor circuit reveals distinct requirements of SMN for motor neuron survival and function. C. M. SIMON*; A. JANAS; F. LOTTI; L. PELLIZZONI; G. MENTIS. *Motor Neuron Ctr.*

9:00 M15 **529.14** Astrocytes harboring Amyotrophic Lateral Sclerosis-causative mutations alter ABC drug efflux transporters at the endothelial cell layer. M. R. JABLONSKI*; D. A. JACOB; P. PASINELLI; D. TROTTI. *Thomas Jefferson Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 M16 **529.15** SMA skeletal muscles in primary cell culture have normal morphology, survival, growth, and response to DNA damage. S. FAYZULLINA*; L. J. MARTIN. *Johns Hopkins Sch. of Med.*

11:00 M17 **529.16** Non-cell autonomous mechanisms induce hyperexcitability of motor neurons in a mouse model of spinal muscular atrophy. E. FLETCHER*; G. Z. MENTIS. *Columbia Univ.*

8:00 M18 **529.17** Dysregulation of atypical PKC and Ryk in a mouse model of amyotrophic lateral sclerosis. A. TURY*; K. TOLENTINO; A. FENSTERMAKER; R. MCRAE; Y. ZOU. *UCSD.*

9:00 N1 **529.18** Reduction of U11/U12 small nuclear ribonucleoprotein in amyotrophic lateral sclerosis. T. ISHIHARA; T. KATO; A. SHIGA; A. YOKOSEKI*; A. KAKITA; M. NISHIZAWA; H. TAKAHASHI; O. ONODERA. *Niigata Univ.*

10:00 N2 **529.19** Plasma biomarker panels predict prognosis in amyotrophic lateral sclerosis. X. W. SU*; Z. SIMMONS; R. M. MITCHELL; H. E. STEPHENS; J. R. CONNOR. *Penn State Col. of Med., Penn State Col. of Med.*

11:00 N3 **529.20** Thr175 phosphorylation regulates GSK3β activity and tau fibril formation *in vitro.* A. MOSZCZYNSKI; M. GOHAR; K. VOLKENING; M. J. STRONG*. *Robarts Res. Inst., London Hlth. Sci. Ctr. - UH.*

8:00 N4 **529.21** Plastin acts a genetic modifier of neurodegenerative diseases. M. WALSH*; E. WINGROVE; A. HART. *Brown Univ.*

9:00 N5 **529.22** Protein expression with implications for selective vulnerability in motor neuron disorders. L. H. COMLEY*; I. ALLODI; S. NICHTERWITZ; A. BERGSTRAND; E. HEDLUND. *Karolinska Institutet.*

10:00 N6 **529.23** A protein signature of human motor neuron resistance in Amyotrophic Lateral Sclerosis. S. NICHTERWITZ*; L. H. COMLEY; I. ALLODI; A. BERGSTRAND; E. HEDLUND. *Karolinska Institutet.*

11:00 N7 **529.24** Neuromuscular alterations following unilateral isometric strength training in SOD1-G93A rats. K. G. STANFORD; J. D. ODUM; A. D. RORIE; R. S. ROGERS; J. L. WHEATLEY; P. C. GEIGER; H. NISHIMUNE; J. A. STANFORD*. *Univ. Kansas Med. Ctr., Univ. Kansas Med. Ctr.*

8:00 N8 **529.25** Sensory abnormalities in amyotrophic lateral sclerosis: Anatomical and functional evidence in humans. C. IGLESIAS*; M. EL MENDILI; S. SANGARI; R. MORIZOT-KOUTLIDIS; H. BENALI; P. PRADAT; V. MARCHAND-PAUVERT. *Lab. d'Imagerie Fonctionnelle, Inserm U678-Upmc, IHU-A-ICM, Pitie-Salpetriere, Univ. Paris 11, IFR imagerie neurofonctionnelle, DSV/I2BM Neurospin, ER6 UPMC, Pole Maladies du Systeme Nerveux, Hop. Pitie-Salpetriere.*

9:00 N9 **529.26** Calcitonin gene-related peptide signaling influences motor symptom onset and disease progression in the superoxide dismutase 1 (G93A) mouse model of amyotrophic lateral sclerosis. C. RINGER*; K. TSUJIKAWA; E. WEIHE; B. SCHÜTZ. *Philipps-Universität Marburg, Osaka Univ.*

10:00 N10 **529.27** Endothelin-1 is over-expressed in ALS and induces degeneration of cultured motor neurons. E. RANNO; S. D'ANTONI; A. BERRETTA; F. LAUREANTI; M. SPATUZZA; R. PELLITTERI; P. LONGONE; A. M. IYER; E. ARONICA; M. CATANIA*. *Inst. of Neurolog. Sciences, Natl. Res. Council (CNR), PhD program in Neurobiology, Univ. of Catania, Physiol. Section, Dept. of Bio-Medical Sciences, Univ. of Catania, Mol. Neurobio. Unit, Exptl. Neurology, Fondazione Santa Lucia, Dept. of (Neuro) Pathology, Academic Med. Ctr., Swammerdam Inst. for Life Sciences, Ctr. for Neuroscience, Univ. of Amsterdam, IRCCS Oasi Maria SS.*

11:00 N11 **529.28** Chronic infusion of 4-aminopyridine in the spinal cord *in vivo* induces motor alterations but no neurodegeneration. R. LAZO-GÓMEZ; R. TAPIA*. *Univ. Nacional Autonoma De Mexico.*

8:00 N12 **529.29** Different proteins aggregation and genes expression in mutated als patients. C. CEREDA*; P. MILANI; S. GAGLIARDI; O. PANSARASA; L. DIAMANTI; F. POLVERACCIO; S. LA SALVIA; L. DRUFUCA; M. CERONI. *IRCCS Natl. Neurolog. Inst. C. Mondino, Univ. of Pavia.*

9:00 N13 **529.30** Regulation of the cytoskeleton in spinal muscular atrophy (sma). N. HENSEL; B. FÖRTHMANN; H. BRINKMANN; P. CLAUS*. *Hannover Med. School, Neuroanatomy.*

POSTER

530. Neuromuscular Diseases

Theme C: Disorders of the Nervous System

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

8:00 N14 **530.01** Reduced protein translation rates in a *Drosophila* model for GARS-associated CMT peripheral neuropathy. E. STORKEBAUM*; S. NIEHUES; J. BUSSMANN; G. STEFFES; I. ERDMANN; S. KOERDT; M. LYSAJA; D. DIETERICH. *Max Planck Inst. For Mol. Biomedicine, Leibniz Inst. for Neurobio., Otto-von-Gluericke-University Magdeburg.*

9:00 N15 **530.02** Novel mechanistic insight into the pathology of hereditary motor and sensory neuropathy. G. BAI*; W. HE; H. LIU; H. ZHOU; N. WHITE; V. I. SHUBAYEV; R. W. BURGESS; X. YANG; S. L. PFAFF. *Salk Inst., The Scripps Res. Inst., The Univ. of California, San Diego, The Jackson Lab.*

10:00 N16 **530.03** Modeling the early phenotype at the neuromuscular junction of spinal muscular atrophy using patient-derived iPSCs. M. YOSHIDA*; S. KITAOKA; N. EGAWA; M. YAMANE; K. TSUKITA; T. NAKAHATA; H. INOUE; M. SAITO. *Ctr. For Ips Cell Res. and Application.*

11:00 N17 **530.04** Function of ZPR1 in neurodegeneration and pathogenesis of SMA. L. D. GANGWANI*; N. GENABAI; S. AHMAD. *Texas Tech. Univ. Hlth. Sci. Ctr., Georgia Regents Univ.*

8:00 N18 **530.05** Mouse muscleblind-like compound knockout models of myotonic dystrophy. K. LEE*; M. LI; M. MANCHANDA; D. FINN; A. KUMAR; T. FOSTER; M. SWANSON. *Univ. of Florida, Univ. of Florida, Chang Gung Mem. Hosp., Univ. of Florida.*

9:00 O1 **530.06** Longitudinal neuromuscular responses in mdx mice challenged with or without addition of forced exercise. A. E. KUDWA*; Y. JIMENEZ; D. GOMEZ; A. SANCHEZ; R. STEVENSON; B. ALOSIO; R. MUSHLIN; K. CIRILLO; S. RAMBOZ. *Psychogenics Inc.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 O2 **530.07** ● Inhibitor of hematopoietic prostaglandin D synthase improves the muscle disorder in an experimental model of Duchenne muscular dystrophy. K. TANAKA; K. ARITAKE; K. MIYOSHI; Y. HAYASHI*; E. SASAKI; Y. URADE. *Taiho Pharmaceut. Co., Ltd., Osaka Biosci. Inst.*

11:00 O3 **530.08** The effects of Ursodeoxycholic Acid (UDCA) on the function of isolated mdx gastrocnemius and costal diaphragm preparations. C. CARLSON*; D. LUO; H. YU; R. POTTER. *Midwestern Univ. Glendale, Midwestern Univ. Glendale.*

8:00 O4 **530.09** Autofluorescence optical imaging of the responses to intracortical stimulation in normal mouse models of myotonic dystrophy. G. CHEN*; S. W. CRAMER; L. P. W. RANUM; M. S. SWANSON; T. J. EBNER. *Univ. of Minnesota, Univ. of Florida.*

9:00 O5 **530.10** Neuropsychological assessment of dystrophin isoform induced progression of cognitive impairment in DMD/BMD patients in North West Indian Population. R. TYAGI*; S. PRABHAKAR; A. ANAND. *Dept. of Neurology, Post Grad. Inst. of Med. Educ. and Resear.*

10:00 O6 **530.11** Changes in miRNA expression levels over disease course in a mouse model of ALS. A. COURTRIGHT*; S. VILLA; K. BURGOS; R. METPALLY; S. NASSAR; B. RAKELA; K. VAN KEUREN-JENSEN. *T-Gen.*

11:00 O7 **530.12** Dysregulation of Rac or Rho induces death of motor neurons and activation of these GTPases is altered in the G93A mutant SOD1 mouse model of ALS. T. R. STANKIEWICZ*; R. J. BOUCHARD; D. A. LINSEMAN. *Univ. of Denver, VA Med. Ctr. Denver.*

8:00 O8 **530.13** ▲ Detailed examination of microvesicle protein and whole transcriptome RNA content, including non-coding RNAs (miRNA, lncRNA), from IPS cell lines derived from patients with Amyotrophic Lateral Sclerosis and healthy controls. L. GHAFFARI*; B. HJELM; A. JAVAHERIAN; M. BURKHARDT; C. RAMOS; B. RAKELA; A. COURTRIGHT; M. ROSENOW; K. PETRITIS; W. TEMBE; R. METPALLY; K. VAN-KEUREN JENSEN. *Tgen, iPierian, Inc.*

9:00 O9 **530.14** ▲ Targeting a novel gene in amyotrophic lateral sclerosis. B. TERZIC*; B. RAKELA; S. VILLA; R. BOWSER; T. BEACH; A. COURTRIGHT; R. METPALLY; K. VAN-KEUREN JENSEN. *Translational Genomics Res. Inst. (tgen), Barrow Neurolog. Institute, St. Joseph's Hosp., Banner Sun Hlth. Res. Inst.*

10:00 O10 **530.15** Innervation-sensitive FGF-22 and FGFBP1 are necessary to maintain neuromuscular connections. M. J. TENGA*; H. UMEMORI; G. VALDEZ. *Virginia Tech. Carilion Res. Inst., Univ. of Michigan Med. Sch., Virginia Tech.*

11:00 O11 **530.16** ▲ Role of sensory neurons in the initiation and progression of Amyotrophic Lateral Sclerosis. S. VAUGHAN*; M. TENGA; Z. KEMP; G. VALDEZ. *Virginia Tech. Carilion Res. Inst.*

8:00 O12 **530.17** Oligodendroglia significantly contribute to neuronal injury in ALS. Y. LI*; D. BERGLES; J. D. ROTHSTEIN. *The Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Brain Sci. Institute, Johns Hopkins Univ. Sch. of Med.*

9:00 P1 **530.18** Specific motor-unit changes in perisynaptic schwann cell at nmjs of symptomatic SOD1^{g37r} mice. D. ARBOUR*; E. TREMBLAY; E. MARTINEAU; R. ROBITAILLE. *Univ. De Montréal, Univ. de Montréal.*

10:00 P2 **530.19** ● Clinical and genetic characterization of a cohort of 30 Chilean patients with dysferlinopathy. P. A. CAVIEDES*; C. CASTIGLIONI; G. A. DI CAPUA; L. WOUDT; J. DÍAZ; M. CAMPERO; R. HUGHES; P. GONZÁLEZ-HORMAZÁBAL; R. GODOY-HERRERA; N. LEVY; M. KRAHN; L. JARA; J. A. BEVILACQUA. *ICBM Fac Medicine, Univ. of Chile, Clínica Las Condes, ICBM Fac Medicine, Univ. of Chile, Hosp. Clínico Univ. de Chile, Hosp. Clínico Univ. de Chile, Faculté de Médecine de Marseille, Hôpital d'enfants de la Timone, ICBM, Fac. of Medicine, Univ. of Chile.*

11:00 P3 **530.20** Immunization of mice with muscle specific tyrosine kinase leads to motor nerve alterations. V. PATEL*; A. OH; L. G. SULTATOS; B. A. WILSON; M. HO; J. J. MCARDLE. *UMDNJ, Rutgers New Jersey Med. Sch., UIUC.*

8:00 P4 **530.21** Investigation of semaphorin3a as a regulator of motor axon reinnervation at the neuromuscular junction. J. SHADRACH*; B. PIERCHALA. *Univ. of Michigan.*

9:00 P5 **530.22** Responses to VPLo thalamus stimulation in primary motor cortex. F. AGNESI*; A. T. CONNOLLY; J. XIAO; M. D. JOHNSON. *Univ. of Minnesota, Inst. for Translational Neuroscience, university of Minnesota.*

10:00 P6 **530.23** Cis-regulatory elements of POLG1 expression with putative tissue-specificity. J. P. NIKKANEN*; J. PARTANEN; A. WARTIOVAARA. *Univ. of Helsinki.*

POSTER

531. Neural Mechanisms Associated with Autistic Behaviors in Animals

Theme C: Disorders of the Nervous System

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

8:00 P7 **531.01** Transient up-regulation of Pax6 increases glutamatergic neuronal differentiation in prefrontal cortex of an animal model of autism. K. KIM*; C. CHOI; J. KIM; M. SONG; J. CHEONG; C. SHIN. *Col. of Pharmacy, Seoul Natl. Univ., Konkuk university, Konkuk Univ., Gwangju Inst. of Sci. and Technol., Sahmyook Univ., Konkuk Univ.*

9:00 P8 **531.02** Reduced axonal localization of a Caps2 splice variant impairs axonal release of BDNF and causes autistic-like behavior in mice. T. SADAKATA*. *Gunma Univ.*

10:00 P9 **531.03** Altered neuroplasticity of the amygdala in valproate-induced rat autism model. H. LIN*; Y. CHAN; P. CHEN. *Dept. and Inst. of Physiology, Natl. Yang-Ming Univ., Natl. Yang-Ming Univ., Dept. of Pharmacology, Col. of Medicine, Natl. Cheng Kung Univ., Dept. of Psychiatry, Addiction Res. Center, Hosp. and Col. of Medicine, Natl. Cheng Kung Univ.*

11:00 P10 **531.04** Mechanotransduction of hippocampal neurons: Role of ubiquitin ligase E3a (Ube3a) in neurite contact guidance. I. TONAZZINI*; G. M. VAN WOERDEN; S. MEUCCI; Y. ELGERSMA; F. BELTRAM; M. CECCHINI. *NEST, Scuola Normale Superiore and Inst. Nanoscience CNR, Erasmus Med. Ctr.*

8:00 P11 **531.05** Gastrointestinal dysfunction mediated by GABAA receptors in the Neuroligin-3R451C mouse model of autism. E. HILL-YARDIN*; M. ELLIS; N. OEZGUEN; T. SAVIDGE; J. C. BORNSTEIN. *Univ. of Melbourne, Baylor Col. of Med.*

9:00 P12 **531.06** The Role of MAPK/ERK signaling in ASD pathogenesis associated with copy number variation in 16p11.2 deletion mice. J. PUCILOWSKA*; J. VITHAYATHIL; G. E. LANDRETH. *Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 P13 **531.07** Reduced GABAergic interneurons density and functional alterations in the visual cortex of Engrailed-2 knockout mice, a murine model for autism. M. ALLEGRA*; S. GENOVESI; P. SGADÒ; M. CENNI; Y. BOZZI; M. CALEO. *Inst. Di Neuroscienze CNR, Scuola Normale Superiore, Ctr. for Integrative Biol. (CIBIO).*

11:00 P14 **531.08** Increased cell proliferation and reduced neural differentiation in the developing hippocampus following postnatal exposure to sodium valproate. C. CHENG; W. WANG; C. YANG; S. TZENG*. *Natl. Cheng Kung Univ., Natl. Hlth. Res. Institutes,, Natl. Cheng Kung Univ.*

8:00 P15 **531.09** Serum antibody changed in MAOA deficiency autism spectrum disorder mice. K. CHEN*; J. C. SHIH; C. CHEN; F. SUTANDY. *Univ. South Calif, USC, Natl. Central Univ.*

9:00 P16 **531.10** Mice lacking MMP-9 show stereotypic behaviors, but no social impairment. K. Z. MEYZA*; A. PUSCIAN; T. LEBITKO; E. KNAPSKA. *Nencki Inst. of Exptl. Biol.*

10:00 P17 **531.11** Transcriptome profiling in Engrailed2 knockout mice reveals convergent molecular pathology associated with ASD. P. SGADÒ*; G. PROVENZANO; V. ADAMI; E. DASSI; G. ZUNINO; S. GENOVESI; S. CASAROSA; Y. BOZZI. *Ctr. For Integrative Biol. - Univ. of Trento, CNR Neurosci. Insitute.*

11:00 P18 **531.12** Altered synaptic plasticity and abnormal behaviors in Shank3 exon 4-9 mutant mouse model of autism. T. C. JARAMILLO*; H. E. SPEED; J. REIMERS; Z. XUAN; S. LIU; C. M. POWELL. *UT Southwestern Med. Ctr.*

8:00 Q1 **531.13** Changes in molecular motors in doublecortin deficient mice. X. FU*; K. J. BROWN; J. K. JAISWAL; J. S. LIU. *Children's Natl. Med. Ctr.*

9:00 Q2 **531.14** Cerebellar pathology results in compensatory neural adaptations within cerebellar-prefrontal cortex pathways involved in modulating cortical dopamine release: Relevance to Autism-related behavioral disorders. E. MCKIMM; B. CORKILL; D. HECK; D. GOLDOWITZ; G. MITTLEMAN; C. D. BLAHA*. *Univ. of Memphis, Univ. Tennessee Hlth. Sci. Ctr., Univ. of British Columbia.*

10:00 Q3 **531.15** Elevated urinary p-cresol in autism spectrum disorder: Human, rodent and cellular studies. S. GABRIELE*; R. SACCO; S. CERULLO; C. NERI; A. URBANI; T. PASCUCCI; C. BRAVACCIO; M. RICCIO; L. DE MAGISTRIS; C. BARTHELEMY; F. BONNET-BRIHAULT; G. TRIPI; R. PIACENTINI; C. GRASSI; A. M. PERSICO. *Univ. Campus Biomedico, IRCCS Fondazione Santa Lucia, Univ. "Tor Vergata", Univ. "Sapienza", Univ. "Federico II", Second Univ. of Naples, Second Univ. of Naples, Univ. François Rabelais, Hôpital Bretonneau, Univ. of Palermo, Catholic Univ. S.H., Mafalda Luce Ctr. for Pervasive Developmental Disorders.*

11:00 Q4 **531.16** ▲ *In vitro* voltage sensitive dye imaging study of a role of NMDA on amygdalar-striatal functional connectivity. D. BOHORQUEZ*; R. WHITE; K. ZHU; G. CARLSON. *Univ. of Pennsylvanina Perelman Sch. of Med.*

8:00 Q5 **531.17** ● Social behaviors can be assessed with computer vision in mouse models of disease in a home cage environment. T. HANANIA*; P. KABITZKE; M. MAZELLA; I. FILIPOV; V. ALEXANDROV; D. BRUNNER. *PsychoGenics Inc.*

9:00 Q6 **531.18** Emotional pertubations in an environmentally induced animal model of autism. A. BANERJEE*; J. A. LUONG; S. K. LELLA; B. L. SAULS; C. ENGINEER; M. P. KILGARD; J. E. PLOSKI. *Univ. of Texas Dallas.*

10:00 Q7 **531.19** Altered learning and novelty-seeking behavior in adult mice lacking the neuropilin 2 gene. M. W. SHIFLETT*; M. GAVIN; T. S. TRAN. *Rutgers Univ. Newark, Rutgers Univ.*

11:00 Q8 **531.20** Visual preference for images of humans in non-human primates; relevance to primate models of autism. D. DZIOBEK; S. ZHANG; J. ASHE; X. LU*. *Univ. of Minnesota, Univ. of Minnesota, VA Med. Center, Minneapolis.*

POSTER

532. Rett's, Fragile X, and Angelman's Disorders

Theme C: Disorders of the Nervous System

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

8:00 Q9 **532.01** Reexpression of Mecp2 in GABAergic neurons is sufficient to rescue the effects of global Mecp2 deletion. K. M. URE*; H. LU; E. SZTAINBERG; H. ZOGHBI. *Baylor Col. of Med.*

9:00 Q10 **532.02** Rett Syndrome like phenotypes in the R255X Mecp2 mutant mouse are rescued by MECP2 transgene. M. R. PITCHER*; A. FISHER; N. C. SCHANEN; J. L. NEUL. *Baylor Col. of Med., Jan and Dan Duncan Neurolog. Res. Inst., Nemours Biomed. Res. Dept.*

10:00 Q11 **532.03** A comparison of cortical and cerebellar gene dysregulation in three MeCP2 mutant mouse models. G. M. JENTARRA*; B. CHAVIRA. *Midwestern Univ.*

11:00 Q12 **532.04** Circuitry-dependent and independent phenotypes of MeCP2 deficient human neurons derived from ESCs and Rett Syndrome specific iPSCs. X. CHEN*; X. HAN; B. BLANCHI; W. GUAN; L. CHENG; X. ZHANG; Y. YU; Y. E. SUN. *UCLA, Tongji Univ., Inst. of Brain Sci. and State Key Lab. of Med. Neurobio., UCLA, Tongji Hosp.*

8:00 Q13 **532.05** Genetically engineered human pluripotent stem cell model of Rett Syndrome. Y. LI*; R. JAENISCH. *Whitehead Institute, MIT.*

9:00 Q14 **532.06** *In vivo* testing of a self-complementary AAV9 construct expressing a codon-optimized Mecp2 transgene in a preclinical model of Rett Syndrome. V. MATAGNE*; L. VILLARD; J. ROUX. *INSERM UMR_S910 - Aix-Marseille Univ.*

10:00 Q15 **532.07** Interneuron-specific mecp2 reactivation rescues rett syndrome phenotypes. ; W. WU; X. LI. *Inst. of Neuroscience, Zhejiang Univ., The children's hospital, Zhejiang Univ. Sch. of Med., Inst. of Zhejiang Univ.*

11:00 Q16 **532.08** VEGF inhibition as a potential treatment for FXS neocortical vasculature abnormalities. A. BELAGODU*; R. GALVEZ. *Univ. of Illinois Urbana-Champaign.*

8:00 Q17 **532.09** Electrophysiological characterization of iPSC-derived neurons from Angelman syndrome and Dup15q autism patients. J. J. FINK*; K. A. BOLDUC; T. M. ROBINSON; E. S. LEVINE. *Univ. of Connecticut Hlth. Ctr.*

9:00 Q18 **532.10** Genetic studies to gain insight into the function of the MeCP2 domains *in vivo*. L. HECKMAN*; H. Y. ZOGHBI. *Jan and Dan Duncan Neurolog. Res. Inst., Baylor Col. of Med., Howard Hughes Med. Inst.*

10:00 R1 **532.11** Characterization of cortical neuron defects in Fragile X mice. A. AHARON*; Y. ZUO. *Univ. of California Santa Cruz.*

11:00 R2 **532.12** Mecp2-null mice displayed possible endogenous compensatory mechanisms in defective neurotransmitter systems. M. F. OGINSKY*; W. ZHONG; C. M. JOHNSON; N. CUI; C. JIANG. *Georgia State Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 R3 **532.13** ▲ Neocortical developmental vasculature abnormalities in a mouse model of fragile X syndrome. S. A. FLEMING; R. GALVEZ*. *Univ. of Illinois, Urbana-Champaign.*

9:00 R4 **532.14** Roles of MeCP2 in the autonomic nervous system. T. HUANG*; J. L. NEUL. *Program in Developmental Biology, Baylor Col. of Med., Baylor Col. of Med.*

10:00 R5 **532.15** Palmitoylation-dependent cdkl5-psd95 interaction regulates synaptic targeting of cdkl5 and synaptic transmission. Z. XIONG*; Y. ZHU; D. LI. *Inst. Neurosci.*

11:00 R6 **532.16** Single-molecule imaging of PSD-95 mRNA translation in dendrites reveals its dysregulation in a mouse model of fragile X syndrome. M. F. IFRIM*; G. J. BASSELL. *Emory Univ.*

8:00 R7 **532.17** Altered somatosensory barrel cortex refinement in the developing brain of Mecp2-null mice. M. MOROTO*; A. NISHIMURA; M. MORIMOTO; K. ISODA; T. MORITA; M. YOSHIDA; S. MORIOKA; T. TOZAWA; T. HASEGAWA; T. CHIYONOBU; K. YOSHIMOTO; H. HOSOI. *Kyoto Prefectural Univ. of Med., Kyoto Prefectural Univ. of Med.*

9:00 R8 **532.18** Cortical thickness development associated with fragile X syndrome from childhood to early adulthood. E. QUINTIN*; J. L. BRUNO; M. M. RAMAN; B. JO; S. HALL; A. LIGHTBODY; A. L. REISS. *Stanford Univ.*

10:00 R9 **532.19** Diurnal increase of apnea and reduced GAD1 mRNA expression in respiratory nuclei in Mecp2-deficient mice. M. NISHIYAMA*; M. ASANO; S. IWASA; A. SUZUKI; T. WADA; H. TAKIGUCHI; T. SHIRAKAWA. *Dept. of Pediatric Dentistry, Nihon Univ. Sch. of Dent., Dept. of Pathology, Nihon Univ. Sch. of Dent.*

11:00 R10 **532.20** Rett Syndrome-related genes share common pathogenic pathways. N. MORELLO; R. PIZZO; E. CALCAGNO; E. AMENDOLA; C. GROSS; M. SASSOÈ-POGNETTO; M. GIUSTETTO*. *Univ. of Torino, European Mol. Biol. Lab. (EMBL).*

8:00 S1 **532.21** Development of cortical activity in a rat model of Fragile X Syndrome *in vivo.* J. BERZHANSKAYA*; A. S. GORIN; M. A. PHILLIPS; M. T. COLONNESE. *George Washington Univ., George Washington Univ.*

9:00 S2 **532.22** Selective disruption of mGluR5-Homer interactions mimics multiple phenotypes of Fragile X Syndrome in mice. K. A. COLLINS*; W. GUO; S. A. HAYS; G. MOLINERO; R. PAYLOR; P. F. WORLEY; K. M. HUBER. *UT Southwestern Med. Ctr. At Dallas, INM Neuromed, Baylor Col. of Med., John Hopkins Univ. Sch. of Med.*

10:00 S3 **532.23** Cellular mechanisms of dopaminergic dysfunction in Angelman syndrome model mice. J. BERRIOS*; B. D. PHILPOT. *Univ. of North Carolina At Chapel Hill, Univ. of North Carolina At Chapel Hill.*

11:00 S4 **532.24** Novel microRNA-mediated mechanisms regulate brain growth factor expression in Rett Syndrome - Implications for therapeutics. N. MELLIOS*; S. D. SHERIDAN; S. KWOK; D. FELDMAN; B. CRAWFORD; J. WOODSON; S. HAGGARTY; M. SUR. *MIT/ Picower Inst. For Learning and Memory, Harvard Med. School, MGH.*

8:00 S5 **532.25** Molecular regulation of neuronal size in MeCP2 A140V mutant mice. S. RANGASAMY*; S. OLFERS; V. NARAYANAN. *Barrow Neurolog. Inst.*

9:00 S6 **532.26** Functional analysis of MeCP2, the Rett syndrome responsible factor, in neural stem cells. H. NAKASHIMA*; K. TSUJIMURA; I. KOICHIRO; K. NAKASHIMA. *Grad. Sch. of Med. Science, Kyushu Univ.*

POSTER

533. Dyslexia, Speech, and Motor Developmental Disorders

Theme C: Disorders of the Nervous System

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

8:00 S7 **533.01** Stimulus reconstruction using EEG reveals impaired low frequency speech envelope encoding (< 8Hz) in developmental dyslexia. A. J. POWER*; U. GOSWAMI. *Ctr. For Neurosci. In Educ.*

9:00 S8 **533.02** Development of white matter in children with developmental dyslexia. I. KRAFT*; M. A. SKEIDE; J. BRAUER; A. ANWANDER; A. D. FRIEDERICI. *Max Planck Inst. For Human Cognitive and Brain Sci.*

10:00 S9 **533.03** Language deficits in autism and assessment of the Cntnap2 mouse. A. RENDALL*; D. T. TRUONG; B. C. CASTELLUCCIO; I. M. EIGSTI; R. H. FITCH. *Univ. of Connecticut.*

11:00 S10 **533.04** Auditory processing and memory impairment in mice with a genetic knockout of Dcdc2, the rodent homolog of a candidate dyslexia risk gene. D. T. TRUONG*; A. CHE; A. R. RENDALL; C. E. SZALKOWSKI; J. J. LOTURCO; R. H. FITCH. *Univ. of Connecticut, Univ. of Connecticut, Univ. of Buffalo Sch. of Med.*

8:00 S11 **533.05** Speech sound processing deficits and training-induced neural plasticity in rats with dyslexia gene knockdown. T. M. CENTANNI*; A. B. BOOKER; F. CHEN; C. T. ENGINEER; A. M. SLOAN; K. TRULL; N. WASKO; R. L. RENNAKER; J. J. LOTURCO; M. P. KILGARD. *Univ. of Texas At Dallas, The Univ. of Connecticut.*

9:00 S12 **533.06** Rehabilitation of children with visospatial dysgraphia using a pattern recognition system. V. REYES*; J. M. CASTRO-MANZANO; J. LOPEZ-MARTINEZ; K. CRUZ-SÁNCHEZ; M. E. FLORES-SOSA. *Psychology/ Upaep, UPAEP, UPAEP, Ctr. Tlaxcala de Biología de la Conducta, UPAEP.*

10:00 S13 **533.07** Induced neocortical neuronal migration disorder affects cell number in the ventral cochlear nucleus. G. C. JOHNSON; W. T. ADLER; M. P. PLATT; K. A. WRIGHT; G. D. ROSEN*; A. M. GALABURDA. *Beth Israel Deaconess Med. Ctr.*

11:00 S14 **533.08** Physiological but not anatomical abnormalities in the auditory thalamus of ectopic BXSB/MpJ-Yaa mice. J. MATTLEY*; L. A. ANDERSON; J. F. LINDEN. *UCL Ear Inst., UCL.*

8:00 S15 **533.09** Differential contributions of Foxp2 to motor-skill learning. C. A. FRENCH*; C. FELICIANO; M. CORREIA; V. B. PAIXÃO; X. JIN; S. E. FISHER; R. M. COSTA. *Champalimaud Ctr. For the Unknown, The Salk Inst. for Biol. Studies, Max Planck Inst. for Psycholinguistics.*

9:00 S16 **533.10** Altered default mode network connectivity in neurofibromatosis-1. M. SCHREINER*; K. H. KARLSGODT; N. ENRIQUE; T. ROSSER; A. SILVA; C. E. BEARDEN. *UCLA, UCLA, The Feinstein Inst. for Med. Res., Children's Hosp. Los Angeles.*

10:00 S17 **533.11** Speech-related brain activity in stuttering and cluttering: Common dysfunction in the motor network. E. L. CONNALLY*; D. WARD; C. PLIATSIKAS; K. E. WATKINS. *Univ. of Oxford, Univ. of Reading, Univ. of Reading.*

11:00 S18 **533.12** GABAergic neuron-specific gene expression profiling in models of Rett Syndrome. H. CHAO*; P. YU; M. HEIMAN; S. GONG; N. HEINTZ; J. L. NEUL; C. ROSENMUND; H. Y. ZOGHBI; C. A. SHAW. *Texas Childrens Hosp., Baylor Col. of Med., MIT, The Rockefeller Univ., Charite Universitaetsmedizin.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 T1 **533.13** Maternal immune activation impairs the maternal-fetal leukemia inhibitory factor signal relay and reduces neural stem/progenitor cell proliferation. T. TSUKADA*; E. SIMAMURA; H. SHIMADA; T. AKAI; H. IIZUKA; T. HATTA. *Kanazawa Med. Univ., Kanazawa Med. Univ., Kanazawa Med. Univ.*

9:00 T2 **533.14** ▲ Cerebrolysin recovers behavioral and physiological impairments in an environmental rat model of autism. A. ZWIERZCHOWSKI-ZARATE*; S. ROYCHOWDHURY; A. BANERJEE; I. OGOBUIRO; G. FLORES; M. ATZORI. *Univ. of Texas At Dallas, Eunice Shriver Kennedy NICHD, Benemerita Univ. Autonoma de Puebla, Univ. Autonoma de San Luis Potosi.*

10:00 T3 **533.15** Study of new candidate genes that may have critical role for autism and also schizophrenia. K. KOIZUMI*; M. ITO; K. NAKAO; H. NAKAJIMA. *Kanazawa Univ., Saitama Med. Univ., Kumamoto Univ.*

11:00 T4 **533.16** A new rodent model of cerebral palsy based on prenatal ischemia and abnormal experience. M. DELCOUR; V. S. MASSICOTTE; M. RUSSIER; M. AMIN; O. BAUD; M. F. BARBE*; J. COQ. *Aix-Marseille Univ., Temple Univ., Aix-Marseille Univ., Univ. Paris-Diderot, Temple Univ. Sch. of Med.*

8:00 T5 **533.17** Disruption of protein homeostasis by autophagy deficiency leads to aggregation of disease-associated proteins and abnormal psychiatric behaviours. K. K. HUI*; A. WATANABE; H. MATSUKAWA; P. NILSSON; T. C. SAIDO; S. ITOHARA; T. YOSHIKAWA; M. TANAKA. *RIKEN Brain Sci. Inst., RIKEN Brain Sci. Inst., RIKEN Brain Sci. Inst., RIKEN Brain Sci. Inst.*

9:00 T6 **533.18** A mouse model for too much TV: Unraveling the mechanisms and developmental differences in the response to sensory overstimulation. J. S. B. RAMIREZ; D. A. CHRISTAKIS; R. D. HODGE; R. F. HEVNER; S. RAVINDER*; T. K. M. RAMIREZ; A. F. SMITH; M. F. BURGOS; J. M. RAMIREZ. *Seattle Children's Res. Inst., Univ. Of Washington, Seattle Children's Res. Inst., Ctr. For Integrative Brain Res.*

10:00 T7 **533.19** Different subcellular distributions of AMPA and NMDA receptor subunits in two rat models of cognitive dysfunctions. A. K. LEE; K. S. DERVOLA; V. JENSEN; B. A. ROBERG; M. J. NIELSEN; P. STRØMME; Ø. C. HVALBY; S. WALAAS*. *Univ. of Oslo, Univ. of Oslo, Oslo Univ. Hosp.*

11:00 T8 **533.20** Behavioral impact of *in utero* exposure to valproic acid in adult female mice. R. F. MARTIN; B. K. KRUEGER; E. M. POWELL*. *Univ. Maryland, Baltimore, Univ. Maryland, Baltimore.*

8:00 T9 **533.21** The guinea pig as a translational model for lifespan behavioral development. G. A. KLEVEN*; D. LUCAS; J. S. BREWER. *Wright State Univ.*

9:00 T10 **533.22** Adolescent olanzapine treatment alters behavior and cortical and subcortical reorganization in adult rats. S. RAZA*; A. MUHAMMAD; R. MYCHASIUK; D. O. FROST; B. KOLB. *Univ. of Lethbridge, Univ. of Maryland Sch. of Med.*

10:00 T11 **533.23** Folate deficiency: Elucidating the role of an epigenetic risk factor in developmental disorders in mice. L. SCHAEVITZ*; L. PAUL; J. SELHUB; J. E. BERGER-SWEENEY. *Tufts Univ., Tufts Univ.*

11:00 T12 **533.24** Fluoxetine administered to juvenile monkeys upregulates the serotonin transporter and alters behavior into early adulthood. S. SHRESTHA*. *NIH, Karolinska Institutet.*

POSTER

534. Epilepsy: Drug Treatment

Theme C: Disorders of the Nervous System

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

8:00 T13 **534.01** BUM5, a lipophilic prodrug of bumetanide but not bumetanide itself enhances the anticonvulsant effect of the GABAmimetic drug phenobarbital in epileptic mice. C. BRANDT*; K. TÖLLNER; F. TWELE; G. BRUNHOFER; T. ERKER; M. GABRIEL; W. LÖSCHER. *Univ. of Vet. Medicine/ Dept. of Pharmacol., Ctr. for Systems Neurosci., Univ. of Vet. Med., Univ. of Vienna.*

9:00 T14 **534.02** Bexarotene decreases hyperexcitability in two mouse models with epilepsy. V. C. BOMBEN*; J. K. HOLTH; P. E. CRAMER; G. E. LANDRETH; J. L. NOEBELS. *Baylor Col. of Med., Case Western Reserve Univ.*

10:00 T15 **534.03** ● The phytocannabinoid cannabidivarin demonstrates notable antiepileptic properties and is a genuine candidate for the treatment of temporal lobe epilepsy. I. A. A. PÉRÈS*; R. HADID; N. AMADA; C. L. HILL; A. ALHUSAINI; A. J. HILL; C. M. WILLIAMS; B. J. WHALLEY. *Univ. of Reading, Univ. of Reading, Univ. of Reading.*

11:00 T16 **534.04** Inhibitory action of levetiracetam on CA1 population spikes and dentate gyrus excitatory transmission in pilocarpine-treated chronic epileptic rats. E. G. SANABRIA*; L. PACHECO; J. ZAVALETA; F. SHRIVER; L. M. RAMBO; C. UPRETI; P. K. STANTON. *Univ. of Texas Brownsville, Univ. Federal de Santa Maria, New York Med. Col.*

8:00 T17 **534.05** Fish oil provides protection against the oxidative stress in the animal model of epilepsy induced by pilocarpine. M. B. NEJM*; A. A. HAIDAR; A. E. HIRATA; R. M. CYSNEIROS; E. A. CAVALHEIRO; F. A. SCORZA. *Federal Univ. of Sao Paulo, Mackenzie Presbyterian Univ.*

9:00 T18 **534.06** Anticonvulsant effects of α-terpineol isolated from myristica fragrans on epileptic rat models and its inhibitory activity on GABAA receptor modulators in xenopus oocytes. J. M. ABDULLAH*, Prof; M. R. ISLAM; C. H. TARMIZI; H. OSMAN. *Universiti Sains Malaysia, Bangladesh Agr. Univ., Universiti Sains Malaysia.*

10:00 U1 **534.07** ● Determining efficacy of retigabine on acute limbic seizure threshold in adult rats. L. K. FRIEDMAN*; J. P. WONGVRAVIT; A. M. SLOMKO; S. HU; W. WAN; S. ALI; Z. NASSEER. *New York Med. Col.*

11:00 U2 **534.08** An *in vitro* screen for antiepileptogenic compounds utilizing organotypic hippocampal slice cultures. Y. SAPONJIAN*; Y. BERDICHEVSKY; W. SWIERCZ; K. STALEY. *Massachusetts Gen. Hosp., Lehigh Univ.*

8:00 U3 **534.09** ● Ezogabine protects against status epilepticus-induced neurodegeneration and cognitive decline. A. B. ALEX*; S. D. DRAPER; K. JOHNSON; J. L. FITTS; H. S. WHITE. *Anticonvulsant Drug Develop. Program, Univ. of Utah.*

9:00 U4 **534.10** ● Cannabidiol and cannabidivarin in a non-psychoactive, well defined marijuana extract exert linearly additive anticonvulsant effects against generalised seizures. T. D. HILL*; M. DUNCAN; C. M. WILLIAMS; A. J. HILL; B. J. WHALLEY. *Univ. of Reading, GW Pharmaceuticals plc, Univ. of Reading.*

10:00 U5 **534.11** Anticonvulsant effect of phenytoin transported by magnetic nanoparticles in an animal model of P-glycoprotein brain overexpression. A. ROSILLO-DE LA TORRE*; L. ZURITA-OLVERA; J. LUNA-BARCENAS; S. OROZCO-SUAREZ; P. GARCIA; L. ROCHA. *Cinvestav, Cinvestav, IMSS, Univ. Autónoma de Ciudad Juarez.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 U6 **534.12** Liposome-encapsulated melatonin attenuates trimethyltin-induced neurotoxicity via inhibition of protein kinase Cδ proteolysis. M. WIE*; J. LEE; Y. NAM; J. JEONG; J. LEE; E. SHIN; H. KIM. *Kangwon Natl. Univ., Kangwon Natl. Univ., Chung-Ang Univ., Chung-Ang Univ.*

8:00 U7 **534.13** Anticonvulsant action of the cyclooxygenase inhibitor celecoxib in an *in vitro* post-traumatic epilepsy model. K. PARK*; Y. SAPONJIAN; V. DZHALA; M. MAIL; K. STALEY. *Massachusetts Gen. Hosp.*

9:00 U8 **534.14** Synthetic Vitamin K derivatives provide protection in multiple neurological disease models. B. JOSEY*; R. COMER; E. INKS; J. RAHN; S. CHAN; J. CHOU. *Med. Univ. of South Carolina.*

10:00 U9 **534.15** ● Resveratrol treatment after the onset of status epilepticus reduces neurodegeneration and inflammation in the adult hippocampus. V. MISHRA*; B. SHUAI; B. HATTIANGADY; A. K. SHETTY. *Texas A&M Hlth. Sci. Ctr. Col. of Med., Central Texas Veterans Hlth. Care Syst.*

11:00 U10 **534.16** Delayed post-treatment with atropine sulfate arrests generalized seizures induced by soman in immature male rats. S. L. MILLER*; T. H. FIGUEIREDO; E. M. PRAGER; C. P. ALMEIDA-SUHETT; J. P. APLAND; V. ARONIADOU-ANDERJASKA; M. F. M. BRAGA. *Uniformed Services Univ. of the Hlth. Sci., United States Army Med. Res. Inst. of Chem. Def.*

8:00 U11 **534.17** Biosimulation of mesiotemporal lobe epilepsy for the search of new antiepileptic drugs and anticipation of proconvulsant risks. A. LEGENDRE; F. PERNOT; R. GREGET; C. ROUCARD; A. DEPAULIS; L. FAGNI; A. F. KELLER; N. AMBERT; M. SARMIS; J. C. BOUTEILLER*; M. BAUDRY; T. W. BERGER; S. BISCHOFF. *Rhenovia, SynapCell, GIN, IGF, USC, Western Univ. of Hlth. Sci.*

9:00 U12 **534.18** The behavioral rescue with rapamycin early following status epilepticus is not long-lasting. A. CARTER*; A. L. BREWSTER; J. N. LUGO; W. L. LEE; A. E. ANDERSON. *Baylor Col. of Med., Dept. of Neurosci., Baylor Col. of Med.*

10:00 U13 **534.19** Anticonvulsant activity of a parenteral allopregnanolone formulation in mouse seizure and status epilepticus models. D. ZOLKOWSKA*; A. DHIR; C. WU; H. WULFF; B. INCEOGLU; B. D. HAMMOCK; P. J. LEIN; M. A. ROGAWSKI. *Univ. of California, Davis, Univ. of California, Davis, Univ. of California, Davis, Univ. of California, Davis, Univ. of California, Davis.*

11:00 U14 **534.20** ● Characterization of methamphetamine's effect on post-traumatic epilepsy. D. SMITH; D. BROOKS; E. WOHLGENHAGEN; T. RAU; D. J. POULSEN*. *Univ. Montana.*

POSTER

535. Epilepsy: Human Studies

Theme C: Disorders of the Nervous System

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

8:00 U15 **535.01** Epilepsy and consciousness: Behavioral deficits in partial seizures are bimodally distributed. C. CUNNINGHAM*; W. CHEN; A. SHORTEN; T. CHOEZOM; M. MCCLURKIN; C. SCHMIDT; A. BOZIK; C. BEST; M. CHAPMAN; V. CHU; M. FURMAN; J. T. GIACINO; H. BLUMENFELD. *Yale Sch. of Med., Harvard Med. Sch.*

9:00 U16 **535.02** Spatiotemporal evolution of seizures using a 3D object detection algorithm. R. WAHNOUN*; A. BHARGAVA; P. D. ADELSON. *Barrow Neurolog. Inst. At Phoenix Childrens Hosp.*

10:00 U17 **535.03** Human mesial temporal lobe single neuron dynamics during recruitment into a generalizing seizure. A. MISRA*; X. LONG; M. SPERLING; A. SHARAN; K. MOXON. *Drexel Univ. BIOMED, Thomas Jefferson Univ., Thomas Jefferson Univ.*

11:00 U18 **535.04** Spatial variability of cortical ripples in humans. E. TÓTH*; L. ENTZ; I. ULBERT; L. ERŐSS; D. FABÓ. *Pázmány Péter Catholic Univ., Hungarian Acad. of Sci., Natl. Inst. of Neurosciences.*

8:00 V1 **535.05** ▲ Accurate estimation of cortico-cortical distance between intracranial electrode contacts. J. D. TURNER*; B. JOSHI; A. PANDAY; R. MUNBODH; H. P. ZAVERI. *UNC Charlotte, Univ. of Pennsylvania, Yale Univ.*

9:00 V2 **535.06** Immunolocalization of metallothionein in patients with temporal lobe epilepsy. M. MENDEZ-ARMENTA*; C. NAVA-RUIZ; M. ALONSO-VANEGAS; M. BUENTELLO-GARCÍA; D. JUAREZ-REBOLLAR. *Natl. Inst. Neurol Neurosurg., Natl. Inst. Neurol Neurosurg.*

10:00 V3 **535.07** ● Inflammatory process in neocortex of patients with refractory epilepsy. J. VILLEDA*, SR; M. ALONSO; L. ROCHA; S. OROZCO; V. CAMPOS; F. FERNANDEZ. *INSTITUTO NACIONAL DE NEUROLOGIA Y NEUROCIRUGIA MVS, INSTITUTO NACIONAL DE NEUROLOGIA Y NEUROCIRUGIA MVS, Ctr. de Investigación y estudios Avanzados, IPN, Hosp. de especialidades del Ctr. Médico Nacional, México4., INSTITUTO NACIONAL DE NEUROLOGIA Y NEUROCIRUGIA MVS.*

11:00 V4 **535.08** Evaluation of the density and signaling of histamine H3 receptors in the temporal cortex and hippocampus of patients with pharmacoresistant temporal lobe epilepsy. I. BAÑUELOS-CABRERA*; M. CUELLAR-HERRERA; S. OROZCO-SUAREZ; M. ALONSO-VANEGAS; J. ARIAS-MONTAÑO; L. ROCHA. *CINVESTAV-IPN, Epilepsy Clin. of Gen. Hosp., Med. Res. Unit in Neurolog. Diseases. Specialty Hospital. Natl. Med. Center, Century XXI, IMSS, Natl. Inst. of Neurol. and Neurosurg. "Manuel Velasco Suarez".*

8:00 V5 **535.09** ▲ Co-localized measurements of intracranial EEG spikes and extracellular glutamate in patients with medically intractable epilepsy. N. GANESH; C. ONG; C. HALDEMAN; E. DAMISAH; I. I. GONCHAROVA; D. D. SPENCER; T. EID; H. ZAVERI*. *Yale Univ., Yale Univ., Yale Univ.*

9:00 V6-DP5 **535.10** Intracranial depth electrode recordings with fine spatial and temporal resolution show neural correlates of movement in humans. M. KERR; H. PARK; K. KAHN; J. BULACIO; J. GONZALEZ-MARTINEZ; S. V. SARMA*; J. GALE. *Johns Hopkins Univ., Cleveland Clin.*

10:00 V7 **535.11** Neuronal stress responses are more related to APOE genotype than to stress modality or age. O. ABOUD; R. E. MRAK; F. A. BOOP; S. T. GRIFFIN*. *Univ. Ark Med. Sci., Univ. of Toledo Hlth. Sci. Campus, Univ. of Tennessee Hlth. Sci. Ctr., Central Arkansas Veterans Hlth. Care Syst.*

11:00 V8-DP4 **535.12** Detecting preseizure states in intracranial EEG data using an adaptation of diffusion maps. D. DUNCAN*; R. TALMON; H. P. ZAVERI; R. R. COIFMAN. *Yale Univ.*

8:00 V9 **535.13** Predicting when MRI and FDG-PET will exhibit epileptogenic findings. W. T. KERR*; A. TREFLER; K. R. RAMAN; E. S. HWANG; N. SALAMON; M. S. COHEN. *UCLA Semel Inst., UCLA, UCLA, UCLA.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 V10 **535.14** ▲ Effect of parent gender and education on the quality of life in pediatric epilepsy-results of an outpatient cross sectional study. M. IQBAL; S. AMIRSALARI; M. RAZA*. *Baqiyatallah Univ. of Med. Sci., Baqiyatallah Univ. of Med. Sci., Baqiyatallah Univ. of Med. Sci.*

10:00 V11 **535.15** Spatial organization of the mapk signaling interactome in human epileptic brain. S. BAGLA*; J. LOEB. *Wayne State Univ., Univ. of Illinois Chicago.*

11:00 V12 **535.16** Specific transcripts of the Brain Derived Neurotrophic Factor increase in hippocampus of patients with sclerosis-associated temporal lobe epilepsy. G. MARTÍNEZ-LEVY*, JR; L. ROCHA; M. A. ALONSO-VANEGAS; A. NANI; R. M. BUENTELLO-GARCIA; R. PEREZ-MOLINA; M. BRIONES-VELASCO; F. RECILLAS-TARGA; A. PEREZ-MOLINA; C. S. CRUZ-FUENTES. *Natl. Inst. of Psychiatry, Ctr. for Res. and Advanced Studies, Natl. Inst. of Neurol. and Neurosurg., UNAM.*

8:00 W1 **535.17** Quantifying metal distributions using synchrotron x-ray fluorescence imaging of hippocampal resected in human epilepsy surgery. A. LAM*; C. M. FLOREZ; B. D. KOCAR; S. M. WEBB; L. FRUTOS; S. MYLVAGANAM; T. VALIANTE; P. L. CARLEN; E. L. OHAYON. *Neurolinx Res. Inst., Toronto Western Res. Inst., Stanford Synchrotron Radiation Lightsource, Salk Inst. for Biol. Studies.*

9:00 W2 **535.18** Profiles of BDNF/TrkB signaling pathways in human hypothalamic hamartoma tissues. S. SEMAAN; J. WU; Y. CHANG*; Y. HUANG. *St. Joseph's Hosp. and Med. Ctr., Barrow Neurolog. Inst., St. Joseph's Hosp. & Med. Ctr.*

10:00 W3 **535.19** Operant processes suppress epileptic processes. J. C. NEILL*; N. ALVAREZ. *Long Island Univ., Children's Hospital, Boston.*

11:00 W4 **535.20** ● Prospective testing of driving during clinical and subclinical seizures in patients with epilepsy. W. CHEN*; A. BAUERSCHMIDT; M. W. YOUNGBLOOD; C. CUNNINGHAM; C. EZEANI; Z. KRATOCHVIL; J. BRONEN; J. THOMSON; K. RIORDAN; J. Y. YOO; R. SHIRKA; L. MANGANAS; L. J. HIRSCH; H. BLUMENFELD. *Yale Sch. of Med., Yale Sch. of Med.*

8:00 W5 **535.21** Characteristic neuronal activities of patients with mesial temporal lobe epilepsy: an *in vitro* imaging study of the resected non-sclerotic hippocampus. H. KITAURA*; H. MASUDA; H. SHIMIZU; H. SHIROZU; H. MURAKAMI; H. TAKAHASHI; S. KAMEYAMA; A. KAKITA. *Brain Res. Inst, Niigata Univ., Nishi-Niigata Chuo Natl. Hosp., Brain Res. Inst. Niigata Univ.*

9:00 W6 **535.22** Study of polymorphisms in the coding regions of cyp2d6 and cyp2c19 genes associated with metabolism of antiepileptic drugs in mexican childrens with refractary epilepsy. M. A. LÓPEZ GARCÍA*; S. OROZCO-SUAREZ; I. FERIA ROMERO; H. FERNANDO SERRANO; I. GRIJALVA OTERO; D. RAYO; M. FRAIRE; I. VERGARA; P. FAGIOLINO. *Inst. Mexicano Del Seguro Social, Inst. Mexicano Del Seguro Social, UNIVERSIDAD AUTONOMA METROPOLITANA, Inst. Mexicano del Seguro Social, Inst. Mexicano del Seguro Social, Facultad de Química.*

10:00 W7 **535.23** Genomic variation associated with common forms of human epilepsy. R. J. BUONO*; J. BRADFIELD; Z. WEI; M. R. SPERLING; D. DLUGOS; W. LO; T. N. FERRARO; H. HAKONARSON. *Cooper Med. Sch. of Rowan Uniersity, The Children's Hosp. of Philadelphia, Thomas Jefferson Univ. Hosp., Nationwide Children's Hosp.*

11:00 W8 **535.24** ▲ ABCB1 gene polymorphisms in Mexican pediatric patients with drug-resistant complex partial epilepsy. D. ESCALANTE SANTIAGO*; S. OROZCO-SUAREZ; I. FERIA-ROMERO; D. RAYO-MARES; R. RIBAS-APARICIO; I. GRIJALVA-OTERO; P. FAGIOLINO. *Inst. Mexicano Del Seguro Social, Inst. Mexicano del Seguro Social, Inst. Mexicano del seguro Social, Inst. Mexicano del Seguro Social, Inst. Politecnico Nacional, Inst. Mexicano del Seguro Social, Univ. de la Republica.*

8:00 W9 **535.25** ● A novel approach to model the consequences of non-adherence in newly diagnosed patients with epilepsy. K. E. THOMSON*; C. RUEDA; A. C. MODI; T. A. GLAUSER; S. WHITE. *Anticonvulsant Drug Develop. Program, Univ. of Utah, Cincinnati Children's Hosp. Med. Ctr., Cincinnati Children's Hosp. Med. Ctr.*

POSTER

536. Epilepsy: Hippocampus and Learning Disorders

Theme C: Disorders of the Nervous System

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

8:00 W10 **536.01** Rats with epilepsy reinforce poor spatial information during sleep following a spatial task. A. S. TITIZ*; M. MAHONEY; M. TESTORF; P. LENCK-SANTINI; G. HOLMES; R. SCOTT. *Geisel Sch. of Med. at Dartmouth.*

9:00 W11 **536.02** Genetic modifiers of generalized epilepsy mutations in mice. W. N. FRANKEL*; T. C. MCGARR; C. L. MAHAFFEY; B. J. BEYER; V. A. LETTS. *The Jackson Lab.*

10:00 W12 **536.03** Psychoneurochemical investigations to reveal neurobiology of depression, learning and memory deficit in epilepsy. R. K. GOEL*; A. MISHRA. *Professor,, Punjabi Univ.*

11:00 W13 **536.04** Early life seizures in female rats lead to anxiety-related and abnormal social behaviors. R. M. CYSNEIROS*; A. S. S. CASTELHANO; G. S. T. CASSANE. *Univ. Presbiteriana Mackenzie.*

8:00 W14 **536.05** ● Focal epileptiform activity in the prefrontal cortex is associated with long-term attention and sociablity deficits. A. E. HERNAN*; A. ALEXANDER; K. JENKS; J. BARRY; P. J. LENCK-SANTINI; E. ISAEVA; G. L. HOLMES; R. C. SCOTT. *Geisel Sch. of Med. at Dartmouth, State Key Lab. for Mol. and Cell. Biol., Univ. Col. London.*

9:00 W15 **536.06** Mossy fiber sprouting in the BDNF-enriched hippocampus. K. M. GUTHRIE*; C. AYDIN; C. PARE; C. ISGOR. *Florida Atlantic Univ.*

10:00 W16 **536.07** Electrophysiological properties of age-defined dentate granule cells in a rodent model of temporal lobe epilepsy. A. L. ALTHAUS*; H. ZHANG; E. MESSENGER; G. G. MURPHY; J. M. PARENT. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

11:00 W17 **536.08** Inhibitory signaling to dentate granule cells following traumatic brain injury. C. R. BUTLER*; J. A. BOYCHUK; B. N. SMITH. *Univ. of Kentucky, Univ. of Kentucky.*

8:00 W18 **536.09** Aberrant hippocampal neuron organization in the seizure-prone naked mole-rat. M. ZIONS; X. A. GEOFFROY; C. VICIDOMINI; D. P. MCCLOSKEY*. *The Grad. Ctr. at CUNY, Col. of Staten Island/CUNY, Col. Staten Island/ CUNY.*

9:00 X1 **536.10** Development of corrupted dentate granule cell activation properties in a mouse model of temporal lobe epilepsy. C. G. DENGLER*; S. F. FRAUSTO; H. TAKANO; D. A. COULTER. *Univ. of Pennsylvania, Children's Hopsital of Philadelphia.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 X2 **536.11** Hippocampal cell loss and moderate gliosis in rats injected with bethanechol. J. C. DA SILVA*; J. VALERO; J. O MALVA; E. ABRÃO CAVALHEIRO. *Escola Paulista De Medicina/Universidade Federal De São Paulo - UNIFESP, Ctr. for Neurosci. and Cell Biology, Univ. of Coimbra, Fac. Med. Univ. of Coimbra, Escola Paulista De Medicina/Universidade Federal De São Paulo - UNIFESP.*

11:00 X3 **536.12** Mossy fiber axon abnormalities in a conditional PTEN knock out mouse model of temporal lobe epilepsy. C. L. LASARGE*; S. C. DANZER. *Cincinnati Children's Hosp. Med. Ctr.*

8:00 X4 **536.13** Dendritic analyses of hippocampal dentate gyrus granule and CA3 pyramidal neurons in brain-derived neurotrophic factor overexpressing mice. C. ISGOR*; F. HOSSAIN; C. AYDIN; O. OZTAN; K. GUTHRIE. *Florida Atlantic Univ., Univ. of Michigan.*

9:00 X5 **536.14** Threshold for granule cell mediated epileptogenisis. I. J. ROLLE*; B. KESTLER; R. PUN; S. DANZER. *Univ. of Cincinnati, Cincinnati Children's Hosp. Med. Ctr.*

10:00 X6 **536.15** Selective loss of hilar mossy cells increases dentate excitability. S. JINDE*; V. ZSIROS; K. NAKAO; K. NAKAZAWA. *Dept of Neuropsychiatry, The Univ. of Tokyo, NIMH/NIH.*

11:00 X7 **536.16** ▲ Early-life seizures result in long-term elevation in anxiety in mice and spatial learning deficits. N. AHMED*; G. SMITH; E. ARBUCKLE; J. N. LUGO. *Baylor Univ., Baylor Univ., Baylor Univ.*

8:00 X8 **536.17** Lateral and medial perforant path inputs activate distinct populations of hippocampal dentate granule cells. S. F. FRAUSTO*; C. YUE; C. G. DENGLER; H. TAKANO; D. A. COULTER. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Univ. of Pennsylvania, Univ. of Pennsylvania.*

POSTER

537. Ischemia: Pathophysiology, Biomarkers and Treatment

Theme C: Disorders of the Nervous System

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

8:00 X9 **537.01** A novel reproducible model of neonatal stroke in mice: Comparison with a hypoxia-ischemia model. M. TSUJI*; M. OHSHIMA; A. TAGUCHI; Y. KASAHARA; T. IKEDA; T. MATSUYAMA. *Natl. Cerebral and Cardiovasc. Ctr., Inst. of Biomed. Res. and Innovation, Mie Univ. Sch. of Med., Inst. for Advanced Med. Science, Hyogo Col. of Med.*

9:00 X10 **537.02** A critical role for cortical activation in protection from ischemic stroke damage. M. F. DAVIS*; C. H. CHEN-BEE; R. D. FROSTIG. *UC Irvine.*

10:00 X11 **537.03** Investigating the association between reduced CVR, cortical thinning and cognitive deficits in the pediatric population with sickle cell disease. J. KIM*; J. LEUNG; J. LERCH; G. DEVEBER; B. NIEMAN*; A. KASSNER. *Univ. of Toronto, Hosp. For Sick Children, Hosp. For Sick Children, Univ. of Toronto.*

11:00 X12 **537.04** Role for microRNA-200c in response to ischemia. C. M. STARY; L. XU; Y. OUYANG; J. MOON; R. G. GIFFARD*. *Stanford University, Dept. of Anesthesia.*

8:00 X13 **537.05** Erythropoietin attenuates KCC2 chloride cotransporter loss and promotes recovery following *in utero* hypoxia-ischemia. L. L. JANTZIE*; D. J. FIRL; S. ROBINSON. *Children's Hosp. Boston, Children's Hosp. Boston.*

9:00 X14 **537.06** Neuroprotective effects of Taurine and S-methyl-N, N diethylthiocarbamate sulfoxide on rat middle cerebral artery occlusion stroke model. P. MOHAMMAD GHARIBANI*; J. MODI; J. MENZI; H. PRENTICE; J. WU. *Florida Atlantic Univ.*

10:00 X15 **537.07** Regional and gender specific hypothermic neuroprotection in a neonatal mouse model of hypoxic-ischemic injury. J. C. BURNSED; J. ZHANG; R. CHAVEZ-VALDEZ; K. KESAVAN; L. J. MARTIN; F. J. NORTHINGTON*. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

11:00 X16 **537.08** ● The initial inflammatory response may predict long-term functional outcome in stroke. B. STAMOVA*; G. JICKLING; B. ANDER; X. ZHAN; D. LIU; J. KHOURY; A. PANCIOLI; E. JAUCH; J. P. BRODERICK; F. R. SHARP. *UC Davis Med. Ctr. MIND Inst., Cincinnati Children's Hosp. Med. Center,, Univ. of Cincinnati, Med. Univ. of South Carolina.*

8:00 X17 **537.09 Withdrawn.**

9:00 X18 **537.10** Possible relationship between decreased expression of lysosomal-associated membrane protein type 2A and delayed neuronal death after brain ischemia. E. DOHI*; S. TANAKA; T. SEKI; T. MIYAGI; I. HIDE; T. TAKAHASHI; M. MATSUMOTO; N. SAKAI. *Hiroshima Univ., Hiroshima Univ.*

10:00 Y1 **537.11** Effects of focal ischemic lesions of the prefrontal cortex on cognition in the rat. R. A. DÉZIEL*; R. A. TASKER. *Univ. of Prince Edward Island.*

11:00 Y2 **537.12** TRPM2 contributes to ischemia-induced delayed neuronal death in hippocampal CA1 region and impairment in motor activity via disrupting zinc homeostasis. M. YE*; W. YANG; W. YU; X. ZHANG; L. JIANG; J. LUO. *Inst. of Neuroscience, Zhejiang Univ. Sch. of Med., Sch. of Biomed. Sciences, Fac. of Biol. Sciences, Univ. of Leeds.*

8:00 Y3 **537.13** A novel method for inducing focal ischemia in the rat using L-N5-(1-Iminoethyl)ornithine. A. VAN SLOOTEN*; A. CLARKSON; B. CONNOR. *The Univ. of Auckland, Univ. of Otago.*

9:00 Y4 **537.14** Mitochondria play a role in the protective and destructive effects of chronic intermittent hypoxia on the ischemic brain. K. A. JACKMAN*; P. ZHOU; G. FARACO; T. KAHLES; C. COLEMAN; V. M. PICKEL; C. IADECOLA. *Weill Cornell Med. Col.*

10:00 Y5 **537.15** Selective neuronal vulnerability of hippocampal CA1 neurones in acute neurological disorders. T. BARTSCH*; J. DÖHRING; H. BRAUER; J. LAGIES; A. ROHR; G. DEUSCHL; O. JANSEN. *Univ. of Kiel, Univ. Hosp., Inst. of Neuroradiology.*

11:00 Y6 **537.16** Hsp70, hsp90 and icam-1 as early biomarkers for global cerebral ischemia. M. JIANG*; E. CURFMAN; B. C. HONG-GOKA; R. D. SWEAZEY; F. F. CHANG. *Indiana Univ. Sch. of Medicine-Fort Wayne, UCSF-Fresno Alzheimer's & Memory Ctr.*

8:00 Y7 **537.17** Activation of HIF-1 mediates exacerbated blood-brain barrier disruption in ischemic stroke. Z. ZHANG*; H. SHI. *Univ. of Kansas.*

9:00 Y8 **537.18** NRF-2 activation protects ischemic white matter injury. S. K. AGRAWAL*; V. KESHERWANI; F. ATIF; S. YUSUF. *Univ. Nebraska Med. Ctr., Univ. of Nebraska medical Ctr., Emory Univ.*

10:00 Y9 **537.19** ▲ Cortical mapping of circuits affected by intracerebral hemorrhage in the mouse. T. LANMAN*; H. C. BARRATT; S. T. CARMICHAEL. *David Geffen Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 Y10 **537.20** Tumor necrosis factor related apoptosis inducing ligand determines loss of the neuroprotective effect of preconditioning in rats undergone transient middle cerebral artery occlusion. G. CANTARELLA*; G. DI BENEDETTO; G. PIGNATARO; L. ANNUNZIATO; R. BERNARDINI. *Univ. of Catania, Med. School, Italy, Federico II Univ. of Naples.*

8:00 Z1 **537.21** The evaluation of hyperbaric oxygen tratment in neurodegenerative diseases. C. WU; I. WANG; Y. LEE; C. SU; H. WANG; I. LO; K. J. TSAI*. *Inst. of Basic Med. Science, Natl. Cheng Kung Univ., Natl. Cheng Kung University, Inst. of Clin. Med., Inst. of Life Science, Natl. Def. Med. Ctr., Inst. of Mol. Biology, Academia Sinica.*

9:00 Z2 **537.22** Time-dependent formation/elimination of nucleic γ-H2AX and its cytosolic distribution in a rat hippocampal neuron culture model of ischemic stroke. A. I. MARTIN*; R. D. SWEAZEY; B. C. HONG-GOKA; F. F. CHANG. *Indiana Univ. Sch. of Med. - Fort Wayne, UCSF - Fresno Alzheimer's & Memory Ctr.*

10:00 Z3 **537.23** Quantifying hemodynamic changes in a transient filament model of focal cerebral ischemia with 2d optical imaging spectroscopy. F. BURROWS*; A. DENES; N. BRAY; S. ALLAN; I. SCHIESSL. *Univ. Of Manchester, Univ. of Manchester.*

POSTER

538. Neurotoxicity and Neurodegeneration II

Theme C: Disorders of the Nervous System

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

8:00 Z4 **538.01** Role of AMPA receptors in homocysteine-NMDA receptor mediated crosstalk between ERK and p38 MAP kinase. R. PODDAR*; S. PAUL. *Univ. of New Mexico.*

9:00 Z5 **538.02** ● Intracerebroventricular administration of interleukin-1β elevates brain kynurenic acid and disrupts PPI in C57BL/6 mice. S. CALDWELL; M. LARSSON; M. KAMENSKI; L. SCHWIELER; G. ENGBERG; V. B. RISBROUGH; S. ERHARDT; S. B. POWELL*. *UCSD, Karolinska Institutet, VA Ctr. of Excellence for Stress and Mental Hlth.*

10:00 Z6 **538.03** Surgery affects synaptic plasticity and astrocyte activity contributing to postoperative cognitive decline. M. GÓMEZ; T. YANG; M. LINDSKOG; L. ERIKSSON; N. TERRANDO*. *Karolinska Institutet, Karolinska Institutet.*

11:00 Z7 **538.04** Misoprostol protects brain against intracerebral hemorrhage. J. WANG*; H. WU; T. WU; X. ZHAO; W. CHEN. *Johns Hopkins Univ., Sch. of Med.*

8:00 Z8 **538.05** ▲ Plasma levels of neuron specific enolase quantifies the extent of neuronal injury in murine models of ischemic stroke and multiple sclerosis. T. DAEHN*; M. GELDERBLOM; B. SCHATTLING; P. LUDEWIG; C. BERNREUTHER; P. ARUNACHALAM; M. GLATZEL; C. GERLOFF; M. A. FRIESE; T. MAGNUS. *Univ. Hosp. Hamburg-Eppendorf, Zentrum für molekulare Neurobiologie Hamburg (ZMNH).*

9:00 Z9 **538.06** ● Selective P2X7 receptor antagonists inhibit Bz-ATP induced IL-1β release in the rat brain. I. FRASER*; L. ALUISIO; P. BONAVENTURE; B. SAVALL; M. LETAVIC; N. CARRUTHERS; T. LOVENBERG; A. BHATTACHARYA. *Janssen.*

10:00 Z10 **538.07** Single high dose methamphetamine recruits dopamine transporter and parkin to rat striatal terminals in a microtubule dependent manner. B. A. KILLINGER*; A. MOSZCZYNSKA. *Wayne State Univ.*

11:00 Z11 **538.08** Lipocalin-2 induction in sterile neuroinflammation: A marker for neuronal cell death. M. BANJARA; K. BENNETT; A. FERNANDEZ; J. STOLL*. *Texas Tech. Sch. of Pharm., Texas Tech. Univ. HSC, Texas Tech. Sch. of Pharm., Texas Tech. Sch. Pharm.*

8:00 Z12 **538.09** Emotional and cognitive behaviour changes are associated with increased corticosterone and changes in glutamatergic transmission in the early stages of experimental allergic encephalomyelitis (EAE), a mouse model of multiple sclerosis. S. ACHARJEE*; N. NAYANI; M. TSUTSUI; M. N. HILL; S. S. OUSMAN; Q. J. PITTMAN. *Univ. of Calgary, Univ. of Calgary, Univ. of Calgary.*

9:00 Z13 **538.10** Determining the mechanism of orexin A induced neuroprotection in an *Ex vivi* arcuate nucleus model. C. M. DUFFY*; C. J. BILLINGTON; C. M. KOTZ; J. P. NIXON; T. A. BUTTERICK. *Univ. of Minnesota, VA Med. Ctr., Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

10:00 Z14 **538.11** Complex response of brain endothelial cells to hypoxia: Implications for Alzheimer's disease. J. LUO; A. PANDEY; X. YIN; J. M. MARTINEZ*; P. GRAMMAS. *Garrison Inst. On Aging At Texas Tech. Hlth. Sci. Ctr.*

11:00 Z15 **538.12** Chronic low-dose methylmercury treatment disrupts mitochondrial ATP production of striatal synaptosomes in male BALB/c mice. S. M. FOX*; W. D. ATCHISON. *Michigan State Univ.*

8:00 Z16 **538.13** ▲ Inflammatory changes in brain after ozone exposure. E. G. GUEVARA*; J. MARTÍNEZ-LAZCANO; V. CUSTODIO RAMÍREZ; M. HERNÁNDEZ-CERÓN; C. RUBIO OSORNIO; C. PAZ TRES. *Inst. Nacional de Neurología y Neurocirugía, Univ. Nacional Autónoma de México, Univ. Autonoma Metropolitana.*

9:00 Z17 **538.14** Inhibition of nitrodative-inflammatory cascade in experimental paradigm of quinolinic acid -induced neurotoxicity: Neuroprotective profile of sesamol and quercetin. A. KUHAD*; S. SINGLA; V. ARORA; K. CHOPRA. *Panjab Univ.*

10:00 Z18 **538.15** The role of PGC1α and mitochondrial dynamics in lead-induced neurotoxicity. A. DABROWSKA*; N. HAJJI. *Imperial Col. London.*

11:00 AA1 **538.16** Novel mechanism of curcumin anti-inflammatory activity and control upstream of nf-kappa b activation in brain aging and neurodegenerative disease. Q. CHEN*; P. MAITI; X. ZUO; F. YANG; Q. MA; Z. YU; G. M. COLE; S. A. FRAUTSCHY. *UCLA, Third Military Med. Univ.*

8:00 AA2 **538.17** IL-17A and IL-17RA in mouse brain: Their expression and pathophysiological analyses by AAV-mediated overexpression of IL-17A. J. YANG*; J. KOU; R. LALONDE; K. FUKUCHI. *Univ. of Illinois Col. of Med. At Peoria, Univ. de Rouen.*

9:00 AA3 **538.18** ● Developing an animal model of fatigue: Neuroinflammation by pro-inflammatory cytokines. D. BONSALL*; G. B. MCKAY-CORKUM; P. C. MOLYNEUX; M. E. HARRINGTON. *Smith Col.*

10:00 AA4 **538.19** Loss of CA3 pyramidal neurons in mice deficient for SCYL2, a clathrin coated vesicle-associated protein pseudokinase. S. PELLETIER*; S. GINGRAS; S. HOWELL; L. EARLS; R. SMEYNE; S. ZAKHARENKO; J. N. IHLE. *St. Jude Children's Res. Hosp., St. Jude Children's Res. Hosp., St. Jude Children's Res. Hosp.*

11:00 AA5 **538.20** Astrocyte activation in white matter injury associated with cardiopulmonary bypass in a mouse brain slice model. K. AGEMATSU; L. KOROTCOVA; V. GALLO; N. ISHIBASHI; R. A. JONAS*. *Children's Natl. Med. Ctr., Children's Natl. Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 AA6 **538.21** Single cell imaging identifies toxic effects on functions relevant for neuronal communication. J. SISNAISKE; V. HAUSHERR; C. VAN THRIEL; N. SCHOEBEL*. *IfADo-Leibniz Res. Ctr. for Working Envrn. and Human Factors.*

9:00 AA7 **538.22** Sigma-1 Receptor Chaperone plays an essential role in neuronal function by regulating p35/CDK5. S. A. TSAI*; N. R. KLAUER; T. SU. *NIDA-IRP, NIH, Univ. of Minnesota Med. Sch.*

10:00 AA8 **538.23** Effects of soluble epoxide hydrolase inhibitor on NMDA-induced excitotoxicity and BDNF expression in cortical neurons. Y. KUO*; T. LEE; Y. LEE. *Dept. and Inst. of Physiology, Natl. Yang-Ming Univ., Taipei Veterans Gen. Hosp. and Natl. Yang-Ming Univ. Sch. of Med., Brain Res. Center, Natl. Yang-Ming Univ.*

11:00 AA9 **538.24** ● Perturbation in the miRNA gene regulation associated with neurodegeneration and neurogenesis. A. CHOUDHARY*; R. ROSHAN; K. SONI; A. R. SINGH; S. SHRIDHAR; R. DEY; S. SIVASUBBU; B. PILLAI. *Inst. of Genomics and Integrative Biol.*

8:00 AA10 **538.25** Dopamine transporter (DAT) expression in the medial prefrontal cortex and striatum of Long-Evans rats is affected by perinatal exposure to polychlorinated biphenyls. M. M. MILLER; J. L. NELMS; A. E. MEYER; H. J. SABLE*. *Univ. of Memphis, Univ. of Memphis.*

9:00 AA11 **538.26** Differential functions of infiltrating macrophages and resident microglia after spinal cord injury. A. D. GREENHALGH*; S. DAVID. *McGill Univ.*

10:00 AA12 **538.27** The role of microRNAs (miRNAs) in the inflammatory processes related to ageing: A pilot study. A. M. FLOREA*. *Dept. of Envrn. Toxicology, Univ. of Trier.*

11:00 AA13 **538.28** Effects of cytidine 5′-diphosphocholine (CDP-choline) on hypoglycemia-induced neuron death. J. KIM*; B. CHOI; H. KIM; J. YOO; M. SOHN; H. CHOI; H. SONG; S. SUH. *Hallym University, Col. of Med., Inha Univ.*

8:00 AA14 **538.29** Neuroinflammation: pathological mechanisms and the beneficial role of insulin therapy. L. ADZOVIC*; S. C. HOPP; R. M. KAERCHER; S. E. ROYER; H. M. D'ANGELO; G. L. WENK. *Ohio State Univ., Ohio State Univ., Ohio State Univ.*

POSTER

539. Somatosensory and Pain: Human Subjects

Theme C: Disorders of the Nervous System

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

8:00 AA15 **539.01** Baseline PAG cerebral blood flow predicts pain phenotype in a healthy human model of central sensitisation. M. MEZUE*; V. WANIGASEKERA; M. KELLY; M. CHAPPELL; I. TRACEY. *Univ. of Oxford.*

9:00 AA16 **539.02** Differential changes of axonal excitability of afferent C-fibers associated with different mutations of NaV1.7 in erythromelalgia patients. B. NAMER*; K. ØRSTAVIK; R. SCHMIDT; I. KLEGGETVEIT; C. WEIDNER; C. MØRK; K. KVARNEBO; Z. ZHANG; H. SALTER; T. H. CARR; S. G. WAXMAN; H. O. HANDWERKER; E. TOREBJÖRK; E. JØRUM; M. SCHMELZ. *Univ. of Erlangen, Rikshospitalet Univ. Hosp., Univ. of Uppsala, Rikshospitalet Univ. Hosp., Rikshospitalet Univ. Hosp., , Karolinska Institutet,, AstraZeneca R&D,, Yale Univ. Sch. of Med., Univ. of Heidelberg.*

10:00 AA17 **539.03** ● Proteins increased in cerebrospinal fluid after spinal cord stimulation elucidate human neuropathic pain relief mechanisms. ; M. SJÖDIN; L. KATILA; M. WETTERHALL; T. GORDH. *Dept. of Analytical Chem., Dept. of Surgical Sciences, Uppsala Univ.*

11:00 AA18 **539.04** Gamma oscillations in the somatosensory thalamus of a phantom limb patient. D. BASA*; M. HODAIE; A. LOZANO; W. D. HUTCHISON. *Univ. of Toronto, Toronto Western Hosp., Toronto Western Hosp.*

8:00 BB1 **539.05** ● Significant reduction in fibromyalgia (FM) tender point count, widespread pain index (WPI) and symptom severity (SS) score after one month of treatment with AVACEN thermal exchange system (TES). T. MOELLER-BERTRAM*; M. G. KINCAID; R. BOOHER; D. GARCIA; L. KY; J. M. SCHILLING; I. STRIGO. *Coastal Pain Res., Veteran Affairs San Diego Healthcare Syst., Univ. of California San Diego, Univ. of California San Diego, Palomar Hosp.*

9:00 BB2 **539.06** Disrupted functional connectivity of the periaqueductal gray in chronic low back pain. R. YU*. *HMS-MGH.*

10:00 BB3 **539.07** Acupuncture modulates functional connectivity in knee osteoarthritis patients. X. CHEN; R. SPAETH; F. SONYA; D. SCARBOROUGH; R. EDWARDS; A. WASAN; R. GOLLUB; J. KONG*. *Massachusetts Gen. Hosp., Massachusetts Gen. Hosp., Brigham and Women's Hosp.*

11:00 BB4 **539.08** Changes in low frequency oscillations in patients with neuropathic pain: A resting state fMRI study. E. BAGARINAO*, JR; I. CARROLL; N. CHATTERJEE; H. UNG; C. WANG; R. MOERICKE; S. MACKEY. *Stanford Univ.*

8:00 BB5 **539.09** Evidence of decreased innervation density in multiple myeloma patients with subclinical peripheral neuropathy prior to chemotherapy. A. KOSTURAKIS*; Z. HE; H. ZHANG; P. M. DOUGHERTY. *MD Anderson Cancer Ctr.*

9:00 BB6 **539.10** Multiple synaptic vesicle-associated proteins colocalize in mechanoreceptors and free nerve endings in skin. B. D. MCADAMS*; G. WENDELSCHAFER-CRABB; W. KENNEDY. *Univ. Minnesota Neurosci Prgm, Univ. Minnesota.*

10:00 BB7 **539.11** Fibromyalgia patients and healthy controls show differing cortical activation patterns during the stroop task: An fMRI study. S. MARTINSEN*; J. BERREBI; P. FLODIN; I. VILEVICIUTE-LJUNGAR; M. LÖFGREN; M. INGVAR; P. FRANSSON; E. KOSEK. *Karolinska Institutet, Dept. of Clin. Sciences, Danderyd Hosp.*

11:00 BB8 **539.12** Developmental trajectories of insula volume changes in adolescent anorexia nervosa. P. A. KRAGEL*; J. WANG; R. VALDOVINOS; N. L. ZUCKER; K. S. LABAR. *Duke Univ.*

8:00 BB9 **539.13** ATP and its receptor P2X2 and P2X3 in oral cancer induced pain. Y. YE*; K. ONO; D. BERNABE; C. VIET; J. DOLAN; A. FORD; B. SCHMIDT. *New York Univ. Bluestone Ctr. for Clin. Res., New York Univ., Afferent Pharmaceuticals.*

POSTER

540. Mood Disorders: Human Biomarkers and Treatment Studies

Theme C: Disorders of the Nervous System

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

8:00 BB10 **540.01** ● ▲ Baseline and change resting-state functional correlates of rTMS of the DMPFC for medically refractory anorexia and bulimia nervosa. K. DUNLOP*; T. SALOMONS; N. BAKKER; J. GERACI; P. GIACCOBE; M. OLMSTED; P. COLTON; B. WOODSIDE; J. DOWNAR. *Univ. of Toronto, Univ. Hlth. Network, Inst. of Med. Science, Univ. of Toronto, MRI-Guided rTMS Clinic, Toronto Western Hosp., Univ. of Toronto.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 BB11 **540.02** EEG source analysis in depressed patients treated with left prefrontal 5Hz transcranial magnetic stimulation. J. J. GONZÁLEZ-OLVERA*; J. RICARDO-GARCELL; M. L. GARCÍA-ANAYA; E. M. MIRANDA-TERRÉS; E. REYES-ZAMORANO. *INSTITUTO NACIONAL DE PSIQUIATRIA, Inst. de Neurobiología, Univ. Nacional Autónoma de México, Campus, Juriquilla, Querétaro, México, Inst. Nacional de Psiquiatría.*

10:00 BB12 **540.03** ● Study of association between brain-derived neurotrophic fator polymorphism (BDNF Val66Met) and suicide risk in a population-based study. G. GHISLENI*; F. P. MOREIRA; F. N. KAUFMANN; J. D. FABIÃO; E. SCHUCH; R. A. SILVA; D. CRISPIM; D. R. LARA; M. P. KASTER. *Univ. Católica De Pelotas, Univ. Federal do Rio Grande do Sul, Pontifícia Univ. Católica de Pelotas.*

11:00 CC1 **540.04** Evaluation of CYP2C19 genotype influence on dose-response to treatment by escitalopram. P. C. GHEDINI*; R. B. BRITO; K. S. A. SILVEIRA. *Federal Univ. of Goiás.*

8:00 CC2 **540.05** Altered functional connectivity of subgenual anterior cingulate cortex during negative emotion processing in adolescents with depression. T. C. HO*; G. YANG; J. WU; G. A. FONZO; C. G. CONNOLLY; M. CHAN; N. HOANG; A. N. SIMMONS; T. YANG. *Univ. of California, San Francisco, UCSD, Stanford Univ., Veterans Affairs San Diego Hlth. Care Syst.*

9:00 CC3 **540.06** ● Neuroimaging predictors of treatment response to intermittent theta-burst repetitive transcranial magnetic stimulation of the dorsomedial prefrontal cortex in refractory depression. N. BAKKER*, IV; J. DOWNAR; P. GIACOBBE; T. SALOMONS; J. GERACI; K. DUNLOP; D. BLUMBERGER; Z. J. DASKALAKIS; S. KENNEDY; A. FLINT. *Univ. of Toronto, Univ. Hlth. Network, Univ. of Toronto, Univ. of Toronto, Univ. of Toronto, Ctr. for Addiction and Mental Hlth.*

10:00 CC4 **540.07** A common snp variant in FKBP5 is associated with global reductions in levels of mediodorsal thalamic miRNAs in controls and schizophrenia, but not depression. K. A. YOUNG*; E. S. CARTER; D. PAPPALARDO CARTER. *Texas A&M HSC / Central Texas VA.*

11:00 CC5 **540.08** Neural predictors of antidepressant treatment response to Quetiapine XR and Citalopram in Major Depressive Disorder. A. BURGESS*; R. WHITE; F. CORTESE; B. GOODYEAR; A. PANICKER; A. KARNES; K. ROY; V. DIWADKAR; R. RAMMASUBBU. *Wayne State Univ. Sch. of Med., Univ. of Calgary.*

8:00 CC6 **540.09** The Additive Impact of Clinical Depression on white matter abnormalities in veterans with Co-morbid PTSD & Traumatic Brain Injury: A diffusion tensor imaging study. L. ISAAC; K. MAIN; S. SOMAN; J. KONG, I. H. GOTLIB; A. J. FURST; J. W. ASHFORD; *P. J. BAYLEY; M. ADAMSON. *VA Palo Alto Hlth. Care Syst., Stanford Univ., Stanford/Va Aging Clin. Res. Ctr.*

9:00 CC7 **540.10** ● Cerebrospinal fluid glutamate concentration correlates with impulsive aggression in human subjects. E. F. COCCARO; R. LEE; P. VEZINA*. *The Univ. of Chicago.*

10:00 CC8 **540.11** Discharge rates of neurons in the **POSTER**ior hypothalamus region in Sotos syndrome. W. D. HUTCHISON*; R. MICIELI; N. TRUJILLO; A. LOPEZ RIOS. Toronto Western Hosp., Univ. of Toronto, Univ. of Antioquia, Hosp. San Vicente Fundacion.

11:00 CC9 **540.12** Dysbalanced intrinsic connectivity of central executive and emotional salience network in borderline personality disorder. A. DOLL*; C. SORG; C. MENG; A. WOELLER; V. RIEDL; A. WOHLSCHLAEGER. *TUM-NIC Neuroimaging Center, Technische Univ. München, Ludwig-Maximilians-Universität, TUM-NIC Neuroimaging Center, Technische Univ. München, TUM-NIC Neuroimaging Center, Technische Univ. München, TUM-NIC Neuroimaging Center, Technische Univ. München, TUM-NIC Neuroimaging Center, Technische Univ. München.*

8:00 CC10 **540.13** Association between antidepressant treatment response and EEG alpha: current source density (CSD) spectral measures at rest and time-frequency (TF) measures during a novelty oddball. C. E. TENKE*; J. KAYSER; J. E. ALVARENGA; K. ABRAHAM; D. M. ALSCHULER; G. E. BRUDER. *NYS Psychiatric Inst.*

9:00 CC11 **540.14** ● ▲ A transporter-independent site for SSRI action. J. SCHAPPI*; A. CZYSZ; M. RASENICK. *Univ. of Illinois At Chicago, Univ. of Illinois At Chicago, Univ. of Illinois At Chicago.*

10:00 CC12 **540.15** ● Pre-treatment subcortical volumes and antidepressant response to ketamine: A predictive analysis. C. M. SINCLAIR*; A. C. NUGENT; D. A. LUCKENBAUGH; C. A. ZARATE. *NIH.*

11:00 CC13 **540.16** Differences in beta band activity correlate with clinical response to rTMS for depression. Y. PATHAK*; O. SALAMI; S. BAILLET; Z. LI; C. R. BUTSON. *Marquette Univ., Med. Col. of Wisconsin, McGill Univ., Med. Col. of Wisconsin.*

8:00 CC14 **540.17** Antidepressant treatment decreases glucocorticoid receptor translocation in neuroepithelial cells from living individuals with major depression and controls. B. R. WILLIS; D. SINCLAIR*; S. JEFFERSON; A. MANCEUR; O. BERTON; C. HAHN; K. BORGMANN-WINTER. *Neuropsychiatric Signaling Program, Univ. of Pennsylvania, Bryn Mawr Col., Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*

9:00 DD1 **540.18** Successful self-regulation of slow cortical potentials reduces aggression and improves error processing in psychopathic offenders. L. KONICAR*; R. VEIT; U. STREHL; N. BIRBAUMER. *Eberhard Karls Univ., Eberhard Karls Univ., Ospedale San Camillo, IRCCS.*

10:00 DD2 **540.19** Long-term sertraline treatment increases expression and decreases phosphorylation of glycogen synthase kinase-3b in platelets of patients with late-life major depression. H. P. JOAQUIM*; L. L. TALIB; B. S. DINIZ; O. V. FORLENZA; W. F. GATTAZ. *Psychiatry Intitute HCFMUSP, Lim-27, Psychiatry Intitute HCFMUSP, Lim-27.*

POSTER

541. Mood Disorders: Animal Models II

Theme C: Disorders of the Nervous System

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

8:00 DD3 **541.01** One-time brief vicarious pain is sufficient to enhance fear learning and trigger depression-like behaviors in mice. W. ITO*; A. MOROZOV. *Virginia Tech. Carilion Res. Inst.*

9:00 DD4 **541.02** PFC-amygdala circuit in a mouse model of vicarious pain. A. Y. MOROZOV*; W. ITO. *Virginia Tech. Carilion Res. Inst.*

10:00 DD5 **541.03** The role of BDNF-TrkB signaling in dorsal raphe nucleus to mediate antidepressant efficacy. M. ADACHI*; A. E. AUTRY; L. M. MONTEGGIA. *Univ. Texas Southwestern Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 DD6 **541.04** Inhibition of Orexinergic signaling leads to depression-like behaviors in diurnal grass rats. S. P. DEATS*; L. YAN. *Michigan State Univ., Michigan State Univ.*

8:00 DD7 **541.05** ▲ Attenuated orexinergic signaling in a diurnal rodent model of SAD. W. ADIDHARMA*; L. YAN. *Michigan State Univ.*

9:00 DD8 **541.06** Altered pain processing in rats with depressive-like behaviors: A high-resolution EEG/ERP study. Y. GUO; Y. XU; J. WANG*; F. LUO. *Inst. Psychol, Chin Acad Sci., Grad. Univ. of Chinese Acad. of Sci.*

10:00 DD9 **541.07** ▲ Augmented antidepressant properties of acute and chronic administration of imipramine in adult female rats treated prenatally with choline supplementation. C. EVANGELISTA*; N. K. ZIV; M. J. GLENN. *Colby Col.*

11:00 DD10 **541.08** ● Elucidating novel candidate genes and pathways determining variability in antidepressant response. C. LABERMAIER*; S. H. SCHARF; K. V. WAGNER; P. WEBER; M. UHR; M. V. SCHMIDT; E. B. BINDER; I. SILLABER; M. B. MÜLLER. *Max Planck Inst. of Psychiatry, F.Hoffmann-La Roche AG, Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry, Max Planck Inst. of Psychiatry, Phenoquest AG.*

8:00 DD11 **541.09** ● 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 B.V., CNCR, NCA, Vrije Univ., NCA, VU Med. Ctr., Erasmus Med. Ctr.*

9:00 DD12 **541.10** Sex differences in the effects of intranasal oxytocin administration on social investigation in socially defeated California mice (Peromyscus californicus). M. Q. STEINMAN*; C. E. MANNING; S. A. LAREDO; K. I. WALCH; B. C. TRAINOR. *Univ. of California.*

10:00 DD13 **541.11** Prenatal stress induces depressive-like behavior in a sex-specific manner; impact of familiar versus novel environments. H. M. SICKMANN*; T. S. ARENTZEN; M. P. KRISTENSEN; T. B. DYRBY; N. PLATH. *Fac. of Hlth. Sci. , Univ. of Copenhagen, H. Lundbeck A/S, Danish Res. Ctr. for Magnetic Imaging, Hvidovre Hosp.*

11:00 DD14 **541.12** Regulation of the serotonin autoreceptor (5-HT1A) and transporter (SERT) in the olfactory bulbectomy model of depression and following acute fluoxetine. M. RIAD; S. JOZAGHI; L. DESCARRIES; S. M. BOYE*. *Univ. of Montreal, Univ. of Montreal, Univ. of Montreal.*

8:00 DD15 **541.13** Ablation of serotonergic neurons in the dorsal raphe leads to anhedonia-like behavior in Wistar-Kyoto rats. P. C. PUGH*; N. L. JACKSON; I. A. KERMAN. *Univ. of Alabama At Birmingham.*

9:00 DD16 **541.14** Effects of maternal separation in behavior and cardiovascular system. S. RANA*; H. NAM; N. L. JACKSON; P. C. PUGH; J. M. WYSS; I. A. KERMAN. *Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham.*

10:00 DD17 **541.15** Characterization of depressive- and anxiety-like behaviors in different rat strains. H. NAM*; N. L. JACKSON; P. C. PUGH; S. RANA; S. M. CLINTON; I. A. KERMAN. *Univ. of Alabama At Birmingham.*

11:00 DD18 **541.16** The effects of fluoxetine and differential rearing on the expression of depressive-like states in male rats. D. ARNDT*; M. CAIN. *Kansas State Univ.*

8:00 EE1 **541.17** Implications of NMDAR GluN2B subunits within the BNST in the antidepressant effects of ketamine. K. LOUDERBACK*; B. D. TURNER; T. L. FETTERLY; D. G. WINDER. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

9:00 EE2 **541.18** Serum microvesicle proteins as potential biomarkers for mayor depressive disorder. C. GÓMEZ-MOLINA; A. LUARTE; E. AMPUERO; M. SANTIBAÑEZ; U. WYNEKEN*. *Univ. de Los Andes, Univ. De Los Andes.*

10:00 EE3 **541.19** Behavioral roles of cannabinoid type 2 receptor in depression. H. ISHIGURO*; K. TABATA; N. E. BUCKLEY; T. UEMURA; N. MOTOHASHI; Q. LIU; E. S. ONAIVI. *Univ. of Yamanashi, William Paterson Univ., California State Polytechnic Univ., NIDA-IRP/NIH.*

11:00 EE4 **541.20** Ultrasonic vocalizations during intermittent swim stress forecast resilience in subsequent forced swim and spatial learning tests. R. C. DRUGAN*; T. A. PAPALLO; L. L. CASTRACANE; T. A. WARNER; N. P. STAFFORD. *Univ. New Hampshire.*

8:00 EE5 **541.21** ● Mechanisms underlying the effects of vagal nerve stimulation. A. P. SHAH*; Y. CHUNG; F. R. CARRENO; A. FRAZER. *Univ. of Texas Hlth. Sci. Ctr. At San Antonio.*

9:00 EE6 **541.22** Effects of SSRI and SNRI antidepressant drugs on schedule-induced polydipsia in rats: Evaluation of α2 adrenoceptor antagonism with yohimbine. S. M. MOONEY-LEBER; M. D. BERQUIST, II; A. L. PEHRSON; N. P. PORTER; J. H. PORTER; A. PRUS*. *Northern Michigan Univ., H. Lundbeck A/S, Virginia Commonwealth Univ.*

10:00 EE7 **541.23** Identification of a stress-vulnerable, treatment-resistant, ketamine-sensitive genetic line in the chick anxiety-depression model. S. W. WHITE*; K. J. SUFKA. *Univ. of Mississippi, Univ. of Mississippi, Univ. of Mississippi.*

11:00 EE8 **541.24** Antidepressant effects of resveratrol in an animal model of depression. L. L. HURLEY*; L. AKINFIRESOYE; O. KALEJAIYE; Y. TIZABI. *Howard Univ.*

8:00 EE9 **541.25** Nicoitne blocks alcohol-induced decreases in hippocampal BDNF and synapsin: Implication for smoking-drinking co-morbidity. O. O. KALEJAIYE*; R. E. TAYLOR; Y. TIZABI. *Howard Univ. Col. of Med.*

9:00 EE10 **541.26** ● Sex-specific regulation of the microRNA transcriptome by stress. M. L. PFAU*; G. E. HODES; J. FENG; S. A. GOLDEN; H. M. CATES; D. J. CHRISTOFFEL; M. HESHMATI; H. ALEYASIN; L. SHEN; S. J. RUSSO. *Icahn Sch. of Med. at Mount Sinai.*

10:00 EE11 **541.27** Hypobaric hypoxia induces depression-like behavior in female but not male Sprague Dawley rats. S. KANEKAR*; P. OLSON; O. BOGDANOVA; K. D'ANCI; P. RENSHAW. *Univ. of Utah, Univ. of Utah, Tufts Univ., Salem State Univ.*

11:00 EE12 **541.28** ▲ Dissociable effects of the noncompetitive NMDA antagonists ketamine, phencyclidine (PCP), MK-801, and other glutamatergic ligands in the differential-reinforcement-of-low-rate (DRL) 72 sec task. B. L. JOSEPH*; T. M. HILLHOUSE; F. F. STEELE; J. H. PORTER. *Virginia Commonwealth Univ.*

8:00 EE13 **541.29** The noncompetitive NMDA antagonist ketamine, but not MK-801, produces antidepressant-like effects in rats responding on a differential-reinforcement-of-low-rate (DRL) 72 second operant schedule. J. H. PORTER*; T. M. HILLHOUSE. *Virginia Commonwealth Univ.*

9:00 EE14 **541.30** The role of FGF2-AS in stress and depression-like behavior in rats. E. EREN KOCAK*; K. BASAR; M. YILMAZ; Y. AYHAN; T. DALKARA. *Hacettepe Univ., Hacettepe Univ., Hacettepe Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

542. Mood Disorders: Animal Models III

Theme C: Disorders of the Nervous System

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

8:00 EE15 **542.01** An animal model of recurrent depression: sensitized depression-like behavior when rats are re-exposed to chronic mild stress. J. L. REMUS*; D. JAMISON; J. D. JOHNSON. *Kent State Univ.*

9:00 EE16 **542.02** Phospholipase D - mTOR signaling is compromised in a rat model of depression. P. FENG*; Y. HU; C. HUANG. *Case Western Reserve Univ/Cleveland VA.*

10:00 EE17 **542.03** Tricyclic antidepressant amitriptyline indirectly increases the proliferation of adult dentate gyrus-derived neural precursor cells via inducing FGF2 secretion from astrocytes. S. BOKU*; K. HISAOKA-NAKASHIMA; S. NAKAGAWA; A. KATO; N. KAJITANI; T. INOUE; I. KUSUMI; M. TAKEBAYASHI. *Albert Einstein Col. of Med., Hiroshima Univ., Hokkaido Univ., Natinal Hosp. Organization Kure Med. Ctr.*

11:00 EE18 **542.04** GABAb receptor in the ventral pallidum and its implication in depressive-like behaviors. R. E. CONTRERAS*; M. SKIRZEWSKI; L. BETANCOURT; L. HERNÁNDEZ; P. RADA. *Lab. De Fisiología De La Conducta / Univ. De Los Andes, Lab. de Histología / Univ. De Los Andes.*

8:00 FF1 **542.05** Induction of CaMKIIβ by HDAC inhibitors might be involved in structural plasticity and behavioral responses to chronic stress. T. HOBARA*; S. UCHIDA; H. YAMAGATA; F. HIGUCHI; N. HIGUCHI; T. SHIBATA; K. OTSUKI; Y. WATANABE. *Dept Neurosci, Yamaguchi Univ. Sch. of Med., Yamaguchi Univ. Grad Sch. of Med.*

9:00 FF2 **542.06** Individual differences in pre-stress state predict distinct responses to chronic unpredictable stress in rats. Y. IGUCHI*; S. KOSUGI; Y. MINABE; S. TODA. *Kanazawa Univ. Sch. of Med.*

10:00 FF3 **542.07** ● Toward a spontaneous model of depressive symptoms among cynomolgus and rhesus monkeys in farming conditions. S. CAMUS*; C. ROCHAIS; C. BLOIS-HEULIN; Q. LI; M. HAUSBERGER; E. BEZARD. *Inst. of Neurodegenerative Dis., Univ. de Rennes 1, Motac Neurosci. Ltd, Univ. de Rennes 1.*

11:00 FF4 **542.08** Characterization of the learned helplessness model and effects of P2X7 blockade. N. C. WELTY*; M. MORTON; J. SHELTON; B. SAVALL; M. LETAVIC; A. BHATTACHARYA; G. CHEN; J. R. SHOBLOCK. *Janssen.*

8:00 FF5 **542.09** Global, early, selective and progressive noradrenergic axonal degeneration in somatostatin 2 receptor but not in somatostain 1 receptor knockout mice. C. ADORI*; L. GLUECK; T. YOSHITAKE; J. KEHR; H. TOMAS. *Karolinska Inst. Dept. of Neurosci., Friedrich-Schiller-Universität, Karolinska Inst.*

9:00 FF6 **542.10** ● Individual differences in peripheral inflammatory signaling controls susceptibility to social defeat stress. G. E. HODES*; M. PFAU; S. A. GOLDEN; D. J. CHRISTOFFEL; M. HESHMATI; H. ALEYASIN; M. LEBOEUF; M. MERAD; S. J. RUSSO. *Icahn Sch. of Med. at Mt. Sinai, Icahn Sch. of Med. at Mt. Sinai.*

10:00 FF7 **542.11** The Role of 5-HT4 receptor in hippocampal neurogenesis increased by chronic SSRI treatment. E. SEGI-NISHIDA*; Y. IMOTO; T. KIRA; K. KOBAYASHI. *Kyoto Uni. Phamacutical Sci., Nippon Med. Sch.*

11:00 FF8 **542.12** Epigenetic modulation of hippocampal mGluR5 regulates coping strategies to repetitive stress. Y. YEONG SHIN*; G. KIM; C. KIM; D. KIM. *Yonsei univ. col. of medicine.*

8:00 FF9 **542.13** Next generation sequence analysis of mRNA expression in the prefrontal cortex of mice subjected to chronic unpredictable stress. J. A. AZEVEDO*; C. L. COOKE; J. M. MCKLVEEN; J. P. HERMAN; R. C. THOMPSON. *Univ. of Michigan, Univ. of Michigan, Univ. of Cincinnati, Univ. of Michigan.*

9:00 FF10 **542.14** Comparing chronic exposure to light and agomelatine in the reversal of depressive-like behaviour in a rat model of depression. J. J. DIMATELIS*; D. J. STEIN; V. A. RUSSELL. *Univ. of Cape Town, Univ. of Cape Town, Univ. of Cape Town.*

10:00 GG1 **542.15** Involvement of homer1a in resilience to chronic mild stress. Y. SHUI*; R. YAMAMOTO; N. KATO. *China-Japan Friendship Hosp., Kanazawa Med. Univ.*

11:00 GG2 **542.16** ● Nogo-Receptor-1 limits behavioral and anatomical plasticity associated with fear learning and extinction. S. M. BHAGAT*; S. M. STRITTMATTER. *Yale Univ., Yale Univ.*

8:00 GG3 **542.17** Fluoxetine reverses disrupted maternal care but not depressive-like behavior after chronic corticosterone exposure. J. L. WORKMAN*; A. R. GOBINATH; N. F. KITAY; C. CHOW; S. BRUMMELTE; L. A. M. GALEA. *Univ. of British Columbia, Wayne State Univ.*

9:00 GG4 **542.18** The role of spontaneous neurotransmission in fast-acting antidepressant response. E. S. GIDEONS*; E. T. KAVALALI; L. M. MONTEGGIA. *UT-Southwestern Med. Ctr.*

10:00 GG5 **542.19** Anxiety- and depressive-like behavior in an experimental model of perimenopause. K. V. WEISSHEIMER*; D. E. RIBEIRO; S. R. L. JOCA; J. A. ANSELMO-FRANCI. *Univ. of Sao Paulo - Dent. Sch., Univ. of Sao Paulo - Sch. of Med., Univ. of Sao Paulo - Sch. of Pharmaceut. Sci.*

11:00 GG6 **542.20** Effects of testosterone on depressive-like behavior and hippocampal gene expression in male rats. S. K. SALAND*; N. M. CARRIER; F. DUCLOT; M. KABBAJ. *Florida State Univ., Florida State Univ., Univ. of Texas Hlth. Sci. Ctr.*

8:00 GG7 **542.21** Comparison of antidepressive effects following cortical versus auricular electroconvulsive stimulation in rats. W. THEILMANN; C. BRANDT; M. RHEIN; H. FRIELING; S. BLEICH; W. LOSCHER*. *Univ. of Vet. Med. Hannover, Ctr. for Systems Neurosci., Hannover Med. Sch.*

9:00 GG8 **542.22** Adaptive fitness; early life adversity improves adult stress coping in heterozygous serotonin transporter knockout rats. R. VAN DER DOELEN*; T. KOZICZ; J. HOMBERG. *Radboud Univ. Nijmegen, Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr.*

10:00 GG9 **542.23** ● Clinical doses of citalopram reduce immobility time in the forced swimming test in Wistar rats with low immobility, while reboxetine or amitriptyline modulates all female rats. Citalopram (10 mg/kg) lacks of effect in all female rats. J. PINEDA*; A. FLORES-SERRANO; F. J. HEREDIA-LOPEZ; F. J. ALVAREZ-CERVERA; J. L. GONGORA-ALFARO. *Univ. Autonoma de Yucatán.*

11:00 GG10 **542.24** The change of astrocytic proteins in the depressive-like mouse brain. H. KIM*; H. G. S. S. HYUN JOON KIM. *Gyeongsang Natl. Univ. Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 GG11 **542.25** Female H/Rouen mice selectively bred for depressive-like behavior display enhanced vulnerability for cocaine reinforcing effects. V. RAPPENEAU*; A. MOREL; P. LUPPI; J. VAUGEOIS; M. EL YACOUBI; A. BEROD. *Ctr. De Recherche En Neurosciences De Lyon, Univ. de Rouen, EA 4651-ABTE /ToxEMAC, U.F.R. Médecine & Pharmacie.*

9:00 GG12 **542.26** ▲ Prolonged depressive-like behavior in mice exposed to a bolus injection of methamphetamine. C. D. SILVA; I. PITA; A. F. NEVES; A. I. DIAS; H. J. FREITAS; S. M. MENDES; S. D. VIANA; P. A. DE OLIVEIRA; R. A. CUNHA; C. A. FONTES RIBEIRO; R. D. PREDIGER; F. C. PEREIRA*. *IBILI/Fac Med, Coimbra Univ., Univ. Federal de Santa Catarina, CNC-Center for Neurosci. and Cell Biol.*

10:00 GG13 **542.27** Clomipramine relieves chronic social defeat induced depression-like symptoms in male tree shrews. Y. X. YANG*, SR; W. JING. *Kunming Inst. of Zoology.*

11:00 GG14 **542.28** The effect of maternal care on depressive-like behaviors in female offspring. A. BORROW*; M. STOLOW; N. M. CAMERON. *Binghamton Univ.*

8:00 GG15 **542.29** Sex differences in topographically-specific effects of social stress on ventral tegmental area dopaminergic neurons. G. GREENBERG*; M. Q. STEINMAN; K. R. SCROGGINS; I. E. DOIG; D. G. ESQUIVEL; B. C. TRAINOR. *UC Davis Dept. of Psychology, UC Davis Dept. of Psychology.*

9:00 GG16 **542.30** Angiotensin-(1-7) central administration induces anxiolytic-like effects in elevated plus maze and decreased oxidative stress in the amygdala. C. ALIN STELIAN*; W. BILD. *Alexandru Ioan Cuza Univ. Iasi, UMF Iasi.*

POSTER

543. Behavioral Effects of Stress

Theme C: Disorders of the Nervous System

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

8:00 GG17 **543.01** Single prolonged stress: Validity of translating PTSD model into mice. A. L. EAGLE*; K. MULO; R. J. KOHLER; A. CONTI; S. A. PERRINE. *Wayne State Univ. Sch. of Med., Wayne State Univ. Sch. of Med., John D. Dingell VA Med. Ctr.*

9:00 GG18 **543.02** The rewarding effects of exercise do not depend on wheel running controllability. J. J. HERRERA*; P. J. CLARK; S. M. ENGEL; B. N. GREENWOOD; M. FLESHNER. *Univ. of Colorado, Univ. of Colorado.*

10:00 HH1 **543.03** The impact of voluntary exercise on stress-induced disruptions in diurnal rhythms of sleep and physiology. R. S. THOMPSON*; B. N. GREENWOOD; M. FLESHNER. *Univ. Colorado Boul, Univ. of Colorado at Boulder.*

11:00 HH2 **543.04** Plasma testosterone levels and the development of posttraumatic stress symptoms after military deployment: A prospective cohort study. A. REIJNEN; E. GEUZE*; E. VERMETTEN. *Military Mental Hlth/UMC.*

8:00 HH3 **543.05** Identifying mechanisms by which exercise prevents inescapable stress induced instrumental learning deficits. P. J. CLARK*; J. AMAT; P. R. GHASEM; S. O. MCCONNELL; S. F. MAIER; B. N. GREENWOOD; M. FLESHNER. *Univ. of Colorado-Boulder, Univ. of Colorado-Boulder, Univ. of Colorado-Boulder.*

9:00 HH4 **543.06** Reduced hypothalamic NOS activity and CB1 mRNA cannabinoid receptors are related to behavioral impairments in stressed rats. B. BURDET; D. G. MAUR; A. DE LAURENTIIS; V. RETTORI; M. ZORRILLA ZUBILETE*. *CEFYBO-CONICET, Depth. Pharmacology, Sch. of Medicine, U.B.A.*

10:00 HH5 **543.07** Central administration of corticotropin-releasing factor receptor antagonist, alpha-helical CRF (9-41), does not alter stress-induced enhancement of conditioned fear response in rats. R. RYOKE*; K. YAMADA; Y. ICHITANI. *Univ. of Tsukuba.*

11:00 HH6 **543.08** Voluntary exercise during fear extinction reduces fear renewal: Role for activation of reward circuitry during extinction. C. BOUCHET*; A. MIKA; K. G. SPENCE; J. E. HELLWINKEL; S. CAMPEAU; H. E. W. DAY; M. FLESHNER; B. N. GREENWOOD. *Univ. of Colorado, Univ. of Colorado, Univ. of Colorado.*

8:00 HH7 **543.09** Modeling individual differences in behavioral stress responses to uncover neurobiological mechanisms for resiliency to PTSD. M. A. WILSON*; A. C. SHARKO; K. F. KAIGLER; A. HAND; A. KERSNOWSKI; M. P. KELLY; J. R. FADEL. *Univ. South Carolina, Sch. Med.*

9:00 HH8 **543.10** Evaluating the stress-reducing potential of coffee volatiles in socially isolated mice using stress-induced hyperthermia and open-field tests. Y. HAYASHI*; S. SOGABE; M. SUZUKI; J. TANAKA. *Notre Dame Seishin Univ., Naruto Univ. of Educ.*

10:00 HH9 **543.11** ▲ Wheel running produces widespread structural alterations within striatal and limbic regions involved in stress. P. R. GHASEM*; A. MIKA; E. A. SISNEROS; M. A. KEAG; S. M. ENGEL; P. J. CLARK; B. N. GREENWOOD; M. FLESHNER. *Univ. of Colorado At Boulder, Univ. of Colorado at Boulder.*

11:00 HH10 **543.12** Impact of chronic variable versus acute stress experience on conditioned fear memory and sensitized acoustic startle responses in rats. S.; L. VOLLMER; C. DOULGAS; M. WEINERT; J. RUSH; R. SAH. *Univ. of Cincinnati, VA Med. Ctr., Univ. of Cincinnati.*

8:00 HH11 **543.13** Role of kynurenic acid in regulating neurochemical and behavioral responses to stress. J. I. KOENIG*; H. WU; T. FUKUWATARI; R. SCHWARCZ. *Univ. Maryland Sch. Med., The Univ. of Shiga Prefecture.*

9:00 HH12 **543.14** Stress-induced changes in 5-HT receptor-mediated neuromodulation of granule cell inhibition in a rat model of PTSD. D. GRUBER; K. E. GILLING*; A. ALBRECHT; O. STORK; G. RICHTER-LEVIN; U. HEINEMANN; J. BEHR. *Charite Universitätsmedizin Berlin, Univ. of Haifa, Otto-von-Guericke Univ. of Magdeburg, Ruppiner Kliniken.*

10:00 HH13 **543.15** Aggression in social contests in veterans with post-traumatic stress disorder. L. ZHU*; C. ROSOFF; K. MCCURRY; C. B. FRUEH; P. H. CHIU; B. KING-CASAS. *The Virginia Tech. Carilion Res. Inst., Salem Veterans Affairs Med. Ctr., Univ. of Hawaii, Virginia Tech.*

11:00 HH14 **543.16** The persistence of exercise-induced stress resistance depends on the developmental stage during which exercise is initiated. A. MIKA*; C. A. BOUCHET; K. G. SPENCE; B. N. GREENWOOD; M. FLESHNER. *Univ. of Colorado, Boulder.*

8:00 HH15 **543.17** Behavioral outcome of chronic social defeat in four inbred mouse strains. E. SOKOLOWSKA; S. KÄNGSEP; Z. MISIEWICZ; V. VOIKAR; I. HOVATTA*. *Univ. Helsinki, Univ. Helsinki, Natl. Inst. for Hlth. and Welfare.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 HH16 **543.18** Chronic quinpirole administration in rats reduces exploratory behavior and increases water contrafreeloading while preserving responsiveness to changing contingencies. M. J. FREDERICK*; S. E. COCUZZO; M. C. HILL. *Hamilton Col.*

10:00 HH17 **543.19** Amygdala modulates the behavioral and hormonal consequences of the exposure to fearful reminders in a mice model of PTSD. R. R. SOUZA*; L. M. SILVEIRA; A. CANTO-DESOUZA. *Univ. Federal De São Carlos, Univ. Federal de São Carlos, Univ. Federal de São Carlos.*

11:00 HH18 **543.20** The role of sleep deprivation in the acquisition of PTSD in the rat. W. M. VANDERHEYDEN*; G. POE. *Univ. of Michigan.*

8:00 II1 **543.21** ● Transient forebrain-specific CRF overexpression during early life increases vulnerability for PTSD-like symptoms in adulthood. M. TOTH*; M. GROSS; I. M. MANSUY; E. MERLO-PICH; R. ADAMEC; V. B. RISBROUGH. *UCSD, VA, Swiss Federal Inst. of Technol., GlaxoSmithKline Medicines Res. Ctr., Mem. Univ.*

9:00 II2 **543.22** Preexisting differences in the expression of plasticity-related immediate-early genes in the medial prefrontal cortex in a rat model of PTSD. K. M. BUNTING; G. PEREZ; R. I. NALLOOR; A. I. VAZDARJANOVA*. *VA MEDICAL CENTER, Georgia Regents Univ., Georgia Regents Univ.*

10:00 II3 **543.23** Sex differences in an animal model of PTSD. M. MIKOSZ*; K. ROKOSZ; W. SZADZINSKA; K. KONDRAKIEWICZ; E. KNAPSKA. *Nencki Inst. of Exptl. Biol. PAS, Nencki Inst. of Exptl. Biol. PAS.*

11:00 II4 **543.24** Effects of heavy alcohol use on frontal cortex activity and behavior during emotional processing in veterans with PTSD. G. L. FORSTER*; D. OLSON; L. A. BAUGH; J. M. HANSEN; R. GAHER; J. SIMONS; V. MAGNOTTA. *Univ. South Dakota, Univ. of Iowa.*

8:00 II5 **543.25** Pharmacological and deep brain stimulation treatments in rodent models of post-traumatic stress disorder. E. JANEZIC; R. LAHOOD; D. STIDD; J. LANGEVIN; E. D. FRENCH*; J. FELLOUS. *Univ. of Arizona, Univ. of Arizona, Southern Arizona VA Hlth. Care Syst., Univ. of Arizona.*

9:00 II6 **543.26** Sexual Conspecific Aggressive Response (SCAR): A model for sexual abuse and trauma in women during adolescence. K. E. TOBON*; G. DIFEO; M. CHANG; T. J. SHORS. *Rutgers Univ., RWJMS.*

10:00 II7 **543.27** Effect of pregabalin in the extinction recall of fear conditioned exacerbated by neonatal maternal separation with early weaning in C57BL6/N mice. S. M. MARCELLO*. *Inst. Di Farmacologia Traslazionale CNR UOS Pula (CA).*

11:00 II8 **543.28** Noradrenergic fibers in the cerebellar cortex of adolescent female rats become more varicose following 7 days of voluntary wheel running. K. TATEYAMA*; H. NEDELESCU; T. CHOWDHURY; G. WABLE; G. ARBUTHNOTT; C. AOKI. *Columbia Univ., New York Univ., Okinawa Inst. of Sci. and Technol. Grad. Univ., Univ. of Antwerp.*

8:00 II9 **543.29** ▲ Use of a modified Trier Social Stress Test to assess an undergraduate meditation course. A. C. HEUERMAN; G. N. CHAVEZ; M. C. GREEN; M. HUERTA; J. OV; P. L. OVERTON-HARRIS; F. GRACE; C. M. KO; L. E. OLSON*. *Univ. of Redlands, Univ. of Redlands, Univ. of Redlands.*

9:00 II10 **543.30** Sex differences in mu-opioid receptor regulation of reversal learning in the California mouse (Peromyscus californicus). S. A. LAREDO*; M. Q. STEINMAN; C. F. ROBLES; E. FERRER; G. D. GREENBERG; A. LAMAN-MAHARG; B. C. TRAINOR. *Univ. of California Davis, Univ. of California Davis, Univ. of California Davis, Univ. of California Davis, Univ. of California Davis.*

POSTER

544. Alcohol: Tolerance, Dependence, and Withdrawal

Theme C: Disorders of the Nervous System

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

8:00 II11 **544.01** P2X7 receptor-driven neuroinflammation plays a role in causing alcohol related brain damage. L. ASATRYAN*; S. KHOJA; K. RODGERS; H. TSUKAMOTO; R. L. ALKANA; D. L. DAVIES. *USC, USC.*

9:00 II12 **544.02** Epigenetic modifications in frontal cortex of HS/Npt mice following chronic intermittent exposure to ethanol. G. GORINI*; S. BLOCH; J. C. CRABBE; R. A. HARRIS; I. PONOMAREV. *The Univ. of Texas at Austin, Oregon Hlth. & Sci. Univ.*

10:00 II13 **544.03** Changes in the expression of protein phosphatase 2A in ethanol relapse. K. MIZUO*; R. KATADA; S. OKAZAKI; S. WATANABE. *Sapporo Med. Univ.*

11:00 II14 **544.04** Neurotoxicity and synaptic transmission alterations in immature and mature rat organotypic hippocampal slice cultures exposed to ethanol. D. PELLEGRINI-GIAMPIETRO*; E. GERACE; E. LANDUCCI; T. SCARTABELLI; F. MORONI; G. MANNAIONI. *Univ. of Florence, Univ. of Florence.*

8:00 II15 **544.05** Mice selectively bred for High Drinking in the Dark exhibit reduced sensitivity to the ataxic and hypnotic effects of ethanol but do not differ in acute functional tolerance relative to progenitor HS/Npt mice. K. A. CORDERO*; B. M. FRITZ; A. M. BARKLEY-LEVENSON; P. METTEN; J. C. CRABBE; S. L. BOEHM, II. *Portland Alcohol Res. Center, Oregon Hlth. & Sci. University, and the VA, Indiana Alcohol Res. Center, Indiana University-Purdue Univ. Indianapolis.*

9:00 II16 **544.06** Evaluation of TLR4 inhibitor T5342126 as a potential candidate drug for treatment of alcoholism. M. BAJO*; A. J. ROBERTS; H. YIN; L. N. CATES; T. NADAV; K. CHENG; S. COULUP; S. MADAMBA; G. R. SIGGINS; M. ROBERTO. *Scripps Res. Inst., Scripps Res. Inst., Univ. of Colorado Boulder.*

10:00 II17 **544.07** Ethosuximide, a T-type calcium channel antagonist, as a potential treatment for alcohol dependence and withdrawal. M. RIEGLE*; E. CARTER; J. WEINER; D. GODWIN. *Wake Forest Hlth. Sci., Wake Forest Hlth. Sci.*

11:00 II18 **544.08** Ethanol drinking in ethanol dependent and non-dependent mice: Role of dopamine and glutamate neurotransmission in the dorsolateral striatum. W. C. GRIFFIN*, III; H. L. HAUN; C. E. MAY; C. HAZELBAKER; V. RAMACHANDRA; C. B. HAWKINS; H. C. BECKER. *Med. Univ. South Carolina.*

8:00 JJ1 **544.09** Cortical glutamate and NMDA receptors during withdrawal from intermittent alcohol. L. S. HWA*; A. SHIMAMOTO; A. J. NATHANSON; J. TAYEH; J. F. DEBOLD; K. A. MICZEK. *Tufts Univ., Tufts Univ.*

9:00 JJ2 **544.10** KOR blockade attenuates escalated alcohol self-administration in alcohol dependent rats: Dissociation between the central amygdala and nucleus accumbens. J. KISSLER*; A. WILLIAMS; B. WALKER. *Washington State Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 JJ3 **544.11** Influence of kappa opioid receptor activation on forced swim behavior in C57BL/6J mice with a history of chronic intermittent ethanol exposure. R. I. ANDERSON*; L. L. SNYDER; R. L. MCCANN; J. L. HOPKINS; M. F. LOPEZ; H. C. BECKER. *Med. Univ. of South Carolina, Ralph H. Johnson Veterans Admin. Med. Ctr.*

11:00 JJ4 **544.12** ▲ Kappa opioid regulation of depressive-like behavior and reward seeking during acute and protracted withdrawal from ethanol. S. K. JARMAN; A. M. HANEY; G. R. VALDEZ*. *Grand Valley State Univ.*

8:00 JJ5 **544.13** Drinking status, subjective response, and craving for alcohol: A translational examination of Koob's allostatic model in humans. S. BUJARSKI*; J. JENTSCH; L. A. RAY. *UCLA.*

9:00 JJ6 **544.14** Increased emission of rat ultrasonic vocalization (USV) over the course of alcohol dependence. C. L. BUCK*; J. E. SCHLOSBURG; L. J. LIPPERT; G. F. KOOB; L. F. VENDRUSCOLO. *UCSD, The Scripps Res. Inst.*

10:00 JJ7 **544.15** Voluntary ethanol intake in ethanol-dependent and nondependent NR2B conditional KO mice. M. F. LOPEZ*; R. L. MCCANN; J. L. HOPKINS; M. P. OVERSTREET; E. DELPIRE; P. J. MULHOLLAND; H. C. BECKER. *Med. Univ. of South Carolina, Vanderbilt Univ. Med. Ctr.*

11:00 JJ8 **544.16** Ceftriaxone-induced upregulation of GLT-1 isoforms and xCT attenuates in part relapse-like ethanol-drinking behavior in male alcohol-preferring (P) rats. H. ALHADDAD; Y. SARI*. *Univ. of Toledo, Col. of Pharm.*

8:00 JJ9 **544.17** Differential patterns of expression of Neuropeptide Y throughout withdrawal in outbreed Swiss mice classified as susceptible or resistant to locomotor sensitization induced by ethanol. L. S. COELHO*; R. DE PAULI; N. F. CORREA-NETTO; J. G. SANTOS-JUNIOR. *FCMSCSP, Federal Univ. of São Paulo, FCMSCSP.*

9:00 JJ10 **544.18** Cannabinoid receptor 1 activation selectively inhibits ethanol withdrawal induced potentiation of NMDA neurotoxicity. D. J. LIPUT*; M. A. PRENDERGAST; K. NIXON. *Univ. of Kentucky.*

10:00 JJ11 **544.19** The role of beta1 adrenoceptors in the development of alcohol dependence. P. M. KLENOWSKI*; J. HOLGATE; M. BELLINGHAM; P. MOLENAAR; S. BARTLETT. *Queensland Univ. of Technol., Univ. of Queensland.*

11:00 JJ12 **544.20** MeCP2 regulates ethanol sensitivity and intake. J. CHEN*; V. REPUNTE-CANONIGO; C. LEFEBVRE; T. KAWAMURA; M. KREIFELDT; O. BASSON; A. ROBERTS; P. P. SANNA. *The Scripps Res. Inst., Columbia Univ.*

8:00 JJ13 **544.21** Ethanol-induced epigenetic modifications mediate behavioral plasticity. G. L. ENGEL*; B. M. ZIMAN; K. R. KAUN; S. MARELLA; E. C. KONG; F. W. WOLF. *Univ. of California, Merced, Univ. of California, San Francisco, Ernest Gallo Clin. and Res. Ctr.*

9:00 JJ14 **544.22** Cell type-specific alterations in tonic GABAA receptor transmission in the central amygdala of CRF receptor-1 reporter mice following chronic ethanol exposure. M. A. HERMAN*; C. CONTET; M. ROBERTO. *The Scripps Res. Inst.*

10:00 JJ15 **544.23** Distinct metabolic alterations in reward related brain areas of rats with a history of alcohol dependence. M. MEINHARDT*; D. C. SÉVIN; M. L. KLEE; S. DIETER; U. SAUER; W. H. SOMMER. *Central Inst. of Mental Hlth., ETH Zürich.*

11:00 JJ16 **544.24** Profound and selective decrease of dendritic spines in the nucleus accumbens of ethanol dependent rats. S. SPIGA*; G. MULAS; G. MUGGIRONI; G. FOIS; C. CANNIZZARO; M. DIANA; M. DIANA. *Univ. Cagliari, Univ. of Sassari, Univ. of Palermo, Univ. of Sassari.*

8:00 JJ17 **544.25** Homeostatic changes in NMDA receptors and Kv4.2 channels following chronic ethanol exposure is accompanied by alterations in FMRP phosphorylation. K. SPENCER*; P. MULHOLLAND; L. CHANDLER. *Med. Univ. of South Carolina.*

9:00 JJ18 **544.26** ● BK channel beta1 and beta4 subunits play differential roles in the physical and motivational effects of ethanol withdrawal. C. CONTET*; D. LE; M. KREIFELDT; S. N. TREISTMAN; A. J. ROBERTS; G. F. KOOB. *Scripps Resch Inst., Univ. of Puerto Rico.*

10:00 KK1 **544.27** Differential effects of ghrelin antagonists on alcohol drinking following chronic intermittent ethanol vapor exposure in mice. J. L. GOMEZ*; C. SNELLING; D. A. FINN; A. E. RYABININ. *Oregon Hlth. & Sci. Univ.*

11:00 KK2 **544.28** Dopamine system adaptations in alcohol abstinence: Evidence from humans and rats for a hyperdopaminergic state. N. HIRTH*; M. W. MEINHARDT; L. BROCCOLI; S. PERREAU-LENZ; S. UHRIG; R. RIMONDINI; C. HARPER; M. HEILIG; R. SPANAGEL; W. H. SOMMER; A. C. HANSSON. *Central Inst. of Mental Hlth., Univ. of Bologna, The Univ. of Sydney, Natl. Inst. on Alcohol Abuse and Alcoholism (NIAAA).*

8:00 KK3 **544.29** ● Pharmacodynamic interactions of a solid formulation of sodium oxybate and alcohol in healthy volunteers. N. PROSS*; N. FAUCHOUX; H. HADJDUCHOVA; C. DENOT; A. DUFOUR; A. PATAT; P. VIVET. *BIOTRIAL Neurosci., Biotrial, D&A Pharma, Univ. of Strasbourg.*

9:00 KK4 **544.30** Glial regulation of alcohol behavioral responses in *Drosophila.* S. PARKHURST*; A. V. LEGENDRE; E. C. KONG; F. W. WOLF. *Univ. of California, Merced, Univ. of California, Merced, Ernest Gallo Clin. and Res. Ctr.*

POSTER

545. Nicotine: Reinforcement, Seeking, and Reinstatement

Theme C: Disorders of the Nervous System

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

8:00 KK5 **545.01** ● Nicotine aerosol delivery to rodents in a self-administration model mimics nicotine intake during cigarette smoking and can be used to screen smoking cessation pharmacotherapies. X. M. XIE; L. YANG; C. PASCUAL; B. ZOU; A. MALIK; L. TOLL; N. ZAVERI; Y. ZHU; X. M. SHAO*. *AfaSci, Inc, Torrey Pines Inst. for Mol. Studies, Astraea Therapeutics, LLC CA, Univerisity of California Los Angeles, David Geffen Sch. Med. at UCLA.*

9:00 KK6 **545.02** Hypocretin modulation of nicotine-mediated alterations in brain reward function are dependent on required level of effort. C. D. FOWLER*; P. J. KENNY. *The Scripps Res. Inst.*

10:00 KK7 **545.03** A hypocretin-regulated "value attribution" circuit in dorsal thalamus controls compulsive nicotine use. J. A. HOLLANDER*; B. R. LEE; L. M. TUESTA; E. KOESEMA; P. J. KENNY. *The Scripps Res. Inst.*

11:00 KK8 **545.04** Brain glucagon-like peptide-1 regulates the reinforcing properties of nicotine. L. M. TUESTA*; C. D. FOWLER; B. R. LEE; P. BALI; Q. LU; P. J. KENNY. *The Scripps Res. Inst.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 LL1 **545.05** Inactivation of the central nucleus of the amygdala reduces the stress-induced amplification of relapse to nicotine-taking. G. YU*; Z. HUANG; H. CHEN; B. M. SHARP. *Univ. of Tennessee Hlth. Sci. Ctr.*

9:00 LL2 **545.06** Histone deacetylase inhibition amplifies reacquisition of nicotine SA and contributes to the stress-induced amplification of relapse to nicotine-taking. G. YU; Z. HUANG; H. CHEN; B. M. SHARP*. *Univ. Tennessee Hlth. Sci. Ctr.*

10:00 LL3 **545.07** Interoceptive conditioning with the nicotine stimulus slowed by lesions to **POSTER**ior but not anterior dorsomedial striatum. S. CHARNTIKOV*; S. PITTENGER; K. VESTAKIS; R. A. BEVINS. Univ. of Nebraska-Lincoln.

11:00 LL4 **545.08** The effect of switching pharmacological intervention on nicotine-evoked conditioned responding in extinction. S. T. PITTENGER*; L. C. ZEPLIN; R. A. BEVINS. *Univ. of Nebraska-Lincoln.*

8:00 LL5 **545.09** Cooling sensation of menthol is a conditioned reinforcer for nicotine. H. CHEN*; T. WANG; B. WANG. *Univ. Tennessee Hlth. Sci. Ctr.*

9:00 LL6 **545.10** Carbon Disulfide mediates socially-acquired nicotine self-administration. S. GONG*; T. WANG; H. CHEN. *Univ. of Tennessee Hlth. Sci. Ctr.*

10:00 LL7 **545.11** Acute administration of the α4β2* nAChR agonist ABT-089 and the α7 nAChR agonist ABT-107 attenuates nicotine seeking in rats. B. A. KIMMEY*; A. C. ARREOLA; A. M. LEE; H. D. SCHMIDT. *Univ. of Pennsylvania.*

11:00 LL8 **545.12** Repeated administration of an acetylcholinesterase inhibitor attenuates nicotine taking in rats. A. C. ARREOLA*; B. A. KIMMEY; L. E. RUPPRECHT; A. M. LEE; M. R. HAYES; H. D. SCHMIDT. *Univ. of Pennsylvania.*

8:00 LL9 **545.13** Juvenile play experience attenuates the initial level of nicotine consumption. B. T. HIMMLER*; E. SNOW; A. MCMICKLE; S. M. PELLIS; B. KOLB; K. D. BIONDOLILLO. *Univ. of Lethbridge, Arkansas State Univ.*

9:00 LL10 **545.14** Loss of Cd81 function increases nicotine preference, but decreases depression- and anxiety-like behavior in mice. R. L. MURPHY; L. L. LOCKLEAR; M. H. NIAZ; R. WALTON; K. J. FRYXELL*. *George Mason Univ.*

10:00 LL11 **545.15** Nicotine enhances conditioned approach behavior measured by a pavlovian autoshaping procedure and responding for conditioned reinforcement. E. G. GUY*; P. J. FLETCHER. *Univ. of Toronto, Ctr. for Addiction and Mental Hlth.*

11:00 LL12 **545.16** Enhanced nicotine reward in a mouse model of the P129T FAAH gene polymorphism. L. A. NATIVIDAD*; I. Y. POLIS; D. G. STOUFFER; B. F. CRAVATT; L. H. PARSONS. *The Scripps Res. Inst., The Scripps Res. Inst.*

8:00 MM1 **545.17** Neuropathic pain alters nicotine self-administration in rats. A. CIPPITELLI; J. SCHOCH; D. MERCATELLI; J. WU; K. GAIOLINI; L. TOLL*. *Torrey Pines Inst. For Mol. Studies.*

9:00 MM2 **545.18** Stress and immediacy effects on reward anticipation. L. COSAND*; D. CLEWETT; K. VEKARIA; K. REYES; X. CORDOVA; J. MONTEROSSO. *Pomona Col., USC.*

10:00 MM3 **545.19** Enhanced rewarding effects of nicotine in diabetic rats. J. A. PIPKIN*; J. JUARDO; L. NATIVIDAD; L. CARCOBA; A. NAZARIAN; L. O'DELL. *Univ. of Texas at El Paso, Western Univ. of Hlth. Sci.*

11:00 MM4 **545.20** Nine generations of selection for high nicotine intake in outbred sprague dawley rats. T. NESIL*; L. KANIT; S. POGUN; M. D. LI. *Univ. of Virginia, Ege Univ.*

8:00 MM5 **545.21** Blockade of nicotine and cannabinoid reward and reinstatement by a cannabinoid CB1-receptor inverse agonist/antagonist and a CB1-receptor neutral antagonist in squirrel monkeys. S. R. GOLDBERG; G. H. REDHI; A. MAKRIYANNIS*; J. BERGMAN; Z. JUSTINOVA. *NIDA, IRP, NIH, DHHS, Northeastern Univ., McLean Hospital, Harvard Med. Sch.*

9:00 MM6 **545.22** Behavioral effects of cannabinoid-1 receptor agonist in the bed nucleus of the stria terminalis depends on the stage of voluntary nicotine self-administration in rats. S. CAILLE*; M. CADOR; F. GEORGES; A. REISIGER. *CNRS UMR 5287, CNRS UMR 5297.*

10:00 MM7 **545.23** ● Predictors of drug-seeking behavior in rodent reinstatement models of relapse. S. M. GOEBEL-GOODY*; E. DUNN-SIMS; D. B. HORTON; A. ROSADO; A. FOOTE; C. TYSZKIEWICZ; J. K. DASILVA; N. NAWREEN; A. N. MEAD. *Pfizer Inc.*

11:00 MM8 **545.24** Attenuating combined cue and prime-induced reinstatement of nicotine-seeking using the novel D3-receptor antagonist PF-04363467. E. R. DUNN-SIMS*; A. SAWANT-BASAK; M. VANASE-FRAWLEY; A. ROSADO; C. STEPPAN; N. STRATMAN; C. TYSZKIEWICZ; T. WAGER; A. MEAD. *Pfizer Inc, Pfizer.*

8:00 MM9 **545.25** D1 dopamine antagonist treatment with SCH 23390 to decrease nicotine self-administration in rats. S. SLADE; C. WELLS; R. D. SCHWARTZ-BLOOM*; A. H. REZVANI; J. E. ROSE; E. D. LEVIN. *Duke Univ. Med. Ctr.*

9:00 MM10 **545.26** ● The α4β2 nicotinic desensitizing agent VMY 2-109 significantly decreases nicotine self-administration in rats. E. D. LEVIN*; S. SLADE; C. WELLS; S. A. BRIGGS; G. ZHANG; A. H. REZVANI; Y. XIAO; K. J. KELLAR; V. M. YENUGONDA; M. PAIGE; M. BROWN. *Duke Univ. Med. Ctr., Duke Univ., Georgetown Univ.*

10:00 NN1 **545.27** Effects of methamphetamine and nicotine on the habituation of reinforcing effectiveness of sensory stimuli. D. R. LLOYD*; J. B. RICHARDS. *Res. Inst. On Addictions.*

11:00 NN2 **545.28** Adolescent methylphenidate exposure increases the reinforcement enhancing effects of nicotine. D. PETERSON*; A. B. SHEPPARD; M. I. PALMATIER; R. BROWN. *East Tennessee State Univ.*

8:00 NN3 **545.29** Nicotine exposure during acquisition increases the motivational valence of non-drug reinforcers. A. B. SHEPPARD; R. M. FLOYD; Z. DIETZ; M. I. PALMATIER*. *East Tennessee State Univ., Kansas State Univ.*

9:00 NN4 **545.30** Nicotine enhances the rewarding properties of sucrose. R. SCHASSBURGER*; L. E. RUPPRECHT; T. T. SMITH; D. M. BUFFALARI; E. THIELS; E. C. DONNY; A. F. SVED. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

546. Cocaine: Neural Mechanisms of Addiction IV

Theme C: Disorders of the Nervous System

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

8:00 NN5 **546.01** Preferences for cocaine and food rewards: Neurochemical profiles in the nucleus accumbens distinguish cocaine and pellet preferring rats. A. N. PERRY*; C. WESTENBROEK; L. JAGANNATHAN; J. B. BECKER. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

9:00 NN6 **546.02** Cocaine affects acoustic startle in concert with estrus cycle stages. L. B. MALAVE*; P. A. BRODERICK. *Sophie Davis Sch. CCNY, CUNY Grad. Ctr., Ctr. for Advanced Technol. (CAT) CUNY, NYU Langone Med. Ctr.*

10:00 NN7 **546.03** SIRT1 and MAOA regulation in cocaine excited delirium. S. GARAMSZEGI*; L. DUQUE; X. XIE; N. ADI; D. C. MASH. *Univ. of Miami.*

11:00 NN8 **546.04** Glia-derived glutamate differentially modulates cocaine-taking and cocaine-seeking behavior in rats. Z. XI*; H. YANG; X. LI; G. BI; H. ZHANG. *NIDA, IRP.*

8:00 NN9 **546.05** Thalamic connectivity with independent functional components of cognitive control distinguishes cocaine addicts from healthy controls. C. R. LI*; S. ZHANG; S. HU. *Yale Univ.*

9:00 NN10 **546.06** Tracking changes of medium spiny projection neurons in the dorsolateral striatum during chronic cocaine self-administration. K. COFFEY*; D. J. BARKER; S. MA; J. KULIK; M. O. WEST. *Rutgers Univ.*

10:00 NN11 **546.07** Distinct roles of PKC signaling at direct and indirect pathway medium spiny neurons during reinstatement of cocaine-seeking. P. I. ORTINSKI*; L. A. BRIAND; C. PIERCE; H. D. SCHMIDT. *Univ. of Pennsylvania.*

11:00 NN12 **546.08** Corticostriatal regulation of glutamate homeostasis by astrocytes in the nucleus accumbens: Effects of pacap on cystine-glutamate exchange by system x_c^- in the nucleus accumbens. L. KONG*; A. MADAYAG; J. M. RESCH; S. CHOI; J. R. MANTSCH; D. A. BAKER. *Marquette Univ., Univ. of North Carolina Sch. of Med., Marquette Univ.*

8:00 NN13 **546.09** Chronic non-contingent cocaine alters behavioral measures of urgency in a frustrative reward-omission test. A. BARKER*; G. V. REBEC. *Indiana Univ.*

9:00 NN14 **546.10** Intracellular mechanisms associated with cocaine induced Conditioned Place Preference (CPP). S. K. NYGARD*; A. KLAMBATSEN; R. HAZIM; B. BALOUCH; S. N. CHOWDHURY; V. QUINONES-JENAB; S. JENAB. *Hunter College, CUNY, The CUNY Grad. Sch. and Univ. Ctr.*

10:00 NN15 **546.11** ● The role of N-methyl-D-aspartate receptor co-agonists in cocaine-induced conditioned place preference and locomotor sensitization: Implications for comorbid schizophrenia and substance abuse. M. D. PUHL*; A. J. BECHTHOLT; J. T. COYLE. *Harvard Med. School, McLean Hosp.*

11:00 NN16 **546.12** Activity-regulated cytoskeletal protein expression is decreased in the dorsomedial striatum of relapse vulnerable animals: Association with miR-221 and miR-431 expression. R. K. QUINN*; A. L. BROWN; E. M. LEVI; B. J. GOLDIE; D. W. SMITH; M. J. CAIRNS; C. V. DAYAS. *Univ. of Newcastle.*

8:00 NN17 **546.13** How does the brain "put on the brakes" in addiction? Modeling inhibition of a pre-potent response to affect-positive stimuli. A. R. CHILDRESS*; Y. LI; M. GOLDMAN; J. SUH; Z. SINGER; R. EHRMAN; T. FRANKLIN; D. LANGLEBEN; K. YOUNG; R. WETHERILL; M. GAWRYSIAK; C. O'BRIEN. *Univ. PENN Perelman Sch. Med., Philadelphia Dept. of Veteran's Affairs Med. Ctr., Philadelphia Dept. of Veteran's Affairs Med. Ctr., Philadelphia Dept. of Veteran's Affairs Med. Ctr.*

9:00 NN18 **546.14** An escalating dose regimen of cocaine leads to site-specific changes in neuropeptide Y immunoreactivity in the rat brain. M. SUAREZ*; C. P. KING; D. DANIELS; A. C. THOMPSON. *Univ. At Buffalo, Univ. at Buffalo, Univ. at Buffalo.*

10:00 OO1 **546.15** Mutating Slc7A11 to create a system xc- knockout rat. S. CHOI*; A. GEURTS; J. RESCH; N. RADDATZ; L. KONG; J. CLELAND; J. MANTSCH; D. BAKER. *Marquette Univ., Med. Col. of Wisconsin.*

11:00 OO2 **546.16** Contingent cocaine exposure regulates inhibitory synaptic transmission in the nucleus accumbens. M. OTAKA*; M. ISHIKAWA; B. R. LEE; L. LIU; P. A. NEUMANN; Y. H. HUANG; O. M. SCHLÜTER; Y. DONG. *Univ. of Piitsburgh, The Scripps Res. Inst., Univ. of Piitsburgh, European Neurosci. Inst.*

8:00 OO3 **546.17** An adaptive role for TNFα mediated plasticity in response to cocaine. G. M. LEWITUS*; S. KONEFAL; D. STELLWAGEN. *McGill Univ. Hlth. Ctr.*

9:00 OO4 **546.18** ● Role of HDAC3 in modulating acquisition/consolidation and extinction of cocaine-induced conditioned place preference. A. WHITE*. *UC Irvine.*

10:00 OO5 **546.19** Manipulation of moesin protein levels in the nucleus accumbens core regulates cocaine-induced locomotor activity. W. KIM; J. JANG; B. CHO; J. LEE; W. CAI; S. JEON; J. KIM*. *Yonsei Univ. Coll Med., Dongguk Univ.*

11:00 OO6 **546.20** Beta-arrestin 1 dependent regulation of cocaine self-administration in mice. N. MITTAL*; Z. ABDULLA; A. M. JAMES; D. JENTSCH; C. CRAWFORD; C. EVANS; W. WALWYN. *Univ. of Texas At Austin, California State Univ. San Bernardino, Univ. of California Los Angeles.*

8:00 OO7 **546.21** Expression of the HIV-1 glycoprotein, gp120, increases ROS production and glutamate NMDA receptor density in the dorsal striatum following repeated systemic cocaine administration. D. A. LANE*; M. LYNCH; G. WANG; C. IADECOLA; V. M. PICKEL. *Weill Med. Col. of Cornell Univ.*

9:00 OO8 **546.22** Cellular mechanisms of enhanced cocaine self-administration in mhc class I deficient mice. G. MURAKAMI*; H. MENG; M. EDAMURA; D. NAKAHARA. *Dept. of Psychology, Hmamatsu Univ. Sch.*

10:00 OO9 **546.23** Cocaine exposure alters pathway-specific synaptic connectivity in the Nucleus Accumbens. A. MACASKILL*; J. M. CASSEL; A. G. CARTER. *New York Univ.*

11:00 OO10 **546.24** Sex differences in girk signaling in layer 5/6 pyramidal neurons of the mouse prefrontal cortex. E. MARRON*; M. HEARING; K. WICKMAN. *Univ. of Minnesota.*

8:00 OO11 **546.25** Antioxidant compounds modulate cocaine-conditioned effects on locomotion. J. D. NGUYEN*; M. J. FORSTER. *Univ. of North Texas Hlth. Sci. Ctr.*

9:00 OO12 **546.26** The effect of acupuncture on the cocaine-induced anhedonia. S. IN*; B. LEE; H. HAN; H. KIM; S. YOON; C. YANG; S. LEE; R. ZHAO; S. LIM; J. KIM; Y. LEE; H. LEE; T. JUNG; S. IN. *Daegu Haany Univ., Daegu Haany Univ., Daegu Haany Univ., Mudanjiang Med. Univ., Daegu Haany Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 OO13 **546.27** Acceleration of habit learning following cocaine sensitization and reversal by N-acetylcysteine. L. H. CORBIT*; B. C. CHIENG; B. W. BALLEINE. *Univ. of Sydney, Brain and Mind Res. Inst.*

11:00 OO14 **546.28** ● Local field potentials in the ventral tegmental area correlate with cocaine-induced locomotor activation: Measurements in freely moving rats. A. HARRIS*; A. LI; J. E. SIBI; S. A. MORRIS-BOBZEAN; Y. PENG; L. I. PERROTTI*. *The Univ. of Texas At Arlington, The Univ. of Texas at Arlington.*

8:00 OO15 **546.29** ▲ Effects of a positive allosteric modulator of the metabotropic glutamate receptor 5 within the Nucleus Accumbens shell during environmental elicited cocaine conditioning. K. TORRES*; A. MARTÍNEZ-RIVERA; L. GONZÁLEZ; C. S. MALDONADO-VLAAR. *Univ. De Puerto Rico, Rio Piedras.*

POSTER

547. Monoamines and Behavior: Serotonin and Histamine

Theme C: Disorders of the Nervous System

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

8:00 OO16 **547.01** Targeting serotonin uptake to ameliorate social behavior deficiencies in pre-clinical models. G. G. GOULD*. *UT Hlth. Sci. Ctr, SA.*

9:00 OO17 **547.02** Serotonin regulates hippocampal synaptic plasticity and object memory in mice. S. P. FERNANDEZ*; A. GRUART; J. DELGADO; P. GASPAR. *INSTITUT DU FER A MOULIN Inserm-U839, Pablo Olavide Univ.*

10:00 OO18 **547.03** Sub-chronic administration of MDMA leads to long term changes in murine social behavior. D. W. CURRY*; K. S. MURNANE; M. T. LOGUN; L. L. HOWELL. *Emory Univ., Yerkes Natl. Primate Res. Ctr., Emory Univ., Emory Univ. Sch. of Med.*

11:00 PP1 **547.04** A predisposition toward inherent impulsivity is associated with elevated 5-HT2AR expression. L. H. FINK*; N. C. ANASTASIO; R. G. FOX; F. G. MOELLER; K. A. CUNNINGHAM. *Univ. of Texas Med. Br., Virginia Commonwealth Univ.*

8:00 PP2 **547.05** Fast onset of action and neurogenesis dependency of 5HT4 receptor agonist in an animal model of anxiety/depression. I. DAVID*; D. J. DAVID; Z. EL-ALI; F. DARCET; M. WU; S. KERDINE; R. HEN; A. M. GARDIER. *Univ. Paris Sud, Univ. Paris Sud, Columbia Univ.*

9:00 PP3 **547.06** Rines E3 ubiquitin ligase regulates MAO-A levels and emotional responses. M. KABAYAMA*; K. SAKOORI; K. YAMADA; M. ODAGAWA; N. MORIMURA; K. KATAYAMA; N. P. MURPHY; J. ARUGA. *RIKEN Brain Sci. Inst., RIKEN Brain Sci. Inst. (BSI), RIKEN Brain Sci. Inst. (BSI), Brain Sci. Inst. (BSI), RIKEN Brain Sci. Inst. (BSI).*

10:00 PP4 **547.07** Fluoxetine exposure during development affects later social behavior in the prairie vole (Microtus ochrogaster). R. H. LARKE*; K. L. BALES. *Univ. of California, Davis.*

11:00 PP5 **547.08** Effects of a sertraline (an SSRI antidepressant) and venlafaxine (an SNRI antidepressant) on forced swim test behavior and neurogenesis levels in female rats. J. KOTT*; S. BRUMMELTE. *Wayne State Unviersity.*

8:00 PP6 **547.09** Roles of serotonin during the postnatal period in the anxiety, depression, and the spatial learning in adult BALB/c mice. C. ISHIKAWA*; A. OHTANI; M. YOSHIKAWA; T. SHIGA. *Univ. of Tsukuba, Nihon Univ.*

9:00 PP7 **547.10** A backtranslational study of the selective 5-HT2C agonist lorcaserin in two rat obesity models. G. A. HIGGINS*; J. DESNOYER; A. VAN NIEKERK; L. B. SILENIEKS; W. LAU; S. THEVARKUNNEL; J. DELAY; H. DOBSON. *Intervivo Solutions Inc, U. Toronto, U. Guelph.*

10:00 PP8 **547.11** ● Characterizing the next generation of psychoactive designer drugs: behavioral pharmacology of synthetic cathinones and substituted phenethylamines. A. L. HALBERSTADT*; S. B. POWELL; M. A. GEYER. *UCSD, Univ. of California San Diego.*

11:00 PP9 **547.12** Pharmacological evaluation of novel positive allosteric modulators of serotonin 2C receptor. G. ZHANG*; C. DING; N. C. ANASTASIO; J. S. MONCRIEF; T. M. CARBONARO; R. G. FOX; S. J. STUTZ; T. D. SMITH; C. WILD; J. ZHOU; K. A. CUNNINGHAM. *Univ. of Texas Med. Br., Univ. of Texas Med. Br., Univ. of Texas Med. Br.*

8:00 PP10 **547.13** Stop, put that cookie down: Impulsive action and binge intake of palatable food. N. C. ANASTASIO*; S. J. STUTZ; K. A. CUNNINGHAM. *Univ. Texas Med. Br.*

9:00 PP11 **547.14** Prenatal exposure to fluoxetine results in behavioral and anatomical deficits in offspring; Does tactile stimulation reduce the observed impairments? R. L. GIBB*; A. NAKAHASHI; D. O. FROST; B. E. KOLB. *Univ. Lethbridge, Univ. of Lethbridge, Univ. of Maryland.*

10:00 PP12 **547.15** A non-invasive method of fluoxetine administration to rats. J. PAWLUSKI; E. VAN DONKELAAR; Z. ABRAMS; V. HOUBART; H. STEINBUSCH; M. FILLET; T. D. CHARLIER*. *Univ. of Liege, Maastricht Univ., Ohio Univ., Univ. of Liege.*

11:00 PP13 **547.16** Early life perturbations of 5HT2 receptor lead to disrupted anxiety related behavior in adulthood. P. CHACHRA*; A. SARKAR; V. A. VAIDYA. *Tata Inst. of Fundamental Res.*

POSTER

548. Auditory System: Synapses, Circuits, and Models

Theme D: Sensory and Motor Systems

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

8:00 PP14 **548.01** Type II spiral ganglion neurons contribute to contralateral suppression of hearing. K. E. FROUD*; A. C. Y. WONG; M. KLUGMANN; J. JULIEN; A. F. RYAN; G. D. HOUSLEY. *Univ. of New South Wales, Laval Univ., Univ. of California at San Diego, San Diego Veterans Adminsitration Med. Ctr.*

9:00 PP15 **548.02** Zebrafish sensory hair-cell activity is facilitated by dopaminergic efferents via the D1 dopamine receptor. C. G. PHILLIPS*; J. G. TRAPANI; T. NICOLSON. *Oregon Hlth. and Sci. Univ., Amherst Col.*

10:00 PP16 **548.03** Presynaptic release properties show target-specific regulation at auditory nerve terminals in avian cochlear nuclei. J. AHN; K. M. MACLEOD*. *Univ. Maryland.*

11:00 PP17 **548.04** Functional topography of intrinsic and commissural pathways in the auditory midbrain. C. C. LEE*; Y. YANAGAWA; K. IMAIZUMI. *LSU Sch. of Vet. Med., Gunma Univ. Grad. Sch. of Med.*

8:00 PP18 **548.05** Immediate and residual suppression of neural firing in the inferior colliculus induced by focal electrical stimulation of auditory cortex. C. D. MARKOVITZ*; P. S. HOGAN; K. A. WESEN; H. H. LIM. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 PP19 **548.06** *In vivo* optical recording of auditory responses in mouse's inferior colliculus using a micro-endoscope. H. YASHIRO*; I. NAKAHARA; K. I. KOBAYASI; K. FUNABIKI; H. RIQUIMAROUX. *Doshisha Univ., Kyoto Univ., Osaka Biosci. Inst., Doshisha Univ., Doshisha Univ.*

10:00 PP20 **548.07** Membrane potential dynamics and spiking correlations in the auditory cortex during spontaneous and tone-evoked activity *in vivo*. M. GRAUPNER*; A. D. REYES. *Ctr. For Neural Science, NYU.*

11:00 PP21 **548.08** Bijective maps between acoustic and cortical Spaces: Representation of tone frequency and intensity in auditory cortex. A. D. REYES*. *New York Univ.*

8:00 PP22 **548.09** Functional properties of VIP inhibitory neurons in the mouse primary auditory cortex. L. MESIK*; H. W. TAO; L. ZHANG. *Unifersity of Southern California, USC.*

9:00 PP23 **548.10** Multielectrode array recording of propagation of activity evoked by electrical micro-stimulation in horizontal and coronal slices of the mouse auditory cortex. H. KITAMURA*; J. NISHIKAWA; T. TATENO. *Hokkaido Univ.*

10:00 PP24 **548.11** Intracortical multiplication of thalamocortical signals in mouse auditory cortex. L. LI*; Y. LI; L. A. IBRAHIM; H. W. TAO; L. I. ZHANG. *USC, USC.*

11:00 QQ1 **548.12** Spatiotemporal activity patterns in auditory cortex deviate from those predicted by the canonical microcircuit model. B. M. KRAUSE*; A. RAZ; D. J. UHLRICH; P. H. SMITH; M. I. BANKS. *Univ. of Wisconsin, Univ. of Wisconsin, Rabin Med. Ctr., Sackler Sch. of Medicine, Tel Aviv Univ., Univ. of Wisconsin.*

8:00 QQ2 **548.13** A circuit basis for motor cortical modulation of auditory cortical activity. A. NELSON*; D. SCHNEIDER; J. TAKATO; F. WANG; R. MOONEY. *Duke Univ.*

9:00 QQ3 **548.14** Interlaminar processing in auditory cortex: Spontaneous and evoked responses of independent sources. E. MUNRO*; T. KHODAI; S. SAKATA; T. TOYOIZUMI. *RIKEN Brain Sci. Inst. - Wako, Univ. of Strathclyde.*

10:00 QQ4 **548.15** Auditory cortical local subnetworks are characterized by sharply synchronous activity. C. A. ATENCIO*; C. E. SCHREINER. *UCSF.*

11:00 QQ5 **548.16** Gsx1 specified neurons are required for prepulse inhibition. H. A. BURGESS*; G. LI; N. CARRIER; S. A. BERGERON. *NIH/NICHD, Univ. of Texas Hlth. Sci. Ctr. San Antonio.*

8:00 QQ6 **548.17** Inhibitory components of synaptic PPI in the goldfish auditory startle circuit. P. CURTIN*; T. PREUSS. *City Univ. of New York, Hunter Col., Hunter College, CUNY.*

POSTER

549. Auditory System: Adaptation, Learning, and Memory

Theme D: Sensory and Motor Systems

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

8:00 QQ7 **549.01** Mouse gene expression analysis following temporary threshold shift. J. M. CEDERHOLM*; K. E. FROUD; A. F. RYAN; G. D. HOUSLEY. *Univ. of New South Wales, Univ. of California at San Diego, San Diego Veterans Admin. Med. Ctr.*

9:00 QQ8 **549.02** Categorical perception of communication sounds and a learned category through sound discrimination training revealed by mismatch negativity in Mongolian gerbils. Y. TORIGOE*; K. I. KOBAYASI; H. RIQUIMAROUX. *Doshisha Univ., Doshisha Univ., Doshisha Univ.*

10:00 QQ9 **549.03** Decrement in cochlear microphonics to a repeated sound in Mongolian Gerbil, Meriones unguiculatus. S. BOKU*; K. I. KOBAYASI; H. RIQUIMAROUX. *Doshisha Univ., Doshisha Univ., Doshisha Univ., Doshisha Univ.*

11:00 QQ10 **549.04** Organized motion direction selectivity mediated by response adaptation in the owl's inferior colliculus. Y. WANG*; J. L. PENA. *Albert Einstein Col. of Med.*

8:00 QQ11 **549.05** Towards an antibody toolkit for array tomography in avian species. K. E. PANNONI*; A. MUKHTAR; D. RYBKA; W. DEBELLO. *Univ. of California, Ctr. for Neuroscience, Univ. of California.*

9:00 QQ12 **549.06** Neuronal circuits underlying attention-dependent learning in the barn owl. D. SANCULI*; W. DEBELLO. *Univ. of California Davis.*

10:00 QQ13 **549.07** Functional connectivity within and across structures in the barn owl midbrain in response to auditory and visual stimulation. D. TOTTEN*; W. DEBELLO. *UC Davis.*

11:00 QQ14 **549.08** Effects of fear conditioning on auditory steady-state responses in inferior colliculus. A. V. LOCKMANN*; F. A. G. MOURÃO; M. F. D. MORAES. *Univ. Federal De Minas Gerais.*

8:00 QQ15 **549.09** Stimulus specific adaptation is stronger at short latencies in the inferior colliculus. T. RUBIN*; E. D. YOUNG. *Johns Hopkins, Johns Hopkins Univ.*

9:00 QQ16 **549.10** Hierarchical network of vocalizations in songbird groups. A. L. VYSSOTSKI*; V. N. ANISIMOV; A. V. LATANOV; R. H. R. HAHNLOSER. *Inst. of Neuroinformatics, Univ. of Zurich and ETH Zurich, Fac. of Biology, Moscow State Univ.*

10:00 QQ17 **549.11** Modulation of spontaneous and sensory-evoked synaptic dynamics in A1 during auditory discrimination tasks in mice. M. J. MCGINLEY*; S. V. DAVID; D. A. MCCORMICK. *Yale Univ., Oregon Hlth. & Sci. Univ.*

11:00 QQ18 **549.12** Layer 6 corticothalamic projections actively maintain sound selectivity in the lemniscal subdivision of the medial geniculate body but provide gain control to a non-lemniscal subdivision. A. R. CLAUSE*; D. B. POLLEY. *Massachusetts Eye & Ear Infirmary, Harvard Med. Sch.*

8:00 QQ19 **549.13** Enhanced but dysregulated experience-dependent plasticity in the aged brain due to reduced inhibition. M. CISNEROS-FRANCO*; E. DE VILLERS-SIDANI. *McGill Univ. Integrated Program In Neurosci., Montreal Neurolog. Inst.*

9:00 QQ20 **549.14** Learning strategy shift accounts for renormalization of sensory map plasticity. G. A. ELIAS; K. M. BIESZCZAD; N. M. WEINBERGER*. *Univ. of California, Irvine, Univ. of California, Irvine.*

10:00 QQ21 **549.15** Differential neuronal responses in ferret frontal cortex during performance of positive and negative reward versions of an auditory long-term memory task. J. B. FRITZ*; S. A. SHAMMA; P. YIN. *Univ. Maryland.*

11:00 QQ22 **549.16** Activity of auditory cortical neurons in monkeys performing a short-term memory task. B. H. SCOTT*; P. YIN; M. MISHKIN. *NIMH, Univ. of Maryland.*

8:00 QQ23 **549.17** Cortical oscillations and spiking activity associated with Artificial Grammar Learning in the monkey auditory cortex. Y. KIKUCHI*; A. ATTAHERI; A. MILNE; B. WILSON; C. I. PETKOV. *Newcastle Univ. Med. Sch.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 QQ24 **549.18** ERP microstates and source imaging reveal progressive changes in cerebral processing of musical syntax with level of musical expertise. C. E. JAMES*; M. S. OECHSLIN; D. VAN DE VILLE; F. LAZEYRAS; D. BAVELIER; C. MICHEL. *Univ. of Applied Sci. Western Switzerland, Univ. of Geneva, Univ. of Zurich, Univ. of Geneva, Univ. of Geneva.*

10:00 QQ25 **549.19** Occupationally induced hearing impairment: Is the error rate during auditory pattern recognition affected and does this produce mental stress? E. EMMERICH; F. RICHTER*. *Univ. Hosp. Jena.*

11:00 QQ26 **549.20** Pitch matching vocal training paradigm with audio cuing and F0 perturbation, a software only implementation. B. ROGERS*; A. L. PARKINSON; C. R. LARSON; D. A. ROBIN. *Univ. of Texas Hlth. Sci. Ctr., Northwestern Univ., Northwestern Univ.*

POSTER

550. Mutisensory: Cross-Modal Processing in Humans

Theme D: Sensory and Motor Systems

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

8:00 RR1 **550.01** No unique neural network for abstract coding of audiovisual speech. N. MALFAIT*; P. FONLUPT; L. CENTELLES; B. NAZARIAN; L. BROWN; A. CACLIN. *CNRS / INT, INSERM / U1028, Aix Marseille Univ., Trent Univ.*

9:00 RR2 **550.02** Tract-based spatial statistics of absolute pitch: white matter differences in association fibers. E. A. GARZA-VILLARREAL*; A. DOHN; M. CHAKRAVARTY; M. HANSEN; J. P. LERCH; P. VUUST. *Univ. Autonoma De Nuevo Leon, Univ. Autonoma de Nuevo Leon, Univ. of Aarhus, Univ. of Toronto, Univ. of Toronto, Baycrest, Univ. of Toronto, The Royal Acad. of Music.*

10:00 RR3 **550.03** Anatomical and functional networks underlying audio-visual integration. D. BRANG*; J. ZWEIG; Z. J. TAICH; J. MISHRA; S. SUZUKI; S. A. HILLYARD; V. S. RAMACHANDRAN; M. GRABOWECKY. *Northwestern Univ., Univ. of CA, San Diego, Univ. of CA, San Francisco.*

11:00 RR4 **550.04** Meta-analytic connectivity modeling (MACM) of anterior vs. **POSTER**ior superior temporal sulcus. L. C. ERICKSON*; J. P. RAUSCHECKER; P. E. TURKELTAUB. Georgetown Univ.

8:00 RR5 **550.05** Functional cross-subject mapping predicts brain activity to novel natural movies and speech. N. Y. BILENKO*; A. G. HUTH; S. NISHIMOTO; J. L. GALLANT. *Univ. of California, Berkeley, Univ. of California, Berkeley, Univ. of California, Berkeley.*

9:00 RR6 **550.06** The left prefrontal cortex controls information integration by combining bottom-up inputs and top-down predictions. G. REMI*; U. NOPPENEY. *Univ. of Birmingham - Sch. of Psychology, Max Planck Inst. for Biol. Cybernetics.*

10:00 RR7 **550.07** Cross-modal re-organization in adults with mild-moderate hearing loss. J. D. CAMPBELL*; L. DURKEE; A. SHARMA. *Univ. of Colorado At Boulder.*

11:00 RR8 **550.08** Somatosensory-to-auditory cross-modal plasticity in deaf children with cochlear implants. G. J. CARDON*; A. SHARMA. *Univ. of Colorado At Boulder.*

8:00 RR9 **550.09** Visual-tactile integration in the human brain: A combined EEG-fMRI study. D. WANG*; D. Q. MIAO; B. COE; J. GALLIVAN; G. BLOHM. *Tongji Univ., Key Lab. of Embedded Syst. and Service Computing, Ministry of Educ., Queen's Univ., Canadian Action and Perception Network (CAPnet).*

9:00 RR10 **550.10** Correlation of functional and structural visual stream connectivity with V1 tactile-evoked BOLD responses in patients with retinitis pigmentosa. S. I. CUNNINGHAM*; J. D. WEILAND; P. BAO; B. S. TJAN. *USC, USC, USC.*

10:00 RR11 **550.11** Cross-sensory phase reset impacts coherence between sensory and motor cortices: An electro-corticographic study. M. R. MERCIER*; M. SOPHIE; I. C. FIEBELKORN; J. J. BUTLER; T. H. SCHWARTZ; J. J. FOXE. *Cognitive Neurophysiol. Lab., Weill Cornell Med. Col., Neurosci. of Attention & Perception Lab., Princeton Univ.*

11:00 RR12 **550.12** Number of temporally accurate steps during dance video game correlates with the activity in the middle temporal gyrus and the frontopolar cortex. Y. NOMOTO*; J. A. NOAH; A. TACHIBANA; S. BRONNER; S. SHIMADA; Y. ONO. *Meiji Univ., Yale Univ., Seijoh Univ., Northeastern Univ.*

8:00 RR13 **550.13** Enhanced multisensory processing in musicians. J. ROY*; S. LANDRY; J. LÉVESQUE; F. CHAMPOUX. *Univ. De Montréal, Ctr. de Recherche en Neuropsychologie et Cognition (CERNEC), Ctr. de recherche interdisciplinaire en réadaptation du Montréal métropolitain, Inst. Raymond-Dewar.*

9:00 RR14 **550.14** Structural brain differences associated with sensory profiles. M. T. VAN KESTEREN*; M. R. VAN SCHOUWENBURG; D. R. RUITER; G. FERNÁNDEZ. *Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr.*

10:00 RR15 **550.15** Reconfiguration of network hub structure after propofol-induced unconsciousness. U. LEE; H. LEE; G. A. MASHOUR*. *Univ. of Michigan, POSTECH.*

11:00 RR16 **550.16** Parietal short intracortical inhibition: parietal double-pulse transcranial magnetic stimulation. R. W. PAINE; A. N. KARABANOV; C. CHAO; M. HALLETT*. *NINDS/NIH, Copenhagen Univ. Hosp. Hvidovre, Natl. Taiwan Univ. Hosp. No.7.*

8:00 RR17 **550.17** Neural synchronization during bottom-up and top-down visual processing in grapheme-color synesthetes and schizophrenia patients. T. M. VAN LEEUWEN; M. WIBRAL; A. SAUER; P. J. UHLHAAS; W. SINGER; L. MELLONI*. *Max Planck Inst. for Brain Res., Ernst Strüngmann Inst. (ESI) for Neurosci. in cooperation with Max Planck Society, Johann Wolfgang Goethe Univ., Univ. of Glasgow, Johann Wolfgang Goethe Univ., Columbia Univ.*

9:00 RR18 **550.18** ▲ Development of an evaluation method for degrees of synesthetic perception. D. NAKAJIMA*; H. MAZAKI; R. YAYAMA; K. KATAHIRA; A. SHIRAIWA; E. AIBA; N. NAGATA. *Kwansei Gakuin Univ., Natl. Inst. of Advanced Industrial Sci. and Technol., Japan Society for the Promotion of Sci.*

10:00 RR19 **550.19** Investigating the links between spatial-numerical interactions and sequence processing using patterned TMS. N. BIEN*; A. T. SACK; C. SCHILTZ. *Univ. of Luxembourg, Maastricht Univ.*

11:00 RR20 **550.20** ● Gender differences in cortico-subcortial network coupling during facial expressions. F. R. LOAYZA*; J. BUENDÍA; M. CELORRIO; F. VILLAGRA; B. HONTANILLA; M. PASTOR. *Litoral Polytechnic Univ. (ESPOL), Ctr. for Applied Med. Res., Clinica Univ. of Navarra.*

8:00 RR21 **550.21** Direct comparison of network connectivity revealed by resting-state fMRI and concurrent TMS-fMRI. J. M. YAU*; M. B. NEBEL; J. HUA; J. E. DESMOND. *Johns Hopkins Univ., Kennedy Krieger Inst., Johns Hopkins Univ.*

Tue. AM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 RR22 **550.22** Resting state functional connectivity before, during and after 70 days of bed rest. B. ERDENIZ*; V. KOPPELMANS; J. BLOOMBERG; Y. E. DE DIOS; I. KOFMAN; D. SZECSY; M. FIEDLER; B. PETERS; E. ALLEN; R. RIASCOS-CASTANEDA; A. P. MULAVARA; R. SEIDLER. *Univ. of Michigan, NASA Johnson Space Ctr., Wyle Science, Technol. & Engin. Group, UTMB, Radiology, Universities Space Res. Assn.*

POSTER

551. Multisensory: Neural Circuitry and Connections

Theme D: Sensory and Motor Systems

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

8:00 RR23 **551.01** Multisensory processing in the zebrafish escape circuit. A. M. LACOSTE*; D. SCHOPPIK; D. N. ROBSON; J. M. LI; F. ENGERT; A. F. SCHIER. *Harvard Univ.*

9:00 RR24 **551.02** A thalamic reticular nucleus circuit that regulates the selection of sensory inputs. S. AHRENS*; S. JARAMILLO; S. GHOSH; C. LAI; J. Z. HUANG; B. LI. *Cold Spring Harbor Lab., Idiana Univ.*

10:00 RR25 **551.03** Potentiation of feed-forward inputs in auditory cortex after visual deprivation. E. R. PETRUS*; H. LEE. *Johns Hopkins Univ., Johns Hopkins Univ.*

11:00 RR26 **551.04** Auditory signals affect the responses of neurons in early visual stages of awake rats. C. YEH*; K. LEE. *Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ.*

8:00 SS1 **551.05** Early multisensory interactions revealed through simultaneous recordings from superior and inferior colliculus in the ferret. I. STITT; E. GALINDO-LEON; F. PIEPER; K. J. HOLLENSTEINER; G. ENGLER; A. K. ENGEL*. *Dept. of Neurophysiol. and Pathophysiology.*

9:00 SS2 **551.06** Responses of prefrontal multisensory neurons to mismatching faces and vocalizations. M. M. DIEHL*; M. D. DILTZ; L. M. ROMANSKI. *Univ. of Puerto Rico, Sch. of Med., Univ. of Rochester Sch. Med. & Dent.*

10:00 SS3 **551.07** ▲ Multisensory integration in non-human primates during a sensory-motor task. F. LANZ*; V. MORET; E. M. ROUILLER; G. LOQUET. *Univ. of Fribourg.*

11:00 SS4 **551.08** Predictive modulation of alpha and gamma activity and their interaction during auditory and motor tasks in monkey and human. A. DE PESTERS*; P. BRUNNER; A. GUNDUZ; A. RITACCIO; C. MEHRING; P. DE WEERD; M. ROBERTS; N. BRUNET; R. OOSTENVELD; P. FRIES; G. SCHALK. *Wadsworth Ctr., State Univ. of New York at Albany, Albany Med. Col., Graz Univ. of Technol., Univ. of Florida, Imperial Col., Fac. of Psychology and Neuroscience, Maastricht Univ., Donders Inst. for Brain, Cognition and Behaviour, Ernst Strügmann Inst. for Neurosci.*

8:00 SS5 **551.09** Corticocortical connections of area 5 in macaque monkeys support the existence of functionally distinct medial and lateral regions. D. F. COOKE*; J. PADBERG; C. M. CERKEVICH; J. H. KAAS; L. KRUBITZER. *UC Davis, UC Davis, Univ. of Central Arkansas, Vanderbilt Univ.*

9:00 SS6 **551.10** A quantitative analysis of the topology of subcortical projections to the macaque cortex. A. R. RIBEIRO GOMES*; C. LAMY; P. MISERY; C. DEHAY; K. KNOBLAUCH; H. KENNEDY. *Stem-Cell and Brain Res. Inst.*

10:00 SS7 **551.11** Local and long-range connections from cortex and thalamus target specific, complementary sub-cellular compartments of corticospinal neurons. B. A. SUTER*; G. M. G. SHEPHERD. *Dept Physiology, Feinberg Sch. Med., Northwestern Univ.*

11:00 SS8 **551.12** Selective connectivity of layer 6 corticothalamic neurons with other classes of projection neurons in mouse motor cortex. N. YAMAWAKI*; I. R. WICKERSHAM; G. M. G. SHEPEHRD. *Northwestern Univ., MIT.*

8:00 SS9 **551.13** The control of firing pattern of midbrain periaqueductal gray neurons *in vivo.* H. SUBRAMANIAN*. *The Univ. of Queensland.*

9:00 SS10 **551.14** Stimulation of melanocortin 4 receptors in the brainstem inhibits GABAergic/somatostatin interneuron activity. A. LEWIN; S. VICINI; R. A. GILLIS; N. SAHIBZADA*. *Georgetown Univ. Med. Ctr.*

10:00 SS11 **551.15** Oxytocin mediates early experience-dependent crossmodal plasticity of excitatory synaptic transmission in the sensory cortices. J. ZHENG; S. LI; X. ZHANG; W. MIAO; X. YU*. *Inst. of Neurosci., Inst. of Neurosci.*

11:00 SS12 **551.16** Ultrasonic vocalization in perinatally underfed pups, and massage stimulation effects. D. LOPEZ-JIMENEZ; M. REGALADO; M. A. SALAS*. *UNAM.*

POSTER

552. Visual Cognition: Memory

Theme D: Sensory and Motor Systems

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

8:00 TT1 **552.01** Single unit activity in the monkey hippocampus related to short-term memory. J. H. WITTIG*, Jr.; B. J. RICHMOND. *NIMH.*

9:00 TT2 **552.02** Differential effects of TE and rhinal cortical lesions on serial recognition in rhesus monkeys. M. A. ELDRIDGE*; E. C. MASSEAU; R. C. SAUNDERS; B. J. RICHMOND. *NIMH.*

10:00 TT3 **552.03** Modelling visual categorisation experimental observations from monkeys with a reinforcement learning-based spiking neural network. S. CHANDRA*; M. A. G. ELDRIDGE; F. P. HARTMANN; J. P. NADAL; B. J. RICHMOND. *Natl. Inst. of Health, NIMH-LN,, École Normale Supérieure.*

11:00 TT4 **552.04** Anti-correlated spike rates associated with working memory activity in macaque dorsolateral prefrontal cortex. M. LEAVITT*; F. PIEPER; A. SACHS; J. MARTINEZ-TRUJILLO. *McGill Univ., Univ. of Hamburg-Eppendorf, The Ottawa Hospital, Ottawa Hosp. Res. Institute, Univ. of Ottawa, McGill Univ.*

8:00 TT5 **552.05** MRI-assisted single-unit recording revealed precise neuronal map in the perirhinal cortices of macaque monkeys performing a visual pair-association task. 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.*

9:00 TT6 **552.06** Dissociation between behavioral flexibility and persistent memory of cue-reward contingency represented by the activities of perirhinal (PRh) neurons in macaque monkeys. M. K. ERADATH*; T. MOGAMI; K. TANAKA. *Brain Sci. Institute, RIKEN, Grad. Sch. of Sci. and Engineering, Saitama Univ.*

10:00 TT7 **552.07** Timescale limitations of perceptual expectation on fMRI repetition suppression. E. J. WARD*; M. M. CHUN. *Yale Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 TT8 **552.08** Reactivation of visual activity in human electrocorticography. B. J. HANSEN*; M. I. CHELARU; N. TANDON; C. R. CONNER; S. SZUKALSKI; J. D. SLATER; G. P. KALAMANGALAM; V. DRAGOI. *The Salk Inst., UT Med. Sch., UT Med. Sch., UT Med. Sch.*

8:00 TT9 **552.09** A resource view on visual short-term memory for multi-feature objects. H. SHIN*; R. VAN DEN BERG; W. MA. *Baylor Col. of Med., Univ. of Cambridge, Baylor Col. of Med.*

9:00 TT10 **552.10** Contrasting left and right perirhinal cortex recruitment during visual processing of verbal and non-verbal stimuli. M. A. DALTON*; M. HORNBERGER; J. R. HODGES; O. PIGUET. *Neurosci. Res. Australia.*

POSTER

553. Retinal Circuitry: Synaptic Interactions

Theme D: Sensory and Motor Systems

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

8:00 TT11 **553.01** Biophysical mechanism of the omitted stimulus response. N. DESHMUKH*; F. S. SOO; G. W. SCHWARTZ; M. J. BERRY, 2. *Princeton Univ., Univ. of Washington, Princeton Univ.*

9:00 TT12 **553.02** The role of bipolar cells in direction selectivity circuitry examined by a novel fluorescent labeling technique. A. POLEG-POLSKY*; J. S. DIAMOND. *NIH/NINDS.*

10:00 UU1 **553.03** Model-based analysis of an electrically-coupled amacrine cell network in primate retina. A. K. HEITMAN*; M. GRESCHNER; G. D. FIELD; P. H. LI; D. AHN; A. SHER; A. M. LITKE; E. J. CHICHILNISKY. *Salk Inst., Univ. of Oldenburg, USC, Univ. of California, Santa Cruz.*

11:00 UU2 **553.04** Morphology of tyrosine hydroxylase-immunoreactive amacrine cells in the retina of developing gerbil. H. IMADA; K. SAKAI; E. MIYACHI*. *Fujita Hlth. Univ. Sch. Med., Fujita Hlth. Univ. Sch. Hlth. Sci.*

8:00 UU3 **553.05** Feedback from horizontal cells to cones: An unexpected synthesis of an ephaptic and a pH-mediated system. R. VROMAN*; L. KLAASSEN; M. HOWLETT; J. KLOOSTER; T. SJOERDSMA; M. KAMERMANS. *Netherlands Inst. For Neurosci.*

9:00 UU4 **553.06** Horizontal cells inhibit photoreceptors via an unconventional GABA- and pH-sensitive mechanism in rat retina. X. LIU; A. A. HIRANO; X. SUN; N. C. BRECHA; S. A. BARNES*. *UCLA, Dalhousie Univ.*

10:00 UU5 **553.07** ▲ Evaluating post synaptic densities and ribbon synapses in mouse models of glaucoma. T. A. JENRETTE*; C. BENOIST. *Georgia State Univ., Vanderbilt Univ.*

11:00 UU6 **553.08** The interplay between proton gradients and chloride flux in retinal amacrine cells. V. S. KRISHNAN*; E. GLEASON. *Louisiana State Univ.*

8:00 UU7 **553.09** Circadian-induced AMPA Receptor plasticity in retinal ganglion cells. M. D. PEDISICH*; S. NAWY. *Albert Einstein Col. of Med.*

9:00 UU8 **553.10** ipRGCs mediate ipsilateral pupil constriction. T. M. SCHMIDT*; A. C. RUPP; K. S. CHEW; B. YUNGHER; K. K. PARK; S. HATTAR. *Johns Hopkins Univ., Univ. of Miami, Johns Hopkins Univ.*

10:00 UU9 **553.11** Novel light response mutants identified in a pupillometry screen of ENU mutant mice. G. BANKS*; T. OSBORN; C. A. POTHECARY; S. N. PEIRSON; R. G. FOSTER; P. M. NOLAN. *MRC, Mary Lyon Ctr., Univ. of Oxford.*

11:00 UU10 **553.12** ● ▲ Intravitral engraftment of mesenchymal stem cells loading on hydrogel in the ischemic rat retina. J. LEE*; J. SHIN; S. PAIK; C. YEUM; G. CHAE; I. KIM; M. CHUN; S. OH. *Catholic Univ. Korea, Dept. of Inst. of Hanses's Desease.*

8:00 UU11 **553.13** P2X7 receptor activation modulates light-evoked retinal ganglion cell synaptic responses and microglial morphology. S. CHAVDA*; P. J. LUTHERT; T. E. SALT. *UCL Inst. of Ophthalmology, UCL Inst. of Ophthalmology, NIHR Biomed. Res. Ctr. in Ophthalmology.*

9:00 UU12 **553.14** Nitric oxide modulates OFF bipolar cell responses in the retina. O. SCHMACHTENBERG*; A. H. VIELMA. *Cinv-Universidad De Valparaiso.*

10:00 UU13 **553.15** LKB1 and AMPK regulate synaptic remodeling in old age. M. A. SAMUEL*; P. E. VOINESCU; B. N. LILLEY; R. DE CABO; M. FORETZ; B. VIOLLET; D. G. VAVVAS; J. R. SANES. *Harvard Univ., Natl. Inst. on Aging, INSERM, Harvard Med. Sch.*

11:00 UU14 **553.16** Inhibition controls the occupancy of the readily releasable pool of vesicles at the rod bipolar synapse to normalize contrast coding. N. W. OESCH*; J. S. DIAMOND. *NINDS/NIH.*

8:00 UU15 **553.17** Multiple layers of inhibition to DSGCs are differentially modified by light. A. HOGGARTH*; S. TRENHOLM; A. MCLAUGHLIN; G. AWATRAMANI. *Univ. of Victoria.*

9:00 UU16 **553.18** PlexinA4 restricts retinal ganglion cell axon arborization in the superior colliculus. S. G. THAKAR*; Y. ZOU. *UCSD.*

POSTER

554. Striate Cortex: Functional Organization I

Theme D: Sensory and Motor Systems

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

8:00 UU17 **554.01** The neural ensemble recording in the visual cortex of awake mouse. X. LI*; H. ZHANG; J. TSIEN. *Georgia Regents Univ.*

9:00 UU18 **554.02** Differential wakening effects on inhibitory and excitatory neurons in visual cortex, revealed by *in vivo* two-photon functional imaging. R. KIMURA*; K. SOHYA; M. SAFARI; T. EBINA; Y. YANAGAWA; T. TSUMOTO. *RIKEN BSI, Gunma Univ. Grad. Sch. of Med.*

10:00 UU19-DP7 **554.03** Cell-type specific organization of functional circuits in mouse visual cortex. H. ZENG*; L. LI. *Allen Inst. For Brain Sci.*

11:00 UU20 **554.04** Functional maps in V1 of D1 and D2 dopamine receptors knockout mice. B. O. SOUZA*; S. THOMAS; J. M. BEAULIEU; C. CASANOVA. *École D'Optométrie, Univ. De Montréal, Inst. universitaire de santé mentale de Québec.*

8:00 UU21 **554.05** Functional organization of clonally related neurons in mouse visual cortex during development. G. OHTSUKI*; C. LOIS; K. OHKI. *Kyushu University, Grad Sch. of Med., Univ. of Massachusetts Med. Sch.*

9:00 UU22 **554.06** Spontaneous neuronal ensemble evoked by visual stimulation in awake mice. J. MILLER*; I. AYZENSHTAT; R. YUSTE. *Columbia Univ.*

10:00 UU23 **554.07** Receptive fields and orientation tuning of thalamic excitation onto single neurons of the mouse's visual cortex. A. D. LIEN*; M. SCANZIANI. *UCSD, UCSD, HHMI.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 UU24 **554.08** ● Inhibition of inhibition in visual cortex: The logic of connections between molecularly distinct gabaergic neurons. C. PFEFFER*; M. XUE; M. HE; Z. HUANG; M. SCANZIANI. *UCSD, HHMI, Cold Spring Harbor Lab.*

8:00 UU25 **554.09** Role of thalamocortical input to mouse primary visual cortex in maintenance of excited states. K. REINHOLD*; M. SCANZIANI. *Univ. of California At San Diego.*

9:00 UU26 **554.10** Cell-type specific homeostatic mechanisms in mouse visual cortex. M. XUE*; M. SCANZIANI. *UCSD.*

10:00 VV1 **554.11** Neural circuits for the cortical control of the optokinetic reflex. B. LIU*; A. HUBERMAN; M. SCANZIANI. *UCSD.*

11:00 VV2 **554.12** A virtual foraging task for studying vision in mice. S. R. OLSEN*; M. SCANZIANI. *UCSD/HHMI.*

8:00 VV3 **554.13** ▲ Topological organization of spatial frequency in mouse primary visual cortex. X. ZHANG*; X. AN; J. PENG; S. CAI; W. WANG; Y. YANG. *Lab. of Plasticity of Sensory Syst. Develop.*

9:00 VV4 **554.14** The assembly and function of PV microcircuits in the primary visual cortex. A. BAOHAN*; P. GOLSHANI; J. T. TRACHTENBERG. *UCLA, UCLA.*

POSTER

555. Extrastriate Cortex: Neural Coding

Theme D: Sensory and Motor Systems

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

8:00 VV5 **555.01** Phase-dependent coding in cortical ensembles during attentional tracking. G. H. MULLIKEN*; R. DESIMONE. *MIT, MIT.*

9:00 VV6 **555.02** A two-stage cascade model of BOLD responses in human visual cortex. K. N. KAY*; J. WINAWER; A. ROKEM; A. MEZER; B. A. WANDELL. *Stanford Univ.*

10:00 VV7 **555.03** Effects of rest on V4 network coding in perceptual learning. S. L. EAGLEMAN*; M. MULAS; J. FERNANDEZ-LEON; V. DRAGOI. *Neurobio. and Anat., Univ. of Texas-Houston Med. Sch.*

11:00 VV8 **555.04** Attention can adaptively increase or decrease interneuronal correlations in V4. R. CHANG; D. A. RUFF; M. R. COHEN*. *Univ. of Pittsburgh.*

8:00 VV9 **555.05** Effects of task difficulty on neuronal populations in visual area V4. D. A. RUFF*; R. CHANG; M. R. COHEN. *Univ. of Pittsburgh.*

9:00 VV10 **555.06** Natural texture selectivity of macaque V4 neurons examined by adaptive sampling. G. OKAZAWA*; S. TAJIMA; H. KOMATSU. *Natl. Inst. For Physiol Sci., NHK, SOKENDAI.*

10:00 VV11 **555.07** ▲ Variance in population firing rate as a measure of slow time-scale correlation. M. J. MORAIS*; A. C. SNYDER; M. A. SMITH. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

11:00 VV12 **555.08** The amplitude and phase of EEG oscillations index the spiking correlation of underlying brain areas. A. C. SNYDER*; C. M. WILLIS; M. A. SMITH. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

8:00 VV13 **555.09** Noise covariations weakly reduce spike ensemble decoding of object content in macaque inferior temporal cortex. Y. CHEN*; C. LIN; C. P. HUNG. *Natl. Yang-Ming Univ., Georgetown Univ.*

9:00 VV14 **555.10** Visual selectivity and attentional modulation in V4, IT and the **POSTER**ior lateral pulvinar. E. M. MEYERS*; R. J. SCHAFER; Y. ZHANG; T. POGGIO; R. DESIMONE. MIT, MIT, MIT.

10:00 VV15 **555.11** Decoding spiking activity in V4, but not V1, correlates with behaviour in perceptual learning. S. C. LOWE*; X. CHEN; M. VAN ROSSUM; S. PANZERI; A. THIELE. *Univ. of Edinburgh, Univ. of Edinburgh, Newcastle Univ., Univ. of Glasgow.*

11:00 VV16 **555.12** Neurons in macaque area CIP visually encode the 3D pose of objects. A. ROSENBERG*; D. E. ANGELAKI. *Baylor Col. of Med.*

8:00 VV17 **555.13** Choice-related activity in area CIP during slant discrimination. L. C. ELMORE*; A. ROSENBERG; G. C. DEANGELIS; D. E. ANGELAKI. *Baylor Col. of Med., Univ. of Rochester.*

9:00 VV18 **555.14** Joint tuning for direction of motion and binocular disparity may reveal local map structure in MT. A. SMOLYANSKAYA; D. A. RUFF; R. T. BORN*. *Harvard Med. Sch.*

10:00 VV19 **555.15** Longitudinal investigation of IT cortex: Delayed emergence of learning-induced plasticity. D. A. LEOPOLD*; A. P. JONES; D. B. T. MCMAHON. *NIMH, Univ. of Maryland, Natl. Inst. of Mental Hlth.*

11:00 VV20 **555.16** Longitudinal investigation of IT cortex: Impact of stimulus repetition across days. D. B. MCMAHON*; I. V. BONDAR; D. A. LEOPOLD. *Natl. Inst. of Mental Health, NIH, Inst. of Higher Nervous Activity and Neurophysiol., Natl. Instiute of Mental Hlth.*

8:00 VV21 **555.17** Longitudinal investigation of IT cortex: Probing category selectivity with 10,000 stimuli. A. P. JONES*; D. A. LEOPOLD; D. B. T. MCMAHON. *Univ. of Maryland, NIMH/NIH.*

9:00 VV22 **555.18** Longitudinal investigation of IT cortex: Responses to naturalistic movie stimuli. H. D. ELNAIEM*; D. B. T. MCMAHON; B. E. RUSS; D. A. LEOPOLD. *Natl. Inst. of Mental Health, NIH.*

10:00 WW1 **555.19** Transcranial electrical stimulation mitigates motion adaption in V1, MT, and MST neurons of awake, behaving macaques. K. KAR*; J. DUIJNHOUWER; B. KREKELBERG. *Rutgers Univ.*

11:00 WW2 **555.20** Effects of luminance contrast on the color selective responses in monkey inferior temporal cortex. H. KOMATSU*; T. NAMIMA; M. YASUDA; T. BANNO. *Natl. Inst. Physiol Sci., The Grad. Univ. for Advanced Studies (SOKENDAI), Natl. Eye Inst., Natl. Inst. of Neurosci.*

8:00 WW3 **555.21** Effects of luminance contrast on the color selective responses in monkey visual area V4. T. NAMIMA*; G. OKAZAWA; H. KOMATSU. *Natl. Inst. For Physiological Sci., The Grad. Univ. for Advanced Studies (SOKENDAI).*

POSTER

556. Nociceptors: Anatomical and Physiological Studies

Theme D: Sensory and Motor Systems

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

8:00 WW4 **556.01** Sensitization of developing cutaneous nociceptors during peripheral inflammation. M. P. JANKOWSKI*; J. L. ROSS; J. WEBER; A. T. SHANK; R. C. HUDGINS. *Cincinnati Children's Hosp. Med. Ctr., Univ. of Cincinnati.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 WW5 **556.02** Sensitization of group III and IV muscle afferents after ischemia and reperfusion injury. J. L. ROSS*; E. R. COHEN; R. C. HUDGINS; A. T. SHANK; M. P. JANKOWSKI. *Cincinnati Children's Hosp. Med. Ctr., Univ. of Cincinnati.*

10:00 WW6 **556.03** Firing properties of cutaneous nocieptors in response to natural and optical stimulation in ChR2 transgenic mice. K. M. BAUMBAUER*; J. J. DEBERRY; B. M. DAVIS; H. R. KOERBER. *Univ. of Pittsburgh.*

11:00 WW7-DP6 **556.04** Channelrhodopsin-activation of bladder afferents is sufficient to initiate the visceromotor reflex. J. J. DEBERRY; H. R. KOERBER; K. M. ALBERS; K. M. BAUMBAUER; B. M. DAVIS*. *Univ. of Pittsburgh.*

8:00 WW8-DP8 **556.05** Transgenic expression of endogenous calcium indicator GCaMP3 allows visualization of somatic and visceral sensory neurons *in vivo.* B. M. DAVIS; J. DEBERRY*; K. SMITH; C. J. WOODBURY. *Univ. of Pittsburgh, Univ. of Wyoming.*

9:00 WW9 **556.06** Built to sense: Protein, lipid, and carbohydrate composition of isolated murine dorsal root ganglia neurons. M. A. BARABAS*; E. C. MATTSON; C. J. HIRSCHMUGL; C. L. STUCKY. *Med. Col. of Wisonsin, UW-Milwaukee.*

10:00 WW10 **556.07** A subclass of cutaneous polymodal nociceptive C fiber afferents in non human primates responds to β-alanine. M. RINGKAMP*; M. WOOTEN; J. BORZAN; A. H. KLEIN; T. V. HARTKE; R. A. MEYER. *Johns Hopkins Univ., Johns Hopkins Univ.*

11:00 WW11 **556.08** Single-cell labeling of mammalian non-peptidergic nociceptors reveals differences in central projection morphology between axial- and limb-innervating levels. W. P. OLSON*; J. NIU; A. VYSOCHAN; W. LUO. *Univ. of Pennsylvania.*

8:00 WW12 **556.09** Purinergic modulation of type II cochlear afferents: Sensing trauma in the ear. C. LIU*; E. GLOWATZKI; P. A. FUCHS. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

9:00 WW13 **556.10** Cholinergic neurotransmission links nasal solitary chemosensory cells to the immune system. C. J. SAUNDERS*; M. CHRISTENSEN; T. E. FINGER; M. TIZZANO. *Univ. of Colorado Anschutz Med. Campus, Univ. of Colorado Anschutz Med. Campus, Aarhus Univ.*

10:00 WW14 **556.11** Squid have nociceptors that display widespread long-term sensitization and spontaneous activity after bodily injury. R. CROOK*; R. T. HANLON; E. T. WALTERS. *Univ. of Texas Hlth. Sci. Ctr. At Houston, Marine Biol. Lab.*

11:00 WW15 **556.12** Architecture of lumbar spinal cord immediate early gene expression in nociception. O. BOJOVIC*; D. PANJA; C. R. BRAMHAM; A. TJØLSEN. *Dept. of Biomedicine, Neurosci. research group, Univ. of Bergen, Norway.*

8:00 WW16 **556.13** ● Cutaneous NGF injection in rat: Electrophysiological effects on C-nociceptors revealed by microneurography. ; C. GIAS; R. SOLA; E. GARCIA; M. JONES; J. SERRA. *Neurosci. Technologies.*

9:00 WW17 **556.14** Neurotrophic factors regulate scratching behavior and responses of sensory neurons to pruritogens. S. DAVIDSON*; M. V. VALTCHEVA; J. P. GOLDEN; R. W. GEREAU, IV. *Washington Univ. Sch. of Med., Washington Univ. Sch. of Med.*

10:00 WW18 **556.15** Physiological and behavioral responses to pruritogens in the absence of Protein Kinase-Cδ. M. V. VALTCHEVA*; S. DAVIDSON; C. ZHAO; M. LEITGES; R. W. GEREAU, IV. *Washington Univ. Sch. of Med., Univ. of Oslo.*

11:00 WW19 **556.16** Mutual information analysis of spinal and supraspinal responses to graded electrical stimulations. F. G. ARGUISSAIN*; J. BIURRUN MANRESA; C. D. MØRCH; O. K. ANDERSEN. *Aalborg Universitet.*

8:00 WW20 **556.17** μ-Opioid receptor mediated short-term inhibition of Ca^{2+} signaling and long-term frequency dependent inhibition of action potentials in CGRP nociceptive fibres. L. D. BAILLIE; S. J. MULLIGAN*. *Univ. of Saskatchewan.*

POSTER

557. Psychophysics and Behavior

Theme D: Sensory and Motor Systems

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

8:00 WW21 **557.01** Fibromyalgia is a neurological disorder of abnormal central processing mechanisms. B. T. SHAHANI*; R. S. KATZ. *UIC Col. Med., Rush Univ. Med. Ctr.*

9:00 WW22 **557.02** ● A magnetoencephalography study of early versus late encoding of pain anticipation. R. GOPALAKRISHNAN*; J. C. MOSHER; R. C. BURGESS; A. G. MACHADO. *Cleveland Clin., Cleveland Clin.*

10:00 XX1 **557.03** Pre-attentive cognitive processing as indexed by the mismatch negativity (MMN) in tonic experimental pain. Y. XU; J. WANG; F. LUO*. *Inst. Psychology, Chinese Acad of Sci.*

11:00 XX2 **557.04** Acute effects of written emotional disclosure on spontaneous pain, neurogenic flare, and secondary hyperalgesia. H. R. LINSENBARDT*; S. K. CREECH; M. W. MEAGHER. *Texas A&M Univ., Brown Univ., Providence VA Med. Ctr., Texas A&M Univ.*

8:00 XX3 **557.05** The effects of fear conditioning on the psychophysiological responses to pain. V. TAYLOR*; M. ROY; P. RAINVILLE. *Univ. de Montréal, Ctr. de recherche en neuropsychologie et cognition (CERNEC), Univ. of Colorado Boulder, Univ. de Montréal, Ctr. de recherche de l'Institut universitaire de gériatrie de Montréal (CRIUGM), Groupe de recherche sur le système nerveux central (GRSNC).*

9:00 XX4 **557.06** Associations between chronic stress and pain processing in healthy adults. B. SHAHIDI; M. L. LAUDENSLAGER; K. S. MALUF*. *Univ. of Colorado Anschutz Med. Campus, Univ. of Colorado Anschutz Med. Campus.*

10:00 XX5 **557.07** Interaction effects between active treatment and treatment expectation on pain in humans. L. A. SCHENK*; C. SPRENGER; S. GEUTER; C. BÜCHEL. *Univ. Med. Ctr. Hamburg-Eppendorf.*

11:00 XX6 **557.08** Deficient modulation of pain by a positive emotional context in fibromyalgia patients. H. FLOR*; I. C. BOMBA; E. DIESCH; S. KAMPING. *Dept. of Cognitive and Clin. Neuroscience, CIMH, Heidelberg Univ.*

8:00 XX7 **557.09** Effects of a personal music-enhanced conditioning paradigm on heat pain analgesia. C. HSIEH; J. KONG; R. L. GOLLUB*. *MIT, Massachusetts Gen. Hosp.*

9:00 XX8 **557.10** Cool adaptation reduces the pain of the thermal grill illusion. D. E. HARPER*; M. HOLLINS. *Univ. of North Carolina.*

10:00 XX9 **557.11** Brain indoleamine 2,3-dioxygenas regulates nociceptive and depresion- like behavior in genetically predisposed depression-like behavior rats. H. KIM*; M. MCCABE; G. LIM; L. CHEN; J. MAO. *MGH, MGH, MGH.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

558. Pain Models: Physiology

Theme D: Sensory and Motor Systems

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

8:00 XX10 **558.01** Cannabinoids differentially modulate behavioral responses to nociceptive vs non-nociceptive stimuli. T. L. RASMUSSEN*; B. D. BURRELL. *Univ. of South Dakota.*

9:00 XX11 **558.02** Differential effects of GABA in modulating nociceptive vs. non-nociceptive synapses. Y.; B. D. BURRELL. *Univ. of South Dakota.*

10:00 XX12 **558.03** Medial septum GABAergic mechanisms preferentially modulate formalin-induced moment-to-moment agitation and aversion. S. ANG*; A. T. H. LEE; Z. M. ARIFFIN; L. NG; A. VIPIN; C. LOW; S. KHANNA. *Natl. Univ. of Singapore, Natl. Univ. of Singapore, Natl. Univ. of Singapore, Natl. Univ. of Singapore.*

11:00 YY1 **558.04** Increase in spontaneous saphenous nerve activity after oxaliplatin administration: a possible index of spontaneous dysesthesia. T. ANDOH*; S. MIYAO; P. GAUCHAN; Y. KURAISHI. *Univ. Toyama.*

8:00 YY2 **558.05** ● Bidirectional virally-mediated optogenetic control of pain. S. M. IYER*; K. L. MONTGOMERY; C. L. TOWNE; S. Y. LEE; C. RAMAKRISHNAN; K. DEISSEROTH; S. L. DELP. *Stanford Univ.*

9:00 YY3 **558.06** Optogenetic silencing of peripheral pain pathways in transgenic mice. I. DAOU*; A. R. ASE; J. S. WIESKOPF; J. S. MOGIL; P. SEGUELA. *Montreal Neurolog. Institute, McGill Univ., McGill Univ.*

10:00 YY4 **558.07** Neuropeptide FF receptor type 2 transgenic mice exhibit hyperreactivity to nociceptive stimulation. Y. LIN*; H. LIU; H. LI; J. CHEN. *Chang Gung Univ., Chang Gung Univ., Oregon Inst. of Technol.*

11:00 YY5 **558.08** Validation of tonic painful EEG during cold pressor test. M. GRAM*; C. GRAVERSEN; S. S. OLESEN; A. E. OLESEN; A. M. DREWES. *Mech-Sense.*

8:00 YY6 **558.09** Neuropathic pain and the PFC: Dysregulation of the intercellular signaling pathways regulating pyramidal neuron excitability. B. HARLAN*; H. HUGHES; R. WANG; T. SHIPPENBERG; A. RIEGEL. *Med. Univ. of South Carolina, IUPUI, NIH.*

9:00 YY7 **558.10** Electrophysiological characterisation of projection neurons in naive and nerve-injured rats. D. ROBERTS*; H. REES. *Pfizer Neusentis.*

10:00 YY8 **558.11** ● Application of Mdr1a/b-Bcrp knockout mice to evaluate role of CNS penetration to antinociceptive efficacy. S. K. JOSHI*; C. ZHU; L. LEWIS; C. ZHONG; D. GAUVIN; J. MIKUSA; C. ZHAN; C. KALVASS; A. BANNON. *AbbVie Inc.*

11:00 YY9 **558.12** Characterising the role of Langerhans cells in models of chronic pain conditions. M. THAKUR*; F. DENK; S. MCMAHON. *King's Col. London.*

8:00 YY10 **558.13** Modulation of pain by wnt signaling molecules in an experimental neuropathic pain model. J. YOON; K. SUNG; S. LEE*. *Hanyang Univ.*

9:00 YY11 **558.14** Modulation of neuronal hyperactivity in ventral **POSTER**olateral nucleus by electrical stimulation of anterior cingulate cortex in neuropathic pain model rats. S. RYU*; J. CHOI; J. KIM; C. IM; J. CHANG; H. SHIN; K. KIM. Yonsei Univ., Yonsei Univ. Col. of Med., Col. of Medicine, Hallym Univ.

10:00 YY12 **558.15** Pharmacological characterization using Ca^{2+} imaging in *Ex vivi* spinal cord slices during inflammatory or multiple sclerosis pain. S. DOOLEN*; G. CORDER; T. IANNITTI; B. K. TAYLOR. *Univ. of Kentucky, Univ. of Leeds.*

11:00 ZZ1 **558.16** Characterization of nociceptive sensitization in larval Manduca sexta. M. FUSE*; E. MERCHASIN; M. MCMACKIN; K. IWASAKI; L. RAMOS; C. MOFFATT. *San Francisco State Univ., UC Davis, Univ. of Michigan.*

8:00 ZZ2 **558.17** Chronic administration of the cannabinoid agonist, WIN 55,212-2, reduces hyperalgesia and nociceptor sensitization produced by cisplatin. M. L. UHELSKI*; C. HARDING-ROSE; D. SIMONE. *Univ. of Minnesota Twin Cities, Univ. of Minnesota.*

9:00 ZZ3 **558.18** Vesicular Glutamate Transporter 2 and Aspartate Aminotransferase alterations in rat DRG neurons during adjuvant-induced arthritis. B. BOLT*; K. E. MILLER. *Oklahoma State Univ. Ctr. For Hlth. Sci.*

10:00 ZZ4 **558.19** Effects of distraction and suggestions with and without hypnotic induction on spinal-motor, autonomic and cortical pain-evoked responses. A. STREFF*; B. HOUZE; A. LEHMANN; M. PICHE; P. RAINVILLE. *CRIUGM, Univ. de Montreal, BRAMS, Univ. de Trois-Rivieres, Univ. de Montreal.*

POSTER

559. Motor Pattern Generation: Neuromodulation

Theme D: Sensory and Motor Systems

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

8:00 ZZ5 **559.01** Computational model of *in vitro* sigh generation. N. TOPORIKOVA*; A. ZAIDI; M. THOBY-BRISSON. *Washington and Lee Univ., Washington and Lee Univ., Univ. Bordeaux.*

9:00 ZZ6 **559.02** Astrocytes determine conditions for rhythmogenesis in a trigeminal sensori-motor circuit involved in mastication. P. C. MORQUETTE*; D. VERDIER; R. ROBITAILLE; A. KOLTA. *Univ. De Montreal, Univ. De Montreal.*

10:00 ZZ7 **559.03** Stimulation of the trigeminal sensory tract causes bursting and calcium depletion in dorsal neurons of the trigeminal main sensory nucleus. P. A. KADALA*; D. VERDIER; A. KOLTA. *Univ. De Montréal.*

11:00 ZZ8 **559.04** The effect of ectopic axonal spiking on synaptic dynamics. N. DAUR*; Y. ZHANG; F. NADIM; D. BUCHER. *Univ. of Florida, Whitney Lab. For Marine Biosci., NJIT and Rutgers Univ., NJIT.*

8:00 ZZ9 **559.05** Modulatory masking: Activation of distinct currents in a single cell supports temporary reversals of response character in a multi-functional network. M. H. PERKINS*; E. C. CROPPER; K. R. WEISS. *Mt. Sinai Sch. of Med.*

9:00 ZZ10 **559.06** Long-term regulation of excitability in the gastric mill network of the crab stomatogastric ganglion. A. W. HAMOOD*; S. HADDAD; E. MARDER. *Brandeis Univ.*

10:00 ZZ11 **559.07** Cloning and sequencing of prepropeptide cDNAs that encode neuropeptides involved in feeding-related behaviors in the pond snail, Helisoma trivolvis. N. W. KLECKNER*; C. O'LEARY; J. BERGERON; A. HULSE; M. ARSNOW; D. BIRKHEAD; G. BORLAND; P. DIXON; H. FISHER; C. GARVEY; J. MEYO; V. JARVIS; A. SRIDHAR; J. D. SATO. *Bates Col., Bates Col., Bates Col., Bates Col., Manzanar Project Fndn.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 ZZ12 **559.08** Modulator induced changes in motor patterns are temperature compensated. S. A. HADDAD*; E. MARDER. *Brandeis Univ.*

8:00 ZZ13 **559.09** Sacral muscarinic-acetylcholine receptors mediate the cholinergic modulation of locomotor-related motor output produced by sacrocaudal afferent stimulation in the neonatal rat spinal cord. L. ANGLISTER; E. FINKEL; A. ETLIN; M. CHERNIAK; Y. MOR; A. LEV-TOV*. *Dept. Med. Neurobiol., IMRIC, Hebrew Univ. Sch. of Med.*

9:00 ZZ14 **559.10** Circuit state-dependent responses to sensory feedback and hormonal modulation. J. C. RODRIGUEZ*; M. P. NUSBAUM. *Perelman Sch. of Med, Univ. of Pennsylvania, Perelman Sch. of Med, Univ. of Pennsylvania.*

10:00 ZZ15 **559.11** Dopaminergic contribution to locomotion in the neonatal and adult mouse. S. A. SHARPLES*; J. HUMPHREYS; S. A. DHOOPAR; N. DELALOYE; A. KRAJACIC; S. NAKANISHI; P. J. WHELAN. *Univ. of Calgary, Univ. of Calgary.*

11:00 ZZ16 **559.12** Opposing effects of serotonin at different sites within the same neuron. J. BACQUE-CAZENAVE; F. A. ISSA; D. CATTAERT; D. H. EDWARDS*. *Univ. of Bordeaux 1, Georgia State Univ., Univ. of Bordeaux 1 and Bordeaux 2.*

8:00 ZZ17 **559.13** ▲ The Huber-Braun model as a candidate for modeling central pattern generators. Q. SKILLING*; E. ROSA, JR.; W. STEIN. *Illinois State Univ., Illinois State Univ., Illinos State Univ.*

9:00 ZZ18 **559.14** Long term effects of Fentanyl on postnatal breathing patterns. L. C. MCKAY*; A. KENNEDY. *GLASGOW UNIVERSITY.*

10:00 ZZ19 **559.15** Do sympathetic preganglionic neurons modulate locomotion by intraspinal activity-dependent release of nitric oxide? P. LOSEY*; S. HOCHMAN. *Emory Univ. Sch. of Med.*

11:00 ZZ20 **559.16** Modulation of the lobster cardiac neuromuscular system: Roles and mechanisms of two related neuropeptides. P. S. DICKINSON*; A. M. CALKINS; J. S. STEVENS. *Bowdoin Coll.*

8:00 ZZ21 **559.17** Functional implications of distinct transmitter phenotypes in higher-order interneurons. J. WU; M. SINISCALCHI; N. WANG; J. GU; F. S. VILM; E. C. CROPPER; K. R. WEISS; J. JING*. *Mt Sinai Med. Ctr., Sch. of Life Sci.*

9:00 ZZ22 **559.18** Distinct regulatory mechanisms of ionic conductances in a central pattern generating network. D. SALLOUM*; J. GOLOWASCH. *NJIT.*

10:00 ZZ23 **559.19** The effects of neuromodulation on output and synchrony in electrically coupled motor neurons with variable intrinsic conductances in the crab cardiac ganglion. B. J. LANE*; J. L. RANSDELL; P. SAMARTH; S. S. NAIR; D. J. SCHULZ. *Univ. of Missouri - Columbia, Univ. of Missouri - Columbia, Univ. of Missouri - Columbia.*

11:00 ZZ24 **559.20** Robust cardiac ganglion network output with large cells having variable conductances. P. S. SAMARTH*; J. L. RANSDELL; D. J. SCHULZ; S. S. NAIR. *Univ. of Missouri Columbia, Univ. of Missouri Columbia.*

8:00 ZZ25 **559.21** Cell-type specific neuropeptide receptor transcript levels are correlated with physiological response threshold. V. J. GARCIA*; S. TEMPORAL; D. J. SCHULZ; D. BUCHER. *Univ. of Florida, Whitney Lab. For Marine Biosci., Aix Marseille Univ., Univ. of Missouri - Columbia, New Jersey Inst. of Technol. and Rutgers Univ.*

9:00 ZZ26 **559.22** Removal of neuromodulation increases receptor transcript abundance and subsequent response to a peptide neuromodulator in lp neurons of the crab stomatogastric ganglion. K. LETT*; V. J. GARCIA; D. BUCHER; D. J. SCHULZ. *Univ. of Missouri-Columbia, Univ. of Florida- St. Augustine.*

10:00 AAA1 **559.23** The integrities of spontaneous and hunting locomotor repertoires of zebrafish larvae are dissociably dependent on the conserved dopaminergic diencephalospinal tract. A. M. LAMBERT*; M. A. MASINO. *Univ. of Minnesota- Twin Cities.*

11:00 AAA2 **559.24** Substance P depolarizes lamprey spinal cord neurons by inhibiting background K+ channels. C. T. PEREZ*; R. H. HILL; S. GRILLNER. *Karolinska Inst.*

8:00 AAA3 **559.25** Longitudinal analysis of the cholinergic neuromodulatory system in the spinal lumbar enlargement of SOD1 mutant mice. L. MILAN; G. COURTAND; L. CARDOIT; F. MASMEJEAN; M. GARRET; S. S. BERTRAND*. *INCIA CNRS UMR5287.*

9:00 AAA4 **559.26** Modulation of axonal spike initiation in a sensory neuron by descending modulatory projection neurons. C. STAEDELE*; W. STEIN. *Illinois State Univ., Ulm Univ.*

10:00 AAA5 **559.27** Modulation of the voltage dependence of an electrical coupling by a hyperpolarization-activated inward current. L. Y. BRAUN*; A. M. YARGER; W. STEIN. *Ulm Univ., Illinois State Univ.*

11:00 AAA6 **559.28** Mapping location and activity patterns of modulatory projection neurons in the stomatogastric nervous system of the crab Cancer borealis. C. J. GOLDSMITH*; W. STEIN. *Illinois State Univ.*

POSTER

560. Motor Pattern Generation: Vertebrate Models I

Theme D: Sensory and Motor Systems

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

8:00 AAA7 **560.01** ▲ Effects of hypocretin antagonist interaction with isoflurane anesthesia on locomotor behavior in mice. A. J. CASTANEDA*; K. BOWYER; R. RYDEN; K. D'ANNA-HERNANDEZ. *California State Univ. San Marcos, California State Univ. San Marcos.*

9:00 AAA8 **560.02** Effects of dorsal root stimulation on locomotor network output and V2a interneuron activity in isolated mouse spinal cord. S. DIETZ*; N. A. SHEVTSOVA; I. A. RYBAK; R. M. HARRIS-WARRICK. *Cornell Univ., Drexel Univ. Col. of Med.*

10:00 AAA9 **560.03** Characterization of rostral medullary and pontine reticulospinal projections in the late fetal and neonatal mouse. M. S. SIVERTSEN; M. PERREAULT; J. C. GLOVER*. *Univ. Oslo, Emory Univ.*

11:00 AAA10 **560.04** Electrophysiological and molecular characterisation of long, descending propriospinal neurons in mice. J. FLYNN*; M. GOULDING; R. J. CALLISTER; B. A. GRAHAM. *Univ. of Newcastle, Hunter Med. Res. Inst., Salk Inst.*

8:00 AAA11 **560.05** Directional control of locomotion in the touch-evoked escape behavior in zebrafish. K. ASAKAWA*; G. ABE; A. MUTO; K. KAWAKAMI. *Natl. Inst. of Genet., SOKENDAI.*

9:00 AAA12 **560.06** Visuomotor integration in the motor cortex during skilled locomotion. E. E. STOUT*; I. N. BELOOZEROVA. *Barrow Neurol Inst.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

10:00 AAA13 **560.07** Locomotor rhythmogenesis in the caudal hindbrain of the lamprey. J. T. BUCHANAN*; S. BLEL; M. EVANS; M. M. MCLOED. *Marquette Univ., Marquette Univ.*

11:00 AAA14 **560.08** Brainstem control of trunk and hindlimb motoneurons during fictive locomotion in the neonatal mouse. C. JEAN-XAVIER; M. PERREAULT*. *Emory Univ. Sch. Med.*

8:00 AAA15 **560.09** Optogenetic activation of V2a interneurons produces locomotion in zebrafish. J. AUSBORN*; E. EKLÖF LJUNGGREN; S. HAUPT; A. EL MANIRA. *Karolinska Inst.*

9:00 AAA16 **560.10** Functional connectomics of fast and slow locomotor microcircuits in adult zebrafish. K. AMPATZIS*; J. SONG; J. AUSBORN; A. EL MANIRA. *Karolinska Institutet, Dept. of Neurosci.*

10:00 AAA17 **560.11** Speed dependent shifts in the ratio of excitation to inhibition shape motoneuron recruitment in larval zebrafish. S. KISHORE*; M. W. BAGNALL; D. L. MCLEAN. *Northwestern Univ., Northwestern Univ.*

11:00 AAA18 **560.12** Motoneuron excitability shapes vision-based action selection in the spinal cord. W. WANG*; D. L. MCLEAN. *Northwestern Univ.*

8:00 AAA19 **560.13** Spinal axial microcircuits provide evolutionary template for limb control. M. W. BAGNALL*; Y. KIMURA; S. HIGASHIJIMA; D. L. MCLEAN. *Northwestern Univ., Natl. Inst. for Physiological Sci.*

9:00 AAA20 **560.14** Dendritic filopodial dynamics of motoneurons in larval zebrafish during the day and night. J. V. DIPIETRO*, JR; J. R. FETCHO. *Cornell Univ., Cornell Univ.*

10:00 AAA21 **560.15** Functional organization of post-migratory facial motor neurons in zebrafish. K. L. MCARTHUR*; J. R. FETCHO. *Cornell Univ.*

11:00 AAA22 **560.16** *In vivo* kinetics of glycine receptor re-distribution. D. M. CHOW*; J. R. FETCHO. *Cornell Univ.*

8:00 AAA23 **560.17** Optogenetic rostro-caudal inhibition of movement without inhibition of afference in the spinal cord of mice. V. CAGGIANO*; M. SUR; E. BIZZI. *MIT.*

9:00 AAA24 **560.18** ▲ Localization of glycinergic neurons selectively activated during paradoxical (REM) sleep in the rat: their potential role in muscle atonia. S. VALENCIA GARCIA*; O. CLÉMENT; P. A. LIBOUREL; S. ARTHAUD; P. H. LUPPI; P. FORT. *Lyon Neurosci. Res. Ctr.*

10:00 AAA25 **560.19** Bursts of spikes driven by T-type calcium channels occur in motor but not visual thalamocortical neurons in brain slices. H. R. KIM; S. Z. HONG; C. D. FIORILLO*. *KAIST.*

11:00 AAA26 **560.20** Laser ablation of Dbx1 pre-Botzinger interneurons impairs and then precludes respiratory rhythm generation. C. A. DEL NEGRO*; X. WANG; M. C. D. PICARDO; J. A. HAYES. *The Col. of William & Mary, Inst. de Neurobiologie Alfred Fessard.*

8:00 BBB1 **560.21** Ontogeny and plasticity of GABAergic inhibition in respiratory control. E. A. MACMURRAY*; C. M. CARTAGENA DE JESUS; B. E. TAYLOR. *Univ. of Alaska Fairbanks.*

9:00 BBB2 **560.22** The RTN and pFRG are functionally separate nuclei in the control of respiration. R. T. HUCKSTEPP*; K. P. CARDOZA; L. E. HENDERSON; J. L. FELDMAN. *UCLA.*

10:00 BBB3 **560.23** Functional loss of peripheral nerve conduction following embryonic pyridoxine administration in chick. Y. FEDOROVICH*; A. A. SHARP. *Southern Illinois Univ. Sch. of Med. Carbondale, Southern Illinois Univ. Sch. of Med. Carbondale.*

POSTER

561. Cerebellum: Anatomy and *In Vitro* Studies

Theme D: Sensory and Motor Systems

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

8:00 BBB4 **561.01** Similarities and differences in the neuronal wiring of the cerebellar nuclei of rodents and primates. S. HAMODEH; F. R. SULTAN*. *Univ. Tuebingen.*

9:00 BBB5 **561.02** Form and function in the cerebellar noradrenergic and serotonergic systems. M. LONGLEY; C. H. YEO*. *Univ. Col. London.*

10:00 BBB6 **561.03** The cerebellar nucleocortical tract includes a corollary discharge pathway in mouse. B. HOUCK*; A. L. PERSON. *Univ. of Colorado Anschutz Med. Campus, Univ. of Colorado Sch. of Med.*

11:00 BBB7 **561.04** ▲ Parasagittal organization of visual mossy fiber projections from the nucleus lentiformis mesencephali to folium VIII of the pigeon cerebellum in relation to Zebrin II stripes. J. P. LAM*; D. J. GRAHAM; C. GUTIERREZ-IBANEZ; D. R. WYLIE. *UBC, Univ. of Alberta, Univ. of Alberta.*

8:00 BBB8 **561.05** Heterogeneity of calretinin expression in the avian cerebellar cortex of pigeons and relationship with zebrin II. D. WYLIE*; M. JENSEN; C. GUTIERREZ-IBANEZ; D. J. GRAHAM; A. N. IWANIUK. *Univ. of Alberta, Univ. of Alberta, Univ. of Lethbridge.*

9:00 BBB9 **561.06** Olfactory stimulation by airborne scents induces c-Fos expression in the vermis cerebellum of sexually experienced male rats. P. GARCIA-BAÑUELOS; Z. HERNANDEZ-BRIONES; G. HERRERA-MEZA; G. ARANDA-ABREU; P. CARRILLO; M. HERNANDEZ; G. CORIA-AVILA; J. MANZO; L. I. GARCIA*. *Ctr. de Investigaciones Cerebrales, Univ. Veracruzana.*

10:00 BBB10 **561.07** Fine scale correspondence between the cerebellar microzones and the aldolase C compartments in mice. S. TSUTSUMI*; M. YAMAZAKI; K. SAKIMURA; K. KITAMURA; M. KANO. *Univ. of Tokyo, Niigata Univ.*

11:00 BBB11 **561.08** Mapping cerebellar circuit function in zebrafish (Danio rerio) using electrophysiology and calcium imaging. J. HSIEH; F. A. ISSA; J. WAN; J. C. JEN; D. M. PAPAZIAN*. *Geffen Sch. Med. UCLA.*

8:00 BBB12 **561.09** Projections from the spinal cord to the cerebellar cortex in the mouse. G. SENGUL*; Y. FU; Y. YU; G. PAXINOS. *Ege Univ. Sch. Med., Neurosci. Res. Australia, The Univ. of New South Wales, The First Affiliated Hosp. of Harbin Med. Univ.*

9:00 BBB13 **561.10** Lower level of inhibitory synaptic transmission in the vestibulo cerebellum. C. RYU; J. KIM; S. KIM*. *Seoul Natl. Univ. Coll Med.*

10:00 BBB14 **561.11** A granule cell - golgi cell feedback circuit in the cochlear nucleus. D. B. YAEGER*; L. O. TRUSSELL. *Oregon Hlth. and Sci. Univ., Oregon Hlth. & Sci. Univ.*

11:00 BBB15 **561.12** Cerebellar control of electronic coupling in the inferior olive I: Anatomy of the nucleo-olivary projection. M. Y. UUSISAARI*; Y. LEFLER; Y. YAROM. *Hebrew Univ. of Jerusalem, Israel, Hebrew Univ. of Jerusalem, Israel.*

8:00 BBB16 **561.13** Cerebellar control of electronic coupling in the inferior olive II: Optogenetic activation of the nucleo-olivary pathway modulates coupling coefficient and sub-threshold oscillations. Y. LEFLER*; M. Y. UUSISAARI; Y. YAROM. *Hebrew Univ. of Jerusalem.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 BBB17 **561.14** Visualization of the Purkinje neuron to cerebellar nuclei anatomical connectivity using a viral approach. H. NEDELESCU*; G. ARBUTHNOTT; B. KUHN; E. DE SCHUTTER; Y. YAROM; M. Y. UUSISAARI. *Okinawa Inst. of Sci. and Technol. Grad. Univ., Univ. of Antwerp, Hebrew Univ. of Jerusalem.*

10:00 BBB18 **561.15** Interconnections between the lateral cerebellum and the prefrontal cortex. A. C. BOSTAN*; R. P. DUM; P. L. STRICK. *Univ. of Pittsburgh, VA Med. Ctr.*

11:00 BBB19 **561.16** Projections from the cerebellar nuclei to the cerebellar cortex: A possible feedback to golgi cells in the cerebello-olivary loop. L. ANKRI*; Y. YAROM; M. Y. UUSISAARI. *Hebrew Univ. of Jerusalem.*

8:00 BBB20 **561.17** The cytoarchitecture and neurochemical profile of the rat deep cerebellar nuclei with a focus upon nucleus interpositus. J. P. CARD*; D. W. VOLK; E. J. SENGUPTA; N. Z. KHAN; G. J. WOJACZYNSKI. *Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

9:00 BBB21 **561.18** Model of interactions between spinal border cells and cerebellar granule cells. A. SPANNE*; P. GEBOREK; F. BENGTSSON; H. JÖRNTELL. *Lund Univ.*

10:00 BBB22 **561.19** NanoCAGE analysis of neuronal translatome with subcellular resolution. T. LAUNEY*; A. KRATZ; P. BEGUIN; M. KANEKO; T. CHIMURA; A. SUZUKI; N. BERTIN; R. VIGOT; P. CARNINCI; C. PLESSY. *Brain Sci. Inst. (RIKEN), RIKEN.*

11:00 BBB23 **561.20** A novel transgenic model for protecting motoric function from the repeated use of benzodiazepine. M. E. JUNG*; D. B. METZGER. *Univ. N Texas Hlth. Sci. Ctr.*

8:00 BBB24 **561.21** The mechanisms of late-onset synaptic responses in a realistic model of Unipolar Brush Cells. S. SUBRAMANIYAM; F. LOCATELLI; P. PERIN; S. MASETTO; S. SOLINAS; E. D'ANGELO*. *Univ. of Pavia, Consorzio Interuniversitario per le Scienze Fisiche della Materia (CNISM), Via Bassi 6, Brain Connectivity Center, Inst. Neurologico IRCCS C. Mondino, Via Mondino 2.*

9:00 BBB25 **561.22** Glutamate-activated currents in unipolar brush cells. C. GLOGOWSKI*; L. TRUSSELL. *Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*

10:00 BBB26 **561.23** The TRPC3 moonwalker gain-of function mutation is accompanied by selective and complete ablation of type II unipolar brush cells. J. KIM*; G. SEKERKOVÁ; E. B. E. BECKER; J. HARTMANN; L. BIRNBAUMER; E. MUGNAINI; M. MARTINA. *Northwestern University, Feinberg Sch. of Med., Northwestern University, Feinberg Sch. of Med., Univ. of Oxford, Tech. Univ. of Munich, NIEHS.*

11:00 CCC1 **561.24** Early electrophysiological impairment of cerebellar Purkinje cells in the moonwalker mouse. M. J. NIGRO*; G. SEKERKOVA; E. MUGNAINI; M. MARTINA. *Northwestern Univ.*

8:00 CCC2 **561.25** Classification of fastigial/medial cerebellar nucleus neurons by quantitative single-cell gene expression profiling. H. FUJITA*; T. KODAMA; S. GUERRERO; S. DU LAC. *The Salk Inst. for Biol. Studies.*

9:00 CCC3 **561.26** Lobule-Specific differences of hyperpolarization-activated current and rebound depolarization in cerebellar Purkinje cell. J. SHIN*; C. KIM; J. KIM; S. KIM. *Seoul Natl. Univ. Col. of Med.*

POSTER

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

Theme D: Sensory and Motor Systems

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

8:00 CCC4 **562.01** Postural control during transient floor translation while standing with the leg and trunk fixed. N. KIYOTA*; K. FUJIWARA; M. MAEKAWA; M. IREI. *Osaka Hlth. Sci. Univ., Kanazawa Univ.*

9:00 CCC5 **562.02** Multi-muscle control of postural muscles: Common neural inputs. A. SANTOS*; C. LEONARD; A. DEGANI; V. CARDOSO; A. MAGALHAES. *The Univ. of Montana, CNSAP, Federal Univ. of Piaui.*

10:00 CCC6 **562.03** Statistical analysis of quiet stance sway in 2-D. A. BAKSHI*; P. DIZIO; J. R. LACKNER. *Ashton Graybiel Spatial Orientation Laboratory, Brandeis Univ., Volen Natl. Ctr. for Complex Systems, Brandeis Univ.*

11:00 CCC7 **562.04** Muscle activation patterns in very slow walking are different from those of a natural gait. R. MURAKAMI*; T. KURAYAMA; Y. GOTO; Y. TANI; Y. TADOKORO; C. KONDO; K. SASAYA; D. MATSUZAWA; E. SHIMIZU; J. NISHII; K. KONDO; Y. OTAKA. *Tokyo Bay Rehabil. Hosp., Chiba Univ. Grad. Sch. of Med., Yamaguchi Univ. Grad. Sch. of Sci. and Engin., Keio Univ. Sch. of Med.*

8:00 CCC8 **562.05** A comparison of movement characteristics between kneeling gait and regular gait after hemiplegic stroke. Y. GOTO*; T. KURAYAMA; R. MURAKAMI; Y. TADOKORO; Y. TANI; K. SASAYA; C. KONDO; K. AIMOTO; D. MATSUZAWA; E. SHIMIZU; K. KONDO; Y. OTAKA. *Tokyo Bay Rehabil. Hosp., Chiba Univ. Grad. Sch. of Med., Natl. Ctr. for Geriatrics and Gerontology, Keio Univ. Sch. of Med.*

9:00 CCC9 **562.06** How dysfunctional is gait asymmetry? Association between metabolic cost and asymmetries in post-stroke walking. J. M. FINLEY*; A. J. BASTIAN. *Johns Hopkins Univ.*

10:00 CCC10 **562.07** A marching-walking hybrid induces adaptation of step symmetry on a treadmill. A. LONG*; J. FINLEY; A. BASTIAN. *Johns Hopkins Univ., Kennedy Krieger Inst.*

11:00 CCC11 **562.08** Lateral stability for single and multiple step recovery responses to lateral perturbations of standing balance in older adults. M. FUJIMOTO*; W. BAIR; M. PRETTYMAN; B. BEAMER; M. ROGERS. *Univ. of Maryland Baltimore.*

8:00 CCC12 **562.09** Developmental changes in activation patterns of postural muscles during bilateral arm flexion. T. KIYOTA*; K. FUJIWARA; K. KUNITA; K. ANAN; C. YAGUCHI. *Fac. of Humanities, Sapporo Intl. Univ., Kanazawa Univ., Sapporo Intl. Univ., Hokkaido Bunkyo Univ.*

9:00 DDD1 **562.10** Alterations in dynamic postural stability with exhaustive repetitive sit-to-stand exercise. M. BRYANTON*; M. BILODEAU. *Univ. of Ottawa, Univ. of Ottawa.*

10:00 DDD2 **562.11** Activation differences during internal and external rotational knee moments during standing target matching tasks in healthy and ACL injured patients. A. S. LANIER; K. MANAL; T. S. BUCHANAN*. *Univ. of Delaware.*

11:00 DDD3 **562.12** Whole-body controlled video games improve dynamic stability in children with degenerative cerebellar disease. W. ILG*; C. SCHATTON; B. MUELLER; N. LUDOLPH; L. SCHOELS; M. A. GIESE; M. SYNOFZIK. *Ctr. For Integrative Neurosci., Hertie Inst. for Clin. Brain Res.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 DDD4 **562.13** Assessment of Forces in the palm of the hand in amputee football players during crutch walking, running and shooting. S. UZUN*; N. RAMAZANOGLU; Y. TATAR; F. CAMLIGUNEY; C. KARAGOZOGLU; A. POURMOGHADDAM. *Marmara Univ., Univ. of Texas Hlth. Sci. Ctr. at Houston.*

9:00 DDD5 **562.14** Differential effect of chronic undernutrition on the postnatal development of gait in male and female wistar rats: A kinematic study. V. MARTÍNEZ-ÁLVAREZ; J. GUADARRAMA; B. SEGURA-ALEGRÍA; M. ALVARADO*; I. JIMÉNEZ-ESTRADA. *Neuroetology Inst., CINVESTAV-IPN, UNAM-FES Iztacala.*

10:00 DDD6 **562.15** The neural control of joint state in the rat. M. C. TRESCH*; B. RELLINGER; T. SANDERCOCK. *Northwestern Univ., Northwestern Univ., Northwestern Univ.*

11:00 DDD7 **562.16** ▲ Altered cortical excitability during trunk postural control. S. GOTTARDI*; S. CHIOU; P. H. STRUTTON. *Imperial Col. London.*

8:00 DDD8 **562.17** Head control is affected by trunk and neck bracing during gait. S. MORRISON*; K. KELLERAN; D. RUSSELL. *Old Dominion Univ., Old Dominion Univ., Old Dominion Univ.*

9:00 DDD9 **562.18** Investigating lower extremity functioning via frontal plane movement variability asymmetries during landing. A. D. NORDIN*; J. S. DUFEK. *Univ. of Nevada, Las Vegas.*

10:00 DDD10 **562.19** Control of landing during forward-induced stepping for balance recovery in healthy young adults. M. INACIO*; R. CREATH; M. ROGERS. *Univ. of Maryland Sch. of Med.*

11:00 DDD11 **562.20** Kinematic strategies underlying step responses to postural perturbations. R. A. MCGOVERN; J. CORTES-RAMIREZ; P. GREENE; G. M. MCKHANN II; P. MAZZONI*. *Columbia Univ., Columbia Univ.*

8:00 DDD12 **562.21** Postural coordination pattern as a function of scaling the surface of support dynamics. J. KO*; J. H. CHALLIS; K. M. NEWELL. *The Pennsylvania State Univ.*

9:00 EEE1 **562.22** Inter-joint dynamic interaction during human quiet standing examined by induced acceleration analysis. S. SASAGAWA*; M. SHINYA; K. NAKAZAWA. *Grad. Sch. of Arts and Sciences, The Univ. of Tokyo, Japan Society for the Promotion of Sci.*

POSTER

563. Voluntary Motor Control: Stroke

Theme D: Sensory and Motor Systems

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

8:00 EEE2 **563.01** ● Perturbation motor corrections correlate with features of reaching and proprioception impairments post-stroke. T. BOURKE*; S. D. BAGG; S. P. DUKELOW; K. E. NORMAN; S. H. SCOTT. *Queens Univ., Queen's Univ., Univ. of Calgary, Queen's Univ., Queen's Univ.*

9:00 EEE3 **563.02** Using clinical and robotic assessment tools to examine the feasibility of pairing tDCS with standard physical therapy in patients with stroke and TBI. J. A. MIDDLETON; D. LIUZZO; R. NEWMAN-NORLUND; S. L. FRITZ; T. M. HERTER*. *Univ. of South Carolina.*

10:00 EEE4 **563.03** ● Comparison of post-stroke position sense and kinaesthesia using robotics. J. A. SEMRAU*; T. M. HERTER; S. H. SCOTT; S. P. DUKELOW. *Univ. of Calgary, Univ. of South Carolina, Queen's Univ.*

11:00 EEE5 **563.04** ● The neural correlates of position sense after stroke. S. FINDLATER*; J. A. DESAI; J. A. SEMRAU; T. M. HERTER; S. H. SCOTT; S. P. DUKELOW. *Univ. of Calgary, Univ. of South Carolina, Queen's Univ.*

8:00 EEE6 **563.05** ● Identification of brain areas associated with impaired kinaesthesia following stroke using robotics and voxel-based lesion symptom mapping. J. M. KENZIE*; J. A. SEMRAU; S. E. FINDLATER; J. A. DESAI; T. M. HERTER; S. H. SCOTT; S. P. DUKELOW. *The Univ. of Calgary, Univ. of South Carolina, Queen's Univ.*

9:00 EEE7 **563.06** Influence of elbow angular spasticity zones on one-trial motor learning in chronic stroke. S. K. SUBRAMANIAN*; A. G. FELDMAN; M. F. LEVIN. *Sch. of Physical and Occup. Therapy, McGill Univ., Feil Oberfeld JRH/CRIR Res. Centre, Jewish Rehabil. Hosp. site of the Ctr. for Interdisciplinary Res. In Rehabil. of Greater Montreal, Dept. of Physiology, Univ. de Montréal.*

10:00 EEE8 **563.07** Altered obstacle avoidance behaviour in individuals with good arm recovery after stroke. M. C. BANINA*; B. J. MCFADYEN; M. F. LEVIN. *McGill Univ., Ctr. for Interdisciplinary Res. in Rehabil. of Greater Montreal, Univ. Laval, Ctr. Interdisciplinaire de Recherche en Réadaptation et Intégration Sociale.*

11:00 EEE9 **563.08** Responsiveness of a new clinical measure of spasticity. A. A. MULLICK; A. K. BLANCHETTE; R. GUBEREK; C. BEAUDOIN; P. S. ARCHAMBAULT*; M. F. LEVIN. *McGill Univ., Feil and Oberfeld Res. Center, Jewish Rehabil. Hospital, Ctr. for Interdisciplinary Res. in Rehabil. (CRIR), Univ. Laval.*

8:00 EEE10 **563.09** Validity and reliability of the tonic stretch reflex threshold as a measure of ankle plantarflexor spasticity after stroke. A. K. BLANCHETTE*; K. MOÏN-DARBARI; A. A. MULLICK; C. BEAUDOIN; M. F. LEVIN. *Univ. Laval, Feil and Oberfeld Res. Center, Jewish Rehabil. Hospital, Ctr. for Interdisciplinary Res. in Rehabil. (CRIR), McGill Univ., McGill Univ.*

9:00 EEE11 **563.10** Priming physiotherapy with Theta Burst Stimulation enhances upper limb function in chronic stroke patients. S. J. ACKERLEY*; W. D. BYBLOW; P. A. BARBER; C. M. STINEAR. *Univ. of Auckland, Univ. of Auckland, Univ. of Auckland.*

10:00 EEE12 **563.11** Does tractography improve prediction of individual patient's motor recovery after stroke? J. P. COXON*; C. M. STINEAR; M. A. PETOE; P. A. BARBER; S. S. ANWAR; W. D. BYBLOW. *Univ. of Auckland, Univ. of Auckland, ADHB.*

11:00 EEE13 **563.12** A semi-automated tool to study limb kinematics of reaching in a mouse model of stroke. S. MICERA*; S. LAI; A. PANARESE; C. SPALLETTI; C. ALIA; A. GHIONZOLI; M. MAINARDI; M. CALEO. *Ecole Polytechnique Federale De Lausanne, Scuola Superiore Sant'Anna, CNR Neurosci. Inst.*

8:00 EEE14 **563.13** Quantifying post-stroke movement impairment using motion capture to automate the Wolf Motor Function Test. E. V. OLESH*; S. YAKOVENKO; V. GRITSENKO. *West Virginia Univ., West Virginia Univ.*

9:00 EEE15 **563.14** Distribution analysis reveals individual patterns of motor deficits. J. L. PATTON; F. C. HUANG*. *Univ. of Illinois at Chicago, Rehabil Inst. of Chicago.*

10:00 EEE16 **563.15** Towards measurement of disordered motor networks in stroke using electroencephalography-based effective connectivity methods. T. E. WARD*; M. MIYAKOSHI; G. CRUZ; J. S. CHOE; K. SCHLICK; T. HEMMEN; S. MAKEIG. *Univ. of California San Diego, Natl. Univ. of Ireland Maynooth, Univ. of Glasgow, Univ. of California San Diego.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 EEE17 **563.16** ● Bilateral priming accelerates recovery of upper limb function at the sub-acute stage after stroke. W. D. BYBLOW*; C. M. STINEAR; M. A. PETOE; P. A. BARBER; S. ANWAR. *Univ. of Auckland, Univ. of Auckland, Rehab Plus.*

8:00 EEE18 **563.17** Simulated human arm motion drives perception-action learning in post-stroke individuals. J. J. BUCHANAN*; N. ROBSON; J. RAMOS. *Texas A & M Univ., California State Univ., Texas A&M Univ.*

9:00 EEE19 **563.18** Robotic-assisted assessment of neurologic function in patients suffering from minor traumatic brain injury. J. J. KORFHAGEN*; J. M. MEUNIER; V. SUBBIAN; F. R. BEYETTE; G. J. SHAW. *Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Cincinnati.*

10:00 EEE20 **563.19** ● Motor learning via low dimension remapping as a marker for spasticity and dystonia in cererbal palsy. C. LOPEZ-ORTIZ*; J. M. S. SIMKOWSKI; K. DOSHI; W. GOMEZ; D. GAEBLER-SPIRA. *Rehabil. Inst. of Chicago/ Northwestern Univ., Northewstern Univ., Univ. of Illinois, Loyola Univ., Rehabil. Inst. of Chicago/Northwestern Univ.*

11:00 EEE21 **563.20** Assessing cognitive-motor integration in preclinical Alzheimer's disease: A discriminant analysis and investigation of neural correlates. K. M. HAWKINS*; L. E. SERGIO. *York Univ., York Univ.*

8:00 EEE22 **563.21** Modeling movement duration based on target-dependent differences to assess reaching movement recovery post-stroke. H. PARK*; S. KIM; J. GORDON; N. SCHWEIGHOFER. *USC.*

POSTER

564. Cortical Planning and Execution: Behavior

Theme D: Sensory and Motor Systems

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

8:00 EEE23 **564.01** transcranial direct current stimulation for improving motor symptom in patients with Parkinson's disease. Y. SALIMPOUR*; Z. MARI; R. SHADMEHR. *Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Med.*

9:00 EEE24 **564.02** Relative proprioceptive distance is used for movements towards visual targets. M. C. VAN DER GRAAFF*; E. BRENNER; J. B. J. SMEETS. *VU Univ.*

10:00 EEE25 **564.03** The influence of affordances on object-directed actions. E. ROUNIS*; M. DUTA; G. HUMPHREYS. *Oxford Univ., Cognitive Neuropsychology Ctr.*

11:00 EEE26 **564.04** The influence of arm-movement preparation on interhemispheric beta synchronization in the medial motor areas. T. NAKAJIMA*; H. ARISAWA; R. HOSAKA; K. SHIMA; H. MUSHIAKE. *Tohoku Univ. Sch. Med., Core Res. of Evolutional Sci. & Technol. (CREST), Fukuoka Univ., RIKEN Brain Sci. Inst.*

8:00 FFF1 **564.05** Analysing a hand movement and gazes to find whether a monkey sets via points in a free curve drawing. Z. HE*; E. MYASHITA. *Dept. Computa. Intelligence & Systems Sci., Interdisciplinary Grad. Sch. Sci. &.*

9:00 FFF2 **564.06** ▲ Emergence of stereotypy in a complex movement sequence: A comparison of temporal and implementation variability in human motor learning. S. JETT; J. A. MEIER; J. KOSTEK; S. D. JAFFEE; A. L. FANTANA*. *Bowling Green State Univ.*

10:00 FFF3 **564.07** Reach-to-grasp: Widespread distribution in primary motor cortex of movement related potentials that vary with both reach location and object type. A. T. ROUSSIN*; A. G. ROUSE; M. H. SCHIEBER. *Univ. of Rochester Med. Ctr.*

11:00 FFF4 **564.08** Left lateralized alpha power is associated with motor preparation of both hands. T. KAJIHARA*; M. ANWAR; Y. MIZUNO; M. KAWASAKI; K. NAKAZAWA; K. KITAJO. *Rhythm-Based Brain Information Processing Unit, RIKEN BSI-TOYOTA Collaboration C, Grad. Sch. of Arts and Sciences, Univ. of Tokyo, Tokyo Univ. of Agr. and Technol., Grad. Sch. of Systems and Information Engineering, Univ. of Tsukuba, Lab. for Advanced Brain Signal Processing, RIKEN Brain Sci. Inst.*

8:00 FFF5 **564.09** Implicit guidance to dynamic stability in rhythmic ball manipulation. M. E. HUBER*; D. STERNAD. *Northeastern Univ., Northeastern Univ.*

9:00 FFF6 **564.10** Neural correlates of intrinsic and extrinsic coordinate control following left-hemisphere stroke. S. JAX*; D. ROSA-LEYRA; L. BUXBAUM. *Moss Rehabil. Res. Inst.*

10:00 FFF7 **564.11** Referent control of motor actions by the corticospinal system in humans (TMS studies). A. G. FELDMAN*; H. A. RAPTIS; N. ILMANE; S. G. SANGANI. *Univ. Montreal, Ctr. for Interdisciplinary Res. in Rehabil. (CRIR), Univ. Montreal, McGill.*

11:00 FFF8 **564.12** Oscillatory corticomuscular coupling is a negative factor of exerted force steadiness. J. YAMADA*; J. USHIYAMA; M. LIU; J. USHIBA. *Keio Univ., Keio Univ. Sch. of Med., Keio Univ.*

8:00 FFF9 **564.13** Decreased ability to inhibit motor response under the food craving condition. K. YAMANAKA*; F. ISHIKAWA; Y. FURUKAWA. *Showa Women's Univ.*

9:00 FFF10 **564.14** Increased task complexity leads to a decreased motor preparatory state. N. M. DRUMMOND*; E. K. CRESSMAN; A. N. CARLSEN. *Univ. of Ottawa.*

10:00 FFF11 **564.15** Adult hemispherectomy asymmetrically affects the emotional reactivity and locomotion activity in mice. M. C. SANTOS*; D. PAES BRANCO; Y. ABREU VILLAÇA; A. CHRISTIAN MANHÃES; C. CARNEIRO FILGUEIRAS. *Univ. Do Estado Do Rio De Janeiro - UERJ, Univ. do Estado do Rio de Janeiro, Univ. Estadual do Rio de Janeiro.*

11:00 FFF12 **564.16** Social cues can acutely reverse injury-induced vocal motor impairments. M. H. KAO*; R. RAJAN; A. DOUPE. *UCSF Ctr. For Integrative Neurosci.*

8:00 FFF13 **564.17** Frontal and parietal lesions have different effects on online updating of prehension for perturbations of object goal. E. TUNIK; S. T. GRAFTON; S. V. ADAMOVICH*. *Rutgers Univ., Univ. of California, Santa Barbara, New Jersey Inst. of Technol.*

POSTER

565. Sensorimotor Control in Orofacial Systems

Theme D: Sensory and Motor Systems

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

8:00 FFF14 **565.01** Age-related changes in rat cortical motor area dedicated to tongue and jaw. J. M. WENNINGER; J. RUSSELL; H. KLETZIEN; A. J. SCHASER; J. A. KLEIM; N. THOMAS; N. P. CONNOR*. *Univ. of Wisconsin, Arizona State Univ., Univ. Wisconsin Med. Ch.*

9:00 FFF15 **565.02** Modulation of auditory and somatosensory event-related potentials due to speech motor learning. T. ITO*; J. H. COPPOLA; D. J. OSTRY. *Haskins Labors, Haskins Labors, McGill Univ.*

10:00 FFF16 **565.03** Spatiotemporal dynamics of multiple bands of local field potentials from orofacial portion of primary motor cortex during feeding. K. TAKAHASHI*; J. IRIARTE-DIAZ; K. A. BROWN; N. G. HATSOPOULOS; C. F. ROSS. *Univ. of Chicago.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 FFF17 **565.04** Neuronal networks innervating the jaw-opening and jaw-closing muscles: A retrograde transneuronal tracing study with rabies virus in the rat. N. HATANAKA*; S. MIYACHI; A. NAMBU; M. TAKADA. *NIPS, Primate Res. Institute, Kyoto Univ., Primate Res. Institute, Kyoto Univ.*

8:00 FFF18 **565.05** Spiking activity in the motor and sensory cortices differ during long-term learning. F. I. ARCE*; N. G. HATSOPOULOS; J. C. LEE; C. F. ROSS; B. J. SESSLE. *Univ. of Chicago, Univ. of Toronto.*

9:00 FFF19 **565.06** Decreased face primary motor cortex (face-M1) excitability induced by noxious stimulation of the rat molar tooth pulp is dependent on the functional integrity of face-M1 astrocytes. L. AWAMLEH*; H. PUN; J. LEE; B. SESSLE; L. AVIVI-ARBER. *Fac. of Dentistry, Univ. of Toronto, Fac. of Dentistry, Univ. of Toronto.*

10:00 FFF20 **565.07** Early and progressive oromotor and swallowing dysfunction in a PINK1 knock-out model of Parkinson disease. M. R. CIUCCI*; L. M. GRANT; C. A. KELM-NELSON. *Univ. Wisconsin.*

11:00 FFF21 **565.08** Kinematics of the pharyngeal swallow following palatal anesthesia in infant pigs: Evidence of motor learning. R. Z. GERMAN*; S. HOLMAN. *NEOMED, Univ. of Maryland.*

8:00 FFF22 **565.09** Effects of targeted strength training in a unilateral vs. bilateral 6-hydroxydopmine model of Parkinson's disease. E. K. PLOWMAN*; B. RIVERA; K. DONOGHUE. *Univ. of South Florida.*

9:00 FFF23 **565.10** Noxious tooth pulp stimulation decreases rat face primary motor cortex (Face-M1) excitability by modulating medullary astrocyte function. H. PUN*; L. AWAMLEH; L. AVIVI-ARBER; B. SESSLE. *Fac. of Dent. Univ. of Toronto, Fac. of Dent. Univ. of Toronto.*

POSTER

566. Voluntary Motor Plasticity

Theme D: Sensory and Motor Systems

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

8:00 FFF24 **566.01** Exercise promotes differential plastic effects in motor areas of the aged rat brain. J. BORBOREMA; S. SALAME; P. C. GARCIA; C. C. REAL; L. R. G. BRITTO; R. S. PIRES*. *Univ. Cidade de Sao Paulo, Univ. of Sao Paulo, Univ. Cidade De São Paulo.*

9:00 FFF25 **566.02** Thenar cortical representation in humans associated with cellular-phone texting ability. Z. A. RILEY*; N. HOSEINI; J. MAO; N. R. ECKERT. *Indiana University-Purdue Univ. Indianapolis, Indiana Univ.*

10:00 FFF26 **566.03** Influence of BDNF polymorphism on I-wave TMS (ITMS) plasticity and neurophysiology in human motor cortex. R. CASH*; K. UDUPA; R. CHEN. *Toronto Western Res. Inst.*

11:00 GGG1 **566.04** Visuomotor adaptation and retention in the young, elderly and people with Parkinson's disease. M. PANOUILLÈRES; R. JOUNDI; J. BRITTAIN; P. BROWN; N. JENKINSON*. *Univ. of Oxford.*

8:00 GGG2 **566.05** Training, transfer and tDCS: Are training and tDCS effects generalizable, or effector and sequence specific? G. PRICHARD*; C. VAROTSIS; S. WATERS-METENIER; J. DIEDRICHSEN. *Univ. Col. London.*

9:00 GGG3 **566.06** Compensatory changes in neuronal firing in the perilesional motor cortex: A single unit recording study in the macaque monkey. N. HIGO*; N. KUNORI; I. TAKASHIMA. *Human Tech. Res. Inst, AIST.*

10:00 GGG4 **566.07** Enlarged striatal brain volume in individual top athletes. M. TAUBERT*; U. WENZEL; B. DRAGANSKI; S. KIEBEL; P. RAGERT; J. KRUG; A. VILLRINGER. *MPI Leipzig, Univ. of Leipzig, Univ. of Lausanne.*

11:00 GGG5 **566.08** Dose-response effects of anodal transcranial direct current stimulation (tDCS) on cortical excitability in rats. H. J. HULSHOF; J. REIS; A. GELLNER; C. WEILLER; B. FRITSCH*. *Univ. of Freiburg/ Neurocenter.*

8:00 GGG6 **566.09** Cortical adaptations within and between the primary motor cortices after bimanual training and theta burst stimulation to the left dorsal premotor cortex. J. L. NEVA*; M. VESIA; A. M. SINGH; R. J. IBEY; W. R. STAINES. *Univ. of Waterloo, Toronto Western Res. Inst., Univ. of Waterloo, Sunnybrook Hlth. Sci. Ctr.*

9:00 GGG7 **566.10** Representation of motor speed in the cerebellar anterior lobe. U. WENZEL*; M. TAUBERT; P. RAGERT; A. VILLRINGER; J. KRUG. *Univ. of Leipzig, Friedrich Schiller Univ., Max Planck Inst. for Human Cognitive and Brain Sci.*

10:00 GGG8 **566.11** Motor cortex ensemble dynamics imaged during motor learning. A. PETERS*; T. KOMIYAMA. *UCSD.*

11:00 GGG9 **566.12** The effects of skill learning versus skill repetition on cortical organization and behavioral output: A computational model. A. S. BAINS*; N. SCHWEIGHOFER. *USC.*

8:00 GGG10 **566.13** Individualising theta burst stimulation to optimise motor cortex plasticity. P. BROWNJOHN*; J. N. J. REYNOLDS; N. MATHESON; J. FOX; J. B. H. SHEMMELL. *Univ. of Otago.*

9:00 GGG11 **566.14** Timing- and activity- dependent plasticity of indirect cortico-motoneuronal pathways in humans. T. NAKAJIMA*; T. KOMIYAMA; H. OHTSUKA; S. SUZUKI; G. FUTATSUBASHI; Y. OHKI. *Kyorin Unversity Sch. of Med., Chiba Univ.*

10:00 GGG12 **566.15** Layer-specific dynamics of cortical ensembles and single neurons during motor learning. M. MATSUZAKI*; Y. MASAMIZU; Y. R. TANAKA; Y. H. TANAKA; R. HIRA; F. OHKUBO; K. KITAMURA; Y. ISOMURA; T. OKADA. *Natl. Inst. For Basic Biol., CREST, Japan Sci. and Technol. Agency, Univ. of Tokyo, Brain Sci. Institute, Tamagawa Univ., Natl. Inst. of Neuroscience, NCNP.*

11:00 GGG13 **566.16** Modulation of paired associative stimulation-induced plasticity following aerobic exercise. A. M. SINGH*; J. L. NEVA; W. R. STAINES. *Univ. of Waterloo, Heart and Stroke Fndn. Ctr. for Stroke Recovery, Sunnybrook Hlth. Sci. Ctr.*

8:00 GGG14 **566.17** CB1 receptor signaling affects motor map expression in rodents. K. A. SCULLION*; A. T. HUSSIN; M. N. HILL; Q. J. PITTMAN; G. C. TESKEY. *Univ. of Calgary.*

9:00 GGG15 **566.18** Transient directed microglia motility and activation by direct current stimulation (DCS): Simultaneous DCS and two photon *in vivo* imaging. A. GELLNER*; C. WEILLER; J. REIS; B. FRITSCH. *Univ. of Freiburg/ Neurocenter.*

10:00 GGG16 **566.19** Neurofeedback training over the premotor cortex increases the activation of motor related areas. E. C. RODRIGUES*; T. F. MARINS; A. ENGEL; I. BRAMATI; R. BASILIO; R. LENT; J. MOLL; F. TOVAR-MOLL. *D'Or Inst. For Res. and Educ., Augusto Motta Univ. (UNISUAM), D'Or Inst. for Res. and Educ., Federal Univ. of Rio de Janeiro.*

11:00 GGG17 **566.20** Constructing a hodological map for the mouse forelimb muscles. E. M. STRAIT*; M. BANNECK; Y. ZUO. *Univ. of California, Santa Cruz.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 GGG18 **566.21** Training strategies in the elderly may differentially affect the speed accuracy trade-off during motor skill learning. M. ELWENSPOEK; G. PRICHARD; A. SCHÖCHLIN-MARX; B. FRITSCH; J. REIS*. *Univ. of Freiburg, UCL London.*

9:00 GGG19 **566.22** Effects of motor cortical stimulation timing on neuroplasticity during planar reaching movement. C. L. MASSIE*; P. NARAYANAN; S. S. KANTAK; G. F. WITTENBERG. *Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med., Moss Rehabil. Res. Inst., Geriatrics Research, Educ. & Clin. Center, Veterans Affairs Med. Ctr.*

10:00 GGG20 **566.23** The effects of hand immobilization on motor imagery: A multimodal study. L. MARSTALLER*; P. SOWMAN; A. RICH; M. WILLIAMS; G. SAVAGE; H. BURIANOVÁ. *Macquarie Univ. Sydney, Macquarie Univ. Sydney.*

11:00 GGG21 **566.24** Enhancing effector-independent representations of motor skill with transcranial direct current stimulation (tDCS) to primary motor cortex (M1): Behavioral and neuroimaging effects. S. WATERS-METENIER*; T. WIESTLER; J. ALLEN; M. HUSAIN; J. DIEDRICHSEN. *Univ. Col. London, Univ. Col. London, Univ. Col. London, Oxford Univ., Oxford Univ.*

8:00 GGG22 **566.25** Microstructural changes of motor tracts in healthy ageing. R. LINDENBERG; A. WILLERT; M. MEINZER; A. FLOEL*. *Charite Univ. Med.*

9:00 GGG23 **566.26** Unilateral activation of the less affected limb to task-failure facilitates the ipsilesional hemisphere post-stroke. C. PATTEN*; E. WHITE; N. LODHA. *Univ. of Florida, Univ. of Florida, Univ. of Florida.*

10:00 GGG24 **566.27** Physiological changes in the cerebellum and primary motor cortex during skill learning. D. SPAMPINATO*; A. BASTIAN; P. CELNIK. *Johns Hopkins Unviersity Sch. of Med., Johns Hopkins Univ. Sch. of Med., Kennedy Krieger Inst., Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

11:00 GGG25 **566.28** ▲ Visual attention load modulates motor cortical plasticity through sensory-motor projections. J. L. MIRDAMADI*; L. Y. SUZUKI; S. K. MEEHAN. *Univ. of Michigan.*

8:00 GGG26 **566.29** Hardware simulation of excessive cortical drive results in increased motoneuron excitability and presents features of spasticity. S. NANDYALA*; C. M. NIU; T. D. SANGER. *USC.*

9:00 GGG27 **566.30** Trial-to-trial variability of PM and M1 cortical neurons encodes directional learning control task factors. J. SI*; H. MAO; T. KETCHUM. *Arizona State Univ.*

POSTER

567. Brain-Machine Interface IV

Theme D: Sensory and Motor Systems

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

8:00 GGG28 **567.01** **Withdrawn.**

9:00 GGG29 **567.02** Motor cortical activity tracks the position of a brain-machine interface cursor. S. D. STAVISKY*; J. C. KAO; P. NUYUJUKIAN; S. I. RYU; K. V. SHENOY. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Palo Alto Med. Fndn., Stanford Univ.*

10:00 GGG30 **567.03** Microfabrication and finite element modeling of micro and macro sieves for use in targeted peripheral nerve regeneration. J. PARDO*; E. ZELLMER; D. MORAN. *Washington Univ. In St. Louis.*

11:00 GGG31 **567.04** Assessing neuronal viability near chronically implanted microelectrode arrays using optogenetics. G. L. KNAACK*; E. CIVILLICO; K. T. WACHRATHIT; S. HUANG; J. J. PANCRAZIO; C. G. WELLE. *George Mason Univ., FDA, George Mason Univ.*

8:00 GGG32 **567.05** Evaluation of chronically implanted microelectrode arrays for brain-machine interface. P. TAKMAKOV*; S. JAROUDI; E. F. CIVILLICO; K. T. WACHRATHIT; V. KRAUTHAMER; C. G. WELLE. *FDA, FDA.*

9:00 GGG33 **567.06** A wireless neural recording system for freely behaving primates. F. ASGARIAN; M. HASHEMI; W. CARTAGENA; S. HAO; K. G. OWEISS*. *Michigan State Univ.*

10:00 GGG34 **567.07** ● Evaluation of long-term stability of atomic layer deposited Al2O3 and Parylene C bi-layer encapsulated Utah electrode array based neural interfaces. X. XIE; L. RIETH; L. WILLIAMS; S. NEGI*; R. BHANDARI; R. CALDWELL; M. DIWEKAR; R. SHARMA; P. TATHIREDDY; F. SOLZBACHER. *Univ. of Utah, Blackrock Microsystems, Univ. of Utah.*

11:00 GGG35 **567.08** A longitudinal study of comparative neural implant recording efficacy in awake behaving mice. E. F. CIVILLICO*; K. T. WACHRATHIT; A. JAIN; V. KRAUTHAMER; C. WELLE. *FDA, FDA.*

8:00 GGG36 **567.09** Keep your attention on the ball, a small twist on the old adage. J. NORTON*; S. HAAS; C. BESHERS; S. UMUNNA; T. BRETL. *Univ. of Illinois, Urbana High Sch., Univ. High Sch., Univ. of Illinois.*

9:00 GGG37 **567.10** Multi-channel recording system with UWB wireless data transmitter for ECoG-BMI. T. SUZUKI*; H. ANDO; T. YOSHIDA; K. MATSUSHITA; M. HIRATA; T. YOSHIMINE; K. TAKIZAWA. *Natl. Inst. of Information and Communications Technol., Hiroshima Univ., Osaka Univ.*

10:00 GGG38 **567.11** ● Wireless electrocorticographic (ECoG) recording system. D. R. MERRILL*; R. ASKIN; C. F. SMITH; R. E. MADSEN, Jr.; D. MCDONNALL; K. S. GUILLORY. *Ripple.*

11:00 GGG39 **567.12** Cortical representation of cognitive load in a graded-difficulty BCI task. J. D. WANDER*; T. BLAKELY; J. G. OJEMANN; R. P. N. RAO. *Univ. of Washington, Univ. of Washington, Univ. of Washington.*

8:00 GGG40 **567.13** ● Performance improvements in fully-integrated small form-factor wireless neural interfaces. L. RIETH*; D. WARREN; A. SMITH; R. HARRISON; P. TATHIREDDY; X. XIE; H. OPPERMANN; G. CLARK; F. SOLZBACHER. *Univ. of Utah, Univ. of Utah, Univ. of Washington, Intan Technologies, Univ. of Utah, Fraunhofer IZM.*

9:00 GGG41 **567.14** Assessing awareness after traumatic brain injury (TBI) using spatially-constrained independent component analysis (ScICA). D. GUPTA*; G. SELIGER; G. FIORENZA; D. ZEITLIN; B. ZOLTAN; L. TENTEROMANO; T. M. VAUGHAN. *Wadsworth Ctr., Albany Med. Col., Helen Hayes Hosp., Columbia Univ.*

10:00 GGG42 **567.15** Rotations of neural population state present in scalp EEG recordings during human movement. K. NATHAN*; H. AGASHE; J. L. CONTRERAS-VIDAL, Ph.D. *Univ. of Houston.*

11:00 GGG43 **567.16** Large field study of ultra-low cost BMI using intention decoding from eye movements for closed loop control. W. W. ABBOTT*; A. A. FAISAL. *Imperial Col. London, Imperial Col. London.*

8:00 GGG44 **567.17** Brain-Muscle-Computer Interfaces: The effect of audio feedback. I. SKAVHAUG*; C. DAO; B. VERNON; S. S. JOSHI. *Univ. of California, Davis.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 GGG45 **567.18** Activation of a Gq-coupled membrane estrogen receptor rapidly attenuates alpha 2-adenoceptor-induced antinociception via an ERK I/II-dependent, non-genomic mechanism. D. M. HECKARD*; S. NAG; S. S. MOKHA. *Meharry Med. Col., Meharry Med. Col.*

10:00 GGG46 **567.19** Human electrocorticography based stimulation. D. K. SU; J. D. WANDER; L. A. JOHNSON; D. SARMA; K. E. WEAVER*; J. D. OLSON; E. E. FETZ; J. G. OJEMANN. *Univ. of Washington, Univ. of Washington, Univ. of Washington, Univ. of Washington, Univ. of Washington.*

11:00 GGG47 **567.20** Prelocalization of a bipolar electrode using fMRI enables a minimally invasive ECoG-based Brain Computer Interface. N. F. RAMSEY*; M. BLEICHNER; A. TORRES VALDERRAMA; Z. FREUDENBURG; B. VERWEIJ; M. VANSTEENSEL; E. AARNOUTSE. *Rudolf Magnus Institute, Univ. of Utrecht.*

POSTER

568. Hypothalamic, Neural, and Peripheral Regulation of the HPG and HPA

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

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

8:00 GGG48 **568.01** Acceleration of TRH and TRH-like peptide release in rat brain and peripheral tissues during proestrus/estrus. A. SATTIN; A. E. PEKARY*. *VA Greater Los Angeles Hlthcare Syst.*

9:00 HHH1 **568.02** The suprachiasmatic nucleus regulates the ovarian steroid secretion and the ovulatory response in an asymmetric way. D. A. RAMIREZ; A. GONZÁLEZ; H. JIMÉNEZ; E. VIEYRA; L. MORALES; R. DOMINGUEZ*. *FES Zaragoza UNAM.*

10:00 HHH2 **568.03** Ovulatory response and monoamines concentration in the celiac-superior mesenteric ganglia and ovaries in rats with polycystic ovarian syndrome. R. LINARES; G. ROSAS; M. I. NAVARRETE; M. E. AYALA; C. MORAN*; R. DOMÍNGUEZ; L. MORALES. *FES Zaragoza-UNAM, Univ. Autonoma de Puebla.*

11:00 HHH3 **568.04** The anatomy of celiac ganglion related with the ovaries in female rats. C. F. PASTELIN*; Y. TÉLLEZ; M. MUÑOZ; N. ROSAS; A. HANDAL; Y. CRUZ; C. MORÁN. *Univ. Autónoma de Puebla, Univ. Autónoma de Puebla, Univ. Autónoma de Tlaxcala.*

8:00 HHH4 **568.05** Met-enkephalin inhibits dopamine neurons in the hypothalamic arcuate nucleus and depresses presynaptic input. X. ZHANG*; A. N. VAN DEN POL. *Yale Univ. Sch. of Med.*

9:00 HHH5 **568.06** The muscarinic receptor blockade of the right suprachiasmatic nucleus decreases of the ovulatory response of the left ovary. E. VIEYRA; D. A. RAMIREZ; S. E. CRUZ-MORALES*; R. DOMÍNGUEZ. *FES Zaragoza-UNAM, FES-Iztacala UNAM México.*

10:00 HHH6 **568.07** The acute steroidogenic response of the ovaries to the vasoactive intestinal peptide on proestrus day is modulated by the superior ovarian nerve. G. ROSAS; M. I. RAMIREZ; R. LINARES; R. CHAVIRA; M. MARTINEZ-GOMEZ*; R. DOMÍNGUEZ; L. MORALES. *FES Zaragoza-UNAM, Inst. Nacional de Ciencias Médicas y Nutrición "Salvador Zubirán"., Univ. Autónoma De Tlaxcala.*

11:00 HHH7 **568.08** Comparative distribution of GAD67 mRNA expression in the forebrain of prepubertal and adult female mice. D. RATRA*; C. F. ELIAS. *Univ. of Michigan.*

8:00 HHH8 **568.09** Gonadotropin-releasing hormone induces dentin matrix protein 1 in adult rat female pituitary glands. I. BJELOBABA*; M. KUCKA; S. J. H. CLOKIE; D. C. KLEIN; S. S. STOJILKOVIC. *Natl. Inst. of Child Hlth. and Human Develop., Natl. Inst. of Child Hlth. and Human Develop.*

9:00 HHH9 **568.10** Estrogen and food state modulate leptin action on the nitrergic system. B. BORGES*; C. R. FRANCI. *Univ. of Sao Paulo (FMRP).*

10:00 HHH10 **568.11** Identification and selective stimulation of hypothalamic corticotropin releasing hormone containing neurons expressing light sensitive channelrhodopsin-2. S. W. HARDEN*; E. G. KRAUSE; C. J. FRAZIER. *Univ. of Florida.*

11:00 HHH11 **568.12** Remote stress-free peripheral administration of an endocannabinoid receptor antagonist suggests both central and peripheral actions regulating hypothalamic-pituitary-adrenal axis activity. R. J. NEWSOM*; R. J. GARCIA; H. E. W. DAY; S. CAMPEAU. *Univ. of Colorado Boulder, Univ. of Colorado.*

8:00 HHH12 **568.13** Estrous cycle effects on hypothalamic-pituitary-adrenal (HPA) responses to single-dose nicotine, continuous nicotine by osmotic mini-pumps, and nicotine withdrawal by mecamylamine in female rats. M. E. RHODES*; M. UDDIN; T. E. KAROWSKI; R. K. CZAMBEL; R. T. RUBIN. *St. Vincent Col., Allegheny Gen. Hosp., VA Greater Los Angeles Healthcare Syst.*

9:00 HHH13 **568.14** ● Neuroendocrine but not behavioral arms of the stress axis altered by gastric bypass in male rats. B. E. GRAYSON*; A. P. HAKALA-FINCH; M. KEKULAWALA; H. LAUB; A. E. EGAN; S. C. WOODS; J. P. HERMAN; R. J. SEELEY; S. C. BENOIT; Y. M. ULRICH-LAI. *Univ. of Cincinnati, Univ. of Cincinnati.*

10:00 HHH14 **568.15** Stress plasticity of the noradrenergic regulation of inhibitory synaptic inputs to CRH neurons of the hypothalamic paraventricular nucleus. C. CHEN*; J. G. TASKER. *Tulane Univ.*

11:00 HHH15 **568.16** Interactive effects of low testosterone and obesity on the central and peripheral nervous systems. A. JAYARAMAN*; D. LENT; C. PIKE. *Univ. So California.*

8:00 HHH16 **568.17** Hypothalamic dysfunction in 5q14 deletion syndrome. Y. SAKAI*; Y. MATSUSHITA; K. OHKUBO; T. HARA. *Dept. of Pediatrics, Kyushu Univ., Kyushu Univ., Kyushu Univ.*

POSTER

569. Sexual Differentiation of Neuroanatomical Endpoints

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

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

8:00 HHH17 **569.01** Effects ofperinatal sucrose administration in rats. I. ZARCO DE CORONADO*; S. MUUS-MENDOZA. *UNAM.*

9:00 HHH18 **569.02** Ovarian hormones, but not androgens, affect neuron and glia number in the medial prefrontal cortex. W. A. KOSS*; R. M. SADOWSKI; J. M. JURASKA. *Univ. Illinois Urbana-Champaign.*

10:00 HHH19 **569.03** ● Fetal Testosterone is associated with white matter volumetric sexual dimorphism in children. A. N. RUIGROK*; E. CHAPMAN; M. LAI; M. V. LOMBARDO; B. AUYEUNG; J. SUCKLING; K. TAYLOR; G. HACKETT; E. T. BULLMORE; S. BARON-COHEN. *Autism Res. Ctr., Univ. of Bath, Brain Mapping Unit, Dept. of Psychiatry, Univ. of Cambridge, Dept. of Clin. Biochemistry, Addenbrooke's Hospital, Cambridge, Dept. of Fetal Medicine, Rosie Maternity Hospital, Cambridge.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 HHH20-DP9 **569.04** Expression and regulation of sexually dimorphic genes in the developing mouse cortex and hippocampus. C. ARMOSKUS; D. MOREIRA; H. TSAI*. *California State University, Long Beach.*

8:00 HHH21 **569.05** Species differences in the distribution of androgen receptor and sex differences in three newly identified species-specific clusters in the preoptic and anterior hypothalamic areas of the adult rats and mice. M. R. JAHAN*; K. KOKUBU; C. MATSUO; R. FUJINAGA; A. YANAI; T. WATANABE; N. TAKEMOTO; M. N. ISLAM; K. SHINODA. *Yamaguchi Univ. Grad. Sch. of Med.*

9:00 HHH22 **569.06** Microcolumnar properties show sexual dimorphism in areas 17 and 46 of monkey brain. W. MORRISON*; E. L. GIANNARIS; L. CRUZ; F. MORTAZAVI; B. URBANC; J. SANTOS; D. L. ROSENE; H. E. STANLEY. *Boston Univ., Univ. of Massachusetts Med. Sch., Boston Univ. Sch. of Med., Drexel Univ.*

10:00 HHH23 **569.07** Exposure to bisphenol A during early development alters neuron and glia number in the prefrontal cortex of adult male, but not female, rats. R. N. SADOWSKI*; L. M. WISE; S. L. SCHANTZ; J. M. JURASKA. *Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign, Univ. of Illinois at Urbana-Champaign.*

11:00 HHH24 **569.08** Effects of exposure to bisphenol A during adolescence on neuron number and volume in the prefrontal cortex. L. M. WISE*; R. N. SADOWSKI; S. L. SCHANTZ; J. M. JURASKA. *Univ. of Illinois, Univ. of Illinois, Univ. of Illinois.*

8:00 HHH25 **569.09** The role of circulating androgens and the androgen receptor in sex differences in the mouse VMH. J. L. BRUMMET*; C. L. JORDAN; S. M. BREEDLOVE. *Michigan State Univ., Michigan State Univ.*

9:00 HHH26 **569.10** Immunohistochemical localization of estrogen receptors α and β, progesterone receptor, and kisspeptin in the preoptic area of SF-1 knockout mice. Y. IKEDA*; T. KATO; M. KOMADA. *Aichi-Gakuin Univ. Sch. of Dent., Natl. Ctr. for Child Hlth. and Develop.*

10:00 HHH27 **569.11** Sexual differentiation of kisspeptin neurons still occurs in mice lacking GnRH signaling but feminization is incomplete. K. P. TOLSON*; J. KIM; S. DHAMIJA; A. S. KAUFFMAN. *UCSD.*

11:00 HHH28 **569.12** Prenatal exposure to the antiandrogen flutamide affects mesocorticolimbic dopaminergic system in rats. M. PALLARÉS; E. ADROVER; M. IMSEN; C. J. BAIER; M. C. ANTONELLI*. *IBCN, Facultad De Medicina, Inst. de Investigaciones Biomédicas, Inst. de Investigaciones Bioquímicas de Bahía Blanca.*

8:00 HHH29 **569.13** Neonatal exposure to estradiol valerate increases dopamine content in nigrostriatal pathway during adulthood in the rat. R. SOTOMAYOR-ZÁRATE*; R. RIQUELME; P. ESPINOSA; A. DAGNINO-SUBIABRE; P. JARA; G. M. RENARD; G. CRUZ. *Univ. de Valparaiso, Millennium Sci. Nucleus in Stress and Addiction (NEDA), Pontificia Univ. Católica de Chile, Univ. of Santiago de Chile.*

POSTER

570. Sleep Systems: Humans, Monkeys, and Models

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

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

8:00 HHH30 **570.01** Effects of alcohol consumption in sleep architecture of Mexican elderly patients: A retrospective study. M. M. MELENDEZ*; A. GALLEGOS-CARI; N. F. HERNÁNDEZ-LLANES; R. E. CAMACHO-SOLIS; U. JIMENEZ-CORREA; F. AYALA-GUERRERO; J. VELAZQUEZ-MOCTEZUMA; A. JIMÉNEZ-ANGUIANO. *IAPA-DF, UNAM, UAM I.*

9:00 HHH31 **570.02** The relation between alcohol consumption pattern and sleep architecture in Mexican elderly patients. A. GALLEGOS-CARI*; N. F. HERNANDEZ-LLANES; R. E. CAMACHO-SOLIS; U. JIMENEZ-CORREA; F. AYALA-GUERRERO; J. VELAZQUEZ-MOCTEZUMA; A. JIMÉNEZ-ANGUIANO; M. A. MENDOZA-MELÉNDEZ. *IAPA-DF, UNAM, UAM I.*

10:00 HHH32 **570.03** Neural substrate of rapid eye movements during REM sleep in humans: Comparison of cortical activation patterns among REMs and several types of waking saccades. S. KAN*; T. KOIKE; M. MISAKI; S. MIYAUCHI. *Natl. Inst. of Information and Communications Technol., Natl. Inst. for Physiological Sci., Laureate Inst. for Brain Res.*

11:00 HHH33 **570.04** Shared patterns of cortical neuronal activity associated with rapid eye movements during wakefulness and sleep in humans. T. ANDRILLON*; C. CIRELLI; G. TONONI; I. FRIED; Y. NIR. *École Normale Supérieure, Ecole Doctorale Cerveau, Cognition, Comportement, Univ. of Wisconsin-Madison, David Geffen Sch. of Med. and Semel Inst. For Neurosci. and Human Behavior, Tel Aviv Med. Ctr. and Sackler Sch. of Med., Sackler Sch. of Med. and Sagol Sch. of Neurosci.*

8:00 HHH34 **570.05** Human behavioral lapses upon sleepiness correlate with local suppression of single-unit spiking activity and regional increases in LFP low-frequency oscillations. Y. NIR*; T. ANDRILLON; N. SUTHANA; C. CIRELLI; I. FRIED; G. TONONI. *Tel Aviv Univ., Univ. of Wisconsin-Madison, EHESS/CNRS/ENS-DEC, UCLA, Tel Aviv Univ.*

9:00 HHH35 **570.06** Fading signatures of critical brain dynamics during sustained wakefulness in humans. C. MEISEL*; E. OLBRICH; O. SHRIKI; P. ACHERMANN. *NIMH, Max Planck Inst. for Mathematics in the Sci., Univ. of Zurich.*

10:00 HHH36 **570.07** Reproduction of whole-head MEG and EEG patterns during Human Sleep Spindles in a large scale neural model with realistic cortical anatomy. E. MUKAMEL; D. J. HAGLER JR.; G. P. KRISHNAN; E. PETRILLO; S. S. CASH; T. SEJNOWSKI; M. V. BAZHENOV*; E. HALGREN. *Salk Inst., UCSD, Univ. of California, Riverside, Massachusetts Gen. Hospital, Harvard Med. Sch., Univ. California, Riverside.*

11:00 HHH37 **570.08** Sleep stage transitions in the network model of the thalamocortical system. G. P. KRISHNAN*; E. HALGREN; M. BAZHENOV. *Univ. of California, Riverside, UCSD.*

8:00 HHH38 **570.09** Longitudinal data reveal a linear increase in the frequency of peak sigma power across ages 6-18. N. DARCHIA*; I. G. CAMPBELL; I. FEINBERG. *Ilia State Univ., Univ. of California.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 HHH39 **570.10** Estimation of the number of internal states in the brain as an indicator for the conscious level and content: An ECoG study in monkeys. T. YANAGAWA*; N. OOSUGI; N. HASEGAWA; N. FUJII. *RIKEN, The Univ. of Tokyo.*

10:00 HHH40 **570.11** Facial muscle contractions during REM sleep and its association to Rapid Eye Movements and emotional dreamed content. A. P. RIVERA*; I. RAMÍREZ SALADO; E. LÓPEZ RUIZ; O. PROSPÉRO-GARCÍA. *Inst. Nacional De Psiquiatria Ramon De La Fuente, Natl. Autonomous Univ. of Mexico.*

11:00 HHH41 **570.12** Thalamocortical localization of human K-complexes using SEEG. R. A. MAK-MCCULLY*; B. ROSEN; H. BATUJI; R. CARRON; D. SCAVARDA; P. CHAUVEL; F. BARTOLOMEI; M. REY; E. HALGREN. *UCSD MMIL, INSERM U879, Assistance Publique des Hôpitaux de Marseille, Aix-Marseille Univ., INSERM, U751, Ctr. Hospitalier Universitaire Timone, UCSD MMIL.*

8:00 HHH42 **570.13** Occurrence of delta rhythm in awake human intracranial local field potential recordings. R. N. SACHDEV*; I. I. GONCHAROVA; N. GASPARD; L. J. HIRSCH; D. A. MCCORMICK; D. D. SPENCER; H. P. ZAVERI. *Yale Univ. Sch. of Med., Yale Univ. Sch. of Med., Yale Univ. Sch. of Med., Yale Univ. Sch. of Med.*

9:00 HHH43 **570.14** The effect of chronotype on stress response, sustained attention, and emotional memory. C. GOBIN; A. I. FINS; J. B. BANKS; J. L. TARTAR*. *Nova Southeastern Univ., Nova Southeastern Univ.*

10:00 HHH44 **570.15** **Unable to Attend.** Computational study of sleepiness and circadian rhythms on rotating shift schedules. S. POSTNOVA*; D. D. POSTNOV; P. A. ROBINSON. *The Univ. of Sydney, The Univ. of Copenhagen.*

11:00 HHH45 **570.16** Single units in the human medial temporal lobe during propofol anesthesia. J. NIEDIEK*; M. NAVRATIL; V. A. COENEN; C. E. ELGER; M. SOEHLE; F. MORMANN. *Univ. of Bonn, Univ. of Bonn, Univ. of Bonn.*

8:00 HHH46 **570.17** Do specific common sleep postures independently evoke headaches and breathing obstruction? N. AL-TIMIMI; J. GILLICK*. *UCSD, UCSD.*

9:00 III1 **570.18** Sleep slow oscillations modulate brain-wide information processing. R. COX*; J. VAN DRIEL; L. M. TALAMINI. *Univ. of Amsterdam.*

10:00 III2 **570.19** Cumulative sleep restriction alters lipid metabolism - transcriptomic and metabolomic studies in humans. V. AHO*; H. M. OLLILA; T. PORKKA-HEISKANEN. *Inst. of Biomedicine, Univ. of Helsinki, Natl. Inst. for Hlth. and Welfare, Inst. of Biomedicine.*

11:00 III3 **570.20** Global brain blood-oxygenation level dependent responses to autonomic challenges in obstructive sleep apnea. P. M. MACEY*; R. KUMAR; J. A. OGREN; M. A. WOO; F. L. YAN-GO; R. M. HARPER. *Univ. of California at Los Angeles, Univ. of California at Los Angeles, Univ. of California at Los Angeles, Univ. of California at Los Angeles.*

POSTER

571. Perception: Auditory, Tactile, and Multisensory

Theme F: Cognition and Behavior

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

8:00 III4 **571.01** Multi-voxel pattern analyses reveal similarities and differences in the semantic representations of words and objects. B. J. DEVEREUX; A. CLARKE; A. MAROUCHOS; L. K. TYLER*. *Univ. of Cambridge.*

9:00 III5 **571.02** Multiple time scales of auditory stimulus adaptation in human cortex. S. ELIADES*; N. E. CRONE; D. BOATMAN-REICH. *Johns Hopkins Univ., Johns Hopkins Univ.*

10:00 III6 **571.03** Effect of visual context on the activation of move- and use-related actions during semantic object processing. A. D. SHAPIRO*; S. KALÉNINE; A. FLUMINI; A. M. BORGHI; L. J. BUXBAUM. *Moss Rehabil. Res. Inst., Lille Nord de France Univ., Univ. of Bologna, ISTC-CNR.*

11:00 III7 **571.04** Contrasting CMSs activity during core-self and autobiographical-self processes. H. F. ARAUJO*; J. KAPLAN; H. DAMASIO; A. DAMASIO. *Brain Creativity Inst. - Univ. of Southern California, Grad. Program in Areas of Basic and Applied Biol. - Univ. of Porto.*

8:00 III8 **571.05** Neural responses to musical consonance and dissonance in the human superior temporal gyrus. F. FOO*; D. KING-STEPHENS; P. B. WEBER; K. D. LAXER; R. T. KNIGHT. *Univ. of California, California Pacific Med. Ctr.*

9:00 III9 **571.06** Relationship between brain activity and sense of self-agency during kinesthetic illusory feeling induced by tool use: a functional near-infrared spectroscopy sdtuy. S. WAKATA*; S. MORIOKA. *Kamigyo Clin., Grad. Sch. of Hlth. Sciences, Kio Univ.*

10:00 III10 **571.07** Mental imagery and multisensory integration. C. C. BERGER*; H. H. EHRSSON. *Karolinska Institutet.*

11:00 III11 **571.08** The construction of a whole body multisensory gestalt by the human premotor cortex. G. GENTILE*; M. BJÖRNSDOTTER; V. I. PETKOVA; Z. ABDULKARIM; H. H. EHRSSON. *Karolinska Institutet.*

8:00 III12 **571.09** Stimulus-locked activation of the extrastriate body area during tactile stimulation of the viewed hand. V. OCCELLI; R. STILLA; S. LACEY; M. LONGO; P. HAGGARD; K. SATHIAN*. *Emory Univ., Birkbeck Col., Univ. Col., Emory Univ. Sch. Med.*

9:00 III13 **571.10** Preferences for integrative versus schematic sensory imagery across modalities. S. A. LACEY*; H. FENG; E. CAESAR; M. BHUSHAN; T. JOHN; K. SATHIAN. *Emory Univ.*

10:00 III14 **571.11** Perceptual phase entrainment to speech rhythm in the absence of spectral energy fluctuations. B. ZOEFEL; R. VANRULLEN*. *CNRS.*

11:00 III15 **571.12** Handedness and Perspective during action recognition: Towards a neurophysiological model of action simulation. R. KELLY*; C. MIZELLE; L. WHEATON. *Georgia Inst. of Technol.*

8:00 III16 **571.13** The impact of sensorimotor experience on affective evaluation of movement. L. KIRSCH*; K. A. DROMMELSCHMIDT; K. DAWSON; E. S. CROSS. *Bangor Univ., Radboud Univ. Nijmegen.*

9:00 III17 **571.14** ● The behavioral and neural effects of language on motion perception. J. C. FRANCKEN*; P. KOK; P. HAGOORT; F. P. DE LANGE. *Donders Inst. For Brain, Cognition and Behavior, Radboud Univ. Nijmegen, Max Planck Inst. for Psycholinguistics.*

10:00 III18 **571.15** Decoding actions across objects. M. F. WURM*; G. ARIANI; S. PETRIS; M. W. GREENLEE; A. LINGNAU. *Ctr. For Mind/Brain Sci., Univ. of Trento, Univ. of Regensburg.*

11:00 III19 **571.16** Temporal dynamics of human perceptual decision making: Fine discriminations are guided by the activity of the most informative sensory neurons. E. F. ESTER*; J. T. SERENCES. *Univ. of California San Diego, UCSD.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 III20 **571.17** Quick adaptive Bayesian assessment of sensory memory decay. J. BAEK*; L. LESMES; Z. LU. *Ohio State Univ., Harvard Med. Sch.*

9:00 III21 **571.18** Gender differences in influence of sound environments on performance of the memorizing numerical string task and cerebral blood flow changes. A. MASAZUMI*; U. YAMAMOTO; T. HIROYASU. *Doshisha Univ.*

POSTER

572. Human Long-Term Memory: Retrieval

Theme F: Cognition and Behavior

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

8:00 III22 **572.01** Incorporating neural signals into computational models of memory search. S. M. POLYN*; N. W. MORTON; J. E. KRAGEL; J. D. MCCLUEY. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

9:00 III23 **572.02** Representation of item and context specific information during memory retrieval in the human brain. J. E. KRAGEL*; S. M. POLYN. *Vanderbilt Univ.*

10:00 III24 **572.03** Inter-item distraction dissociates temporal and semantic organization in free recall. N. W. MORTON*; S. M. POLYN. *Vanderbilt Univ., Vanderbilt Univ.*

11:00 III25 **572.04** Consolidation of newly learned words: Does the presence of pictures at encoding make a difference? A. TAKASHIMA*; I. BAKKER; J. G. VAN HELL; G. JANZEN; J. M. MCQUEEN. *Radboud Univ. Nijmegen, Radboud Univ. Nijmegen, Pennsylvania State Univ., Max Planck institute for Psycholinguistics.*

8:00 III26 **572.05** Schema effects on spatial associative memory in humans. M. VAN BUUREN*; M. KROES; G. FERNÁNDEZ. *Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen.*

9:00 III27 **572.06** Evidence for reconsolidation of emotional episodic memories in humans. M. C. KROES*; I. TENDOLKAR; G. A. VAN WINGEN; J. A. VAN WAARDE; B. A. STRANGE; G. FERNÁNDEZ. *Donders Inst. for Brain, Cognition, and Behaviour, Radboud Univ. Med. Ctr., Academic Med. Ctr. Univ. of Amsterdam, Rijnstate hospital, UPM, Donders Inst. for Brain, Cognition, and Behaviour, Radboud Univ. Nijmegen.*

10:00 III28 **572.07** Probing rule-based schematic memory representations. I. WAGNER*; M. VAN BUUREN; M. VAN DER LINDEN; M. KROES; G. FERNÁNDEZ. *Donders Inst. for Brain, Cognition and Behaviour, Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen.*

11:00 III29 **572.08** The critical role of prefrontal cortex in strengthening of episodic memories through reconsolidation. M. SANDRINI*; N. CENSOR; J. MISHOE; L. COHEN*. *NINDS-NIH.*

8:00 III30 **572.09** Knowing you know: A transcranial direct current stimulation (tDCS) study of the feeling-of-knowing in episodic memory. E. F. CHUA*; S. MEYLER. *Brooklyn Col., Grad. Ctr. of the City Univ. of New York.*

9:00 III31 **572.10** Visual evoked potentials in humans are enhanced by long-term visuo-gustatory conditioning. I. VIEMOSE; C. LILJENDAHL; J. L. LAUGESEN; P. MOELLER; W. L. P. BREDIE; G. R. CHRISTOFFERSEN*. *Univ. of Copenhagen.*

10:00 III32 **572.11** Context memory and remembering recruit distinct neural substrates. S. D. SLOTNICK*; P. P. THAKRAL. *Boston Col., Univ. of Texas at Dallas.*

11:00 III33 **572.12** Sleep-dependent consolidation preferentially benefits pattern separation over pattern completion. J. R. JAMES*; C. B. KIRWAN. *Brigham Young Univ.*

8:00 III34 **572.13** Neural correlates of primacy and recency effects in macaque memory retrieval network. K. MIYAMOTO*; T. OSADA; Y. ADACHI; T. MATSUI; H. M. KIMURA; T. WATANABE; R. SETSUIE; Y. MIYASHITA. *Univ. Tokyo, Univ. Tokyo.*

9:00 III35 **572.14** Applying the logic of ARP´s hypermnesia hypothesis to reduce the intensity of negative emotions. V. M. SOLIS*, SR. *Psychology Dept. Natl. Univ. of Mexico.*

10:00 III36 **572.15** Activation in **POSTER**ior parietal cortex correlates with subjective familiarity: Evidence from retrospective confidence ratings and false alarms. J. L. VINCENT*. Harvard Univ.

11:00 III37 **572.16** Dynamic changes in interregional functional connectivity strength during autobiographical memory retrieval. C. INMAN*; G. A. JAMES; C. CAMPANELLA; T. PATHMAN; P. BAUER; S. HAMANN. *Emory Univ., Univ. of Arkansas for Med. Sci., Univ. of North Carolina at Greensboro.*

8:00 III38 **572.17** Retrieval success effects in the nucleus accumbens are coded in early local field potentials and neural theta oscillations: Evidence from human intracranial recordings. E. M. BAUCH*; T. ZAEHLE; H. HINRICHS; F. C. SCHMITT; J. VOGES; H. HEINZE; N. BUNZECK. *Univ. Med. Ctr. Hamburg-Eppendorf, Otto-von-Guericke Univ., Leibniz Inst. for Neurobio.*

9:00 III39 **572.18** Parahippocampal and retrosplenial cortex are more active during remembering than during episodic future thinking. A. W. GILMORE*; S. M. NELSON; K. B. MCDERMOTT. *Washington Univ.*

10:00 III40 **572.19** Associative retrieval mediates free recall of unrelated words. M. KATKOV; S. ROMANI; M. V. TSODYKS*. *Weizmann Inst. of Sci., Columbia Univ., Radboud Univ.*

11:00 III41 **572.20** Source memory performance is modulated by transcranial direct-current stimulation over the left **POSTER**ior parietal cortex. C. LO*; N. CHEN; N. G. MUGGLETON; C. JUAN; S. CHENG. Inst. of Cognitive Neuroscience, Natl. Central Univ.

8:00 III42 **572.21** Brain Derived Neurotrophic Factor is correlated with memory processes in healthy women. L. C. MORADO*; J. RAMIREZ-EMILIANO; M. S. SOLIS-ORTIZ. *Univ. of Guanajuato, Univ. of Guanajuayo.*

9:00 III43 **572.22** ● Relationship between physiological and clinical measures of prospective memory. S. A. RASKIN*; N. KAUR; C. PEDRO. *Trinity Col.*

10:00 III44 **572.23** Gamma bursts surf alpha waves: An ECoG study. A. BAHRAMISHARIF*; M. A. J. VAN GERVEN; E. J. AARNOUTSE; M. R. MERCIER; T. H. SCHWARTZ; J. J. FOXE; N. F. RAMSEY; O. JENSEN. *Radboud Univ. Nijmegen, Utrecht Univ., Albert Einstein Col. of Med., Weill Med. Col. Cornell Univ.*

11:00 III45 **572.24** Local entrainment of alpha oscillations by visual stimuli phasically modulates perception. E. SPAAK*; F. P. DE LANGE; O. JENSEN. *Donders Inst. For Brain, Cognition, and Behaviour.*

Tue. AM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

573. Working Memory and Executive Function III

Theme F: Cognition and Behavior

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

8:00 III46 **573.01** Computational model of exponentially decaying persistent firing for encoding stimulus history. Z. TIGANJ*; K. SHANKAR; M. HOWARD. *Boston Univ.*

9:00 JJJ1 **573.02** ● Increasing functional connectivity with cognitive load. L. AHONEN*; M. HUOTILAINEN. *Työterveyslaitos, Helsinki Univ.*

10:00 JJJ2 **573.03** Oscillatory visual activity associated with preparatory attention and working memory maintenance. B. CRITTENDEN*; M. P. NOONAN; N. ADAMIAN; M. STOKES. *OHBA.*

11:00 JJJ3 **573.04** EnygmaGym: Static versus dynamic visual computer based training results in discrete morphometric changes. K. FUJIMOTO*; A. KATZMAN; S. N. NIOGI; B. B. ALLEN; M. FASO; U. RAJASHEKAR; I. TSERETOPOULOS; J. MARUTA; J. GHAJAR; B. E. KOSOFSKY. *Weil Cornell Med. Col., Weil Cornell Med. Col., NewYork-Presbyterian Hosp., NewYork-Presbyterian Hosp., Brain Trauma Fndn.*

8:00 JJJ4 **573.05** ▲ Interaction effects of BDNF and COMT on brain resting-state regional homogeneity. W. CHEN*; C. CHEN; B. ZHU; X. LEI; Q. DONG. *State Key Lab. of Cognitive Neurosci. and Learning.*

9:00 JJJ5 **573.06** Neural basis of object-based shifting of attention in working memory. B. PETERS*; B. RAHM; J. KAISER; C. BLEDOWSKI. *Goethe-University, Univ. Med. Ctr. Mainz.*

10:00 JJJ6 **573.07** Nicotine-deprived smokers' WM capacity differences in strategy use and recruitment of brain regions linked to goal maintenance during a WM task. A. S. WEIGARD*; S. WILSON; C. HUANG-POLLOCK. *The Pennsylvania State Univ.*

11:00 JJJ7 **573.08** Decoding visual short-term memory contents in occipital and parietal cortices under distraction. K. BETTENCOURT*; Y. XU. *Harvard Univ.*

8:00 JJJ8 **573.09** ACC control of DLPFC interneurons tunes beta/gamma oscillation and inter-areal feedback in a laminar spiking model. J. S. SHERFEY*; N. KOPELL. *Boston University, Sch. of Med., Boston Univ.*

9:00 JJJ9 **573.10** The association between cognitive performance, somatic perception, and task-related brain activity in fibromyalgia patients and healthy volunteers. B. WALITT*; M. KHATIWADA; M. CEKO; J. VAN METER; R. GRACELY. *Medstar Washington Hosp. Ctr., Georgetown Univ., NIH, Univ. of North Carolina.*

10:00 JJJ10 **573.11** Acute sleep deprivation shows readily reversible effects on the Multi-Source Interference Task (MSIT). M. AULAKH*; S. R. FLETCHER; C. EIERUD; J. LISINKI; B. HAMILTON; S. M. LACONTE. *VTCRI.*

11:00 JJJ11 **573.12** Neural representation of rules at different hierarchical levels. D. PISCHEDDA*; K. GÖRGEN; J. HAYNES; C. F. REVERBERI. *Bernstein Ctr. For Computat. Neuroscience, Charité Universitätsmedizin, Univ. of Milano-Bicocca, Berlin Ctr. for Advanced Neuroimaging, Charité Universitätsmedizin, Berlin Sch. of Mind and Brain, Humboldt Univ., Cluster of Excellence NeuroCure, Charité Universitätsmedizin, Humboldt Univ. zu Berlin.*

8:00 JJJ12 **573.13** The brain's response to cognitive demand under drug-induced Impairment: A topiramate study. S. E. MARINO*; C. WANG; S. HAN; I. SAMUEL; J. CIBULA; M. DING. *Univ. of Minnesota, Univ. of Florida.*

9:00 JJJ13 **573.14** Testing the biased competition model of attention in the selection of abstract task rules. Y. SHEU*; S. COURTNEY. *Johns Hopkins Univ., Johns Hopkins Univ., Kennedy Krieger Inst.*

10:00 JJJ14 **573.15** Increased human hippocampal theta oscillations are associated with the maintenance of temporal order information in working memory. L. HSIEH*; A. D. EKSTROM; K. SHAHLAIE; S. T. FARIAS; M. SEYAL; C. RANGANATH. *UC Davis, UC Davis, UC Davis, UC Davis.*

11:00 JJJ15 **573.16** Short-term retention of visual information is supported by mechanisms of feature-based attention. M. H. SNEVE*; K. K. SREENIVASAN; S. MAGNUSSEN. *Res. Group For Lifespan Changes In Brain and Cognition, Univ. of Oslo, Helen Wills Neurosci. Institute, Univ. of California, Berkeley, Ctr. for the Study of Human Cognition, Univ. of Oslo.*

8:00 JJJ16 **573.17** Causal network dynamics of fluid reasoning components. E. SHOKRI-KOJORI*; C. MCADAMS; D. KRAWCZYK. *The Univ. of Texas at Dallas, Ctr. for BrainHealth, The Univ. of Texas Southwestern Med. Ctr.*

9:00 JJJ17 **573.18** Quantitative anatomical evidence for separable dorsolateral and ventrolateral prefrontal networks. R. S. BLUMENFELD*; M. D'ESPOSITO. *UC Berkeley.*

10:00 JJJ18 **573.19** Human prefrontal cortex independently encodes future task-sequences and their order. I. MOMENNEJAD*; C. REVERBERI; J. HAYNES. *Princeton Univ., Univ. Milano-Bicocca, Bernstein Ctr. for Computat. Neurosci.*

11:00 JJJ19 **573.20** The neural basis of hypothesis formation and evaluation. N. MARINSEK*; B. O. TURNER; M. B. MILLER. *Univ. of California, Santa Barbara.*

8:00 JJJ20 **573.21** Attentional saliency modulates non-Bayesian updating and sequencing behaviors in a large-scale neurocognitive model. M. PHILLIPS*; R. UHLENBROCK; M. ZIEGLER; Y. SUN; H. WANG; R. THOMSON; C. LEBIERE; R. BHATTACHARYYA. *HRL Labs., Sch. of Biomed. Informatics, Univ. of Texas Hlth. Sci. Ctr. at Houston, Human-Computer Interaction Institute, Carnegie Mellon Univ.*

9:00 JJJ21 **573.22** Effect of sound pressure level on brain function during memory task using fNIRS. F. INOUE*; U. YAMAMOTO; T. HIROYASU. *Doshisha Univ.*

10:00 JJJ22 **573.23** ● Longer reaction time is associated with increased task-specific cognitive control and decreased default mode activity. A. D. BARBER*; B. S. CAFFO; J. J. PEKAR; S. H. MOSTOFSKY. *Kennedy Krieger Inst., Johns Hopkins Sch. of Med., Johns Hopkins Sch. of Publ. Hlth.*

11:00 JJJ23 **573.24** Multi-task functional connectivity reveals the human brain's dynamic network architecture and stable functional backbone. M. W. COLE*; D. S. BASSETT; J. D. POWER; S. E. PETERSEN. *Washington Univ., Univ. of California, Santa Barbara.*

8:00 JJJ24 **573.25** Focal lesions lead to functional plasticity in the roles of individual brain regions within large-scale networks. C. GRATTON*; M. D'ESPOSITO. *Univ. of California, Berkeley.*

9:00 JJJ25 **573.26** Global brain organization is disrupted in children with ADHD. J. R. COHEN*; A. D. BARBER; M. B. NEBEL; M. D'ESPOSITO; S. H. MOSTOFSKY. *UC Berkeley, Kennedy Krieger Inst.*

10:00 JJJ26 **573.27** Assessing serial order processing using a novel P3 oddball paradigm: A proof of concept investigation. W. C. HOCHBERGER*; J. AXELROD; T. CARRATHERS; S. HILL. *Rosalind Franklin Univ. of Med. and Sci., Rosalind Franklin Univ. of Med. and Sci.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

574. Executive Function: Corticostriatal Mechanisms

Theme F: Cognition and Behavior

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

8:00 JJJ27 **574.01** Primate prefrontal activity during simultaneous performance of spatial attention and spatial working memory tasks. K. WATANABE*; S. FUNAHASHI. *The Japan Society for the Promotion of Sci. (JSPS), Japan Society for the Promotion of Sci., Kyoto Univ.*

9:00 JJJ28 **574.02** Exploring numerosity representation in the prefrontal and parietal cortices of numerically naïve monkeys. P. VISWANATHAN*; A. NIEDER. *Univ. of Tübingen.*

10:00 JJJ29 **574.03** Dopamine modulates numerical rule coding in the primate prefrontal cortex. T. OTT; S. N. JACOB; A. NIEDER*. *Univ. Tuebingen.*

11:00 JJJ30 **574.04** Protected storage of working memory in the primate parietal, not prefrontal cortex. S. N. JACOB*; A. NIEDER. *Tuebingen Univ., Charité.*

8:00 JJJ31 **574.05** The function of the medial prefrontal cortex during a working memory task in sexually motivated male rats. M. L. ALMANZA*; M. HERNANDEZ-GONZALEZ; M. E. OLVERA-CORTES; B. E. GUTIERREZ-GUZMAN; M. A. GUEVARA. *Inst. De Neurociencias, Ctr. de Investigacion Biomedica de Michoacan.*

9:00 JJJ32 **574.06** Memory coding properties of central thalamic neurons: relationship to prefrontal neuronal coding. R. L. A. MILLER; C. J. BATES; K. D. ONOS; B. A. WORMWOOD; M. J. FRANCOEUR; B. M. GIBSON; R. G. MAIR*. *Univ. New Hampshire.*

10:00 JJJ33 **574.07** Memory-coding properties of prefrontal cortical neurons in the rat. K. D. ONOS*; B. A. WORMWOOD; R. L. A. MILLER; M. J. FRANCOEUR; E. F. HEBERT; A. W. BLAKE; B. M. GIBSON; R. G. MAIR. *Univ. of New Hampshire.*

11:00 JJJ34 **574.08** Inactivation of medial prefrontal cortex or acute stress impairs performance of an odor span task in rats. D. A. DAVIES; J. J. MOLDER; Q. GREBA; J. G. HOWLAND*. *Univ. of Saskatchewan, Univ. Saskatchewan.*

8:00 JJJ35 **574.09** Prefrontal and striatal interactions during habit learning and strategy switching. K. S. CASTEN*; M. SHAPIRO. *Icahn Sch. of Med. At Mount Sinai, Icahn Sch. of Med. at Mount Sinai.*

9:00 JJJ36 **574.10** Neural activity of abstract quantitative rules applied to spatial and numerical magnitudes: Comparison of prefrontal, premotor and cingulate motor cortex. A. EISELT*; A. NIEDER. *Inst. of Neurobio.*

10:00 JJJ37 **574.11** Neuronal activity in prelimbic and orbitofrontal cortex during operant set shifting in rats. A. DEL ARCO*; Y. KIM; J. WOOD; J. PARK; B. MOGHADDAM. *Univ. of Pittsburgh, Univ. Complutense.*

11:00 JJJ38 **574.12** Enhanced functional connectivity between prefrontal cortex and striatum during associative learning of a categorization task. E. G. ANTZOULATOS*; R. LOONIS; E. K. MILLER. *Picower Inst. for Learning & Memory, MIT.*

8:00 JJJ39 **574.13** Orbitofrontal neurons encode reward certainty. D. E. MOORMAN*; G. ASTON-JONES. *Med. Univ. of SC.*

9:00 JJJ40 **574.14** Confidence judgments and prefrontal neuronal activity in monkeys performing a spatial working memory task. A. TANAKA*; S. FUNAHASHI. *Kyoto Univ., Kyoto Univ.*

10:00 JJJ41 **574.15** The role of ventral prefrontal cortex in auditory, visual and audiovisual working memory. B. PLAKKE*; J. HWANG; M. D. DILTZ; L. M. ROMANSKI. *Univ. of Rochester Sch. of Med., Johns Hopkins Univ. Sch. of Med.*

11:00 JJJ42 **574.16** The effect of inactivation of dorsolateral prefrontal cortex (DLPFC) in categorical and non-categorical reversal by transcranial magnetic stimulation (TMS) in monkeys. T. HOSOKAWA*; Y. MATSUI; M. YAMADA; T. IIJIMA; K. TSUTSUI. *Tohoku Univ.*

8:00 JJJ43 **574.17** Logical reasoning in primates: Monkeys' prefrontal cortex neurons are modulated during manipulation but not during learning of new information. F. DI BELLO*; V. MIONE; A. GENOVESIO; E. BRUNAMONTI; S. FERRAINA. *Sapienza Univ. of Rome.*

9:00 JJJ44 **574.18** Pair selectivity of primate prefrontal neurons in visual paired association performances. S. FUNAHASHI*; J. M. ANDREAU. *Kyoto Univ. Kokoro Res. Ctr., Kyoto Univ.*

10:00 JJJ45 **574.19** The contribution of the amygdala to stimulus-reward related neural activity within the orbital and medial prefrontal cortex of rhesus macaques during learning. J. A. RIPPLE; P. H. RUDEBECK*; A. R. MITZ; E. A. MURRAY. *Natl. Inst. of Mental Hlth.*

11:00 JJJ46 **574.20** The anterior claustrum and flexible behavior in the rat: A comparison of NMDA and dynorphin-saporin lesions. A. C. TALK*; D. BERNASCONI; Z. STEVENS; K. GRASBY; L. EDELSTEIN; J. SMYTHIES; B. RUSSELL. *Univ. of New England, Medimark Corp., Univ. of California, Advanced Targeting Systems.*

8:00 JJJ47 **574.21** A Bayesian model for neural coding. S. BEHSETA*; B. ZHOU; D. MOORMAN; B. SHAHBABA; H. OMBAO. *California State Univ., Univ. of California at Irvine, Med. Univ. of South Carolina, Univ. of California at Irvine.*

POSTER

575. Decision Making: Behavioral and Pharmacological Studies

Theme F: Cognition and Behavior

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

8:00 JJJ48 **575.01** Pramipexole disrupts synaptic plasticity the ca1 area of the hippocampus of rats that develop contrafreeloading for water, an animal model of compulsive behavior. C. SCHEPISI*; S. PICCININ; S. S. D'ORONZIO; A. PIGNATARO; M. AMMASSARI-TEULE; R. NISTICÒ; P. NENCINI. *Dept. of Physiol. and Pharmacology, Sapienza Univ., European Ctr. for Brain Res., IRCSS Santa Lucia Fndn.*

9:00 JJJ49 **575.02** The early cognitive, neurophysiological, and neuropharmacological effects of a slow MPTP-induced dopaminergic lesion in macaque monkeys prior to motor symptoms. C. R. WILSON*; F. M. STOLL; M. C. M. FARAUT; J. VEZOLI; V. LEVIEL; E. PROCYK. *Inserm U846, Stem Cell & Brain Res. Inst., Univ. de Lyon, UCBL, Ernst Strüngmann Inst. (ESI) for Neurosci. in Cooperation with Max Planck Society.*

10:00 JJJ50-DP10 **575.03** Locus coeruleus neuronal activity during stop task performance in rats. A. BARI*; M. D. RIEDY; G. ASTON-JONES. *MUSC.*

11:00 JJJ51 **575.04** Effects of acute yohimbine on rat inhibitory control tested with the countermanding paradigm. J. BEUK*; R. J. BENINGER; E. M. MECHEFSKE; M. PARÉ. *Queen's Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 JJJ52 **575.05** Behavioral and neurochemical characterization of mutant mice lacking Lphn3, a gene implicated in ADHD and addiction. C. A. ORSINI*; D. WALLIS; B. SETLOW. *UNIVERSITY OF FLORIDA, TEXAS A&M UNIVERSITY.*

9:00 JJJ53 **575.06** Population coding of decision contexts by ensembles of striatal neurons. M. LAUBACH*; J. COCKBURN; E. Y. KIMCHI; M. J. FRANK. *Yale Univ., John B. Pierce Lab., Brown Univ., Brigham and Women's Hosp.*

10:00 JJJ54 **575.07** Hierarchical population coding of trial phases by the striatal neurons during a choice task. M. ITO*; K. DOYA. *Okinawa Inst. of Sci. and Technol.*

11:00 JJJ55 **575.08** Varying levels of craniotopy and retinotopy in SEF during a sequential saccade task. M. R. SILVER*; E. K. MILLER. *MIT.*

8:00 JJJ56 **575.09** Contrastive roles of the two visual thalamic regions in perceptual choices. A. NIKKUNI*; A. MIYAMOTO; K. NUMATA; Y. KOMURA. *AIST, Ibaraki Prefectural Univ. of Hlth. Sci.*

9:00 JJJ57 **575.10** Activity in the mouse pedunculopontine tegmental nucleus reflects trial history. J. D. COSTABILE; J. A. THOMPSON; G. FELSEN*. *U. of Colorado, Sch. of Med., U. of Colorado Sch. of Med.*

10:00 JJJ58 **575.11** From learning-set to task-set in macaque monkeys. M. C. FARAUT*; E. PROCYK; C. R. E. WILSON. *INSERM U846, Stem Cell and Brain Res. Inst., Univ. de Lyon, UCBL.*

11:00 JJJ59 **575.12** Information and value influences on foraging decisions. D. L. BARACK*; J. GARIEPY; M. L. PLATT. *Duke Univ., Duke Univ.*

8:00 JJJ60 **575.13** An oculomotor task for testing metacognitive monitoring of rule selection in monkeys. Z. ABZUG*; M. A. SOMMER. *Duke Univ.*

9:00 JJJ61 **575.14** Social isolation during adolescence but not adulthood modifies outcome-based decision-making. E. A. HINTON*; S. L. GOURLEY. *Georgia State Univ., Yerkes Natl. Primate Res. Ctr., Emory Univ.*

10:00 JJJ62 **575.15** Changes in behavior and lateral intraparietal neuron activity reveal diverse adjustments in decision-making processes after errors. B. PURCELL*; R. KIANI. *New York Univ.*

11:00 JJJ63 **575.16** Spatial working memory impairment following selective lesions of the thalamic reuniens. J. A. PRASAD*; Y. CHUDASAMA. *McGill Univ.*

8:00 JJJ64 **575.17** ● Functional disconnection of the ventral hippocampus and nucleus accumbens affects decision-making. A. R. ABELA*; Y. CHUDASAMA. *McGill Univ.*

9:00 JJJ65 **575.18** Cognitive dysfunction in a transgenic rat model of Alzheimer disease before and after amyloid beta plaque deposition. E. N. WILSON JR; A. R. ABELA; V. KNIGHT; Y. CHUDASAMA; A. CUELLO*. *McGill Univ., McGill Univ.*

10:00 JJJ66 **575.19** What's different in fast and slow learning rats on a directional control task? B. CHENG*; Y. YUAN; A. SPINRAD; E. HERRING; J. SI. *Arizona State Univ.*

11:00 JJJ67 **575.20** Neuronal circuitry for cost-benefit decision in foraging in Pleurobranchaea and its agent-based simulation. R. GILLETTE*; K. TIAN; N. RYCKMAN; J. BROWN. *Univ. Illinois, Univ. of Illinois, Univ. of Illinois.*

8:00 JJJ68 **575.21** Assessing the multidimensional integration of reward value in the pigeon. N. KASTIES*; O. GUNTURKUN; M. STUTTGEN. *Bochum Univ.*

9:00 JJJ69 **575.22** ▲ Inhaling oxytocin increases contagious yawning in rhesus macaques. D. L. XIE*; J. GARIEPY; E. DU; M. L. PLATT. *Duke Univ., Duke Univ., Duke Univ.*

POSTER

576. Hippocampus: Subiculum Physiology and Function

Theme F: Cognition and Behavior

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

8:00 JJJ70 **576.01** Activation of granule cells increases neurogenesis in the adult dentate gyrus. S. BLANKVOORT*; M. UEMURA; A. TASHIRO. *Kavli Inst. For Systems Neurosci., Norwegian Univ. of Sci. and Technol., Warwick-NTU Neurosci. programme, Sch. of Biol. Sciences, Nanyang Technological Univ., Warwick-NTU Neurosci. programme, Sch. of Life Sciences, Univ. of Warwick.*

9:00 KKK1 **576.02** Role of immature neurons in the adult dentate gyrus for spatial memory processing after initial acquisition. A. LUCHETTI*; M. UEMURA; F. OSCHMANN; L. ČULIG; A. TASHIRO. *Kavli Inst. for Systems Neuroscience, Norwegian Univ. of Sci. and Technol., Warwick-NTU Neurosci. programme, Sch. of Biol. Sciences, Nanyang Technological Univ., Warwick-NTU Neurosci. programme, Sch. of Life Sciences, Univ. of Warwick.*

10:00 KKK2 **576.03** NMDA receptor mediates learning-induced circuit formation associated with adult neurogenesis in the dentate gyrus. R. R. NAIR*; A. LUCHETTI; I. ÅMELLEM; A. TASHIRO. *The Kavli Insitute for Systems Neurosci. and Ctr. for the Biol. of Memory, Warwick-NTU Neurosci. programme, Sch. of Biol. Sciences, Nanyang Technological Univ., Warwick-NTU Neurosci. programme, Sch. of Life Sciences, Univ. of Warwick.*

11:00 KKK3 **576.04** Chronic fluoxetine treatment increases the dendritic complexity of immature granule cells in the adult dentate gyrus. I. AAMELLEM*; A. TASHIRO. *Norwegian Univ. of Sci. and Technol. and St. Olavs Hosp., Nanyang Technological Univ., Univ. of Warwick.*

8:00 KKK4 **576.05** Chronic antidepressant treatment enhances the capacity for context discrimination in the hippocampus. A. SURGET*; Y. IBARGUEN-VARGAS; M. H. BLYSTAD; A. TASHIRO. *Norwegian Univ. of Sci. and Technol. and St. Olavs Hosp., Nanyang Technological Univ., Univ. of Warwick.*

9:00 KKK5 **576.06** Optogenetic identification of granule cell activity in the dentate gyrus of behaving mice. N. Z. BORGESIUS*; A. TASHIRO. *NTNU, Nanyang Technological Univ., Sch. of Biol. Sci., Sch. of Life Sciences, Univ. of Warwick.*

10:00 KKK6 **576.07** Role of synaptic plasticity in controlling information flow in the hippocampus during novelty. T. KITANISHI*; S. UJITA; M. FALLAHNEZHAD; N. KITANISHI; Y. IKEGAYA; A. TASHIRO. *Kavli Inst. Systems Neurosci, NTNU, Univ. of Tokyo, Nanyang Technological Univ., Univ. of Warwick, Ctr. for Information and Neural Networks.*

11:00 KKK7 **576.08** Using virtual reality to study hippocampal remapping in rats during 2D navigation. D. ARONOV*; D. W. TANK. *Princeton Univ.*

8:00 KKK8 **576.09** ● Selective activation of M1 and M4 muscarinic receptors and object recognition memory performance in rats. C. R. GALLOWAY*; E. P. LEBOIS; N. A. HERNANDEZ; S. L. SHAGARABI; J. R. MANNS. *Emory Univ., Georgia State Univ.*

9:00 KKK9 **576.10** ● Effects of selective activation of M1 muscarinic receptors on hippocampal oscillations and spatial representations in rats. E. P. LEBOIS*; M. J. HAMM; A. I. LEVEY; J. R. MANNS. *Emory Univ., Emory Univ.*

10:00 KKK10 **576.11** Temporal context and recognition memory in rats. J. B. TRIMPER*; C. R. GALLOWAY; N. A. HERNANDEZ; S. L. SHAGARABI; P. B. SEDERBERG; J. R. MANNS. *Emory Univ., George State Univ., The Ohio State Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 KKK11 **576.12** Electrical stimulation of the amygdala elicits Gamma coherence between CA1 and CA3 in the hippocampus. D. I. BASS*; Z. NIZAM; A. WANG; M. JOSEPH. *Emory Univ., Emory Univ., Emory Univ.*

8:00 KKK12 **576.13** Deliberative decision making: Is the hippocampus necessary for vicarious trial and error behaviour and performance in a spatial delay discounting task? D. BETT*; L. H. MURDOCH; S. ANASTASSIOU; E. R. WOOD; P. A. DUDCHENKO. *Univ. of Edinburgh, Univ. of Stirling.*

9:00 KKK13 **576.14** Hippocampal place cells in CA3 encode future destinations on a double Y maze. E. ALLISON; P. A. DUDCHENKO; E. R. WOOD*. *Univ. of Edinburgh, Univ. of Stirling.*

10:00 KKK14 **576.15** ▲ Do place cells encode goals or routes? R. M. GRIEVES; E. R. WOOD; P. A. DUDCHENKO*. *Univ. Stirling, Univ. of Edinburgh.*

11:00 KKK15 **576.16** Saccadic eye movements are phase aligned to a low frequency oscillation in the macaque hippocampus. R. MONTEFUSCO-SIEGMUND*; T. K. LEONARD; K. L. HOFFMAN. *York Univ.*

8:00 KKK16 **576.17** ▲ Cross frequency interactions in macaque hippocampus surrounding sharp wave ripple events. J. M. MIKKILA*; T. K. LEONARD; R. MONTEFUSO-SIEGMUND; K. L. HOFFMAN. *York Univ.*

9:00 KKK17 **576.18** Imaging Ca^{2+} activity in GABAergic septo-hippocampal projecting axons during awake behaviour. P. KAIFOSH*; M. LOVETT-BARRON; G. F. TURI; A. LOSONCZY. *Columbia Univ.*

10:00 KKK18 **576.19** Field potential and unit activity from hippocampal regions in urethane anesthetized fruit bats, Carollia perspicillata. R. ORMAN; M. STEWART; S. E. FOX*. *Downstate Med. Ctr.*

11:00 KKK19 **576.20** Hippocampal remapping involves competition between entorhinal inputs. J. DICKINSON*; A. WEIBLE; D. ROWLAND; C. KENTROS. *Univ. of Oregon, Univ. of Oregon, NTNU.*

8:00 KKK20 **576.21** Olfactory-driven oscillations in the mouse hippocampus. A. B. TORT*; Y. YANOVSKY; M. CIATIPIS; A. VYSSOTSKI; A. DRAGUHN; J. BRANKACK. *Brain Institute, UFRN, Heidelberg Univ., Heidelberg Univ., Univ. of Zürich.*

POSTER

577. Molecular Mechanisms of Memory Reconsolidation and Retrieval

Theme F: Cognition and Behavior

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

8:00 KKK21 **577.01** Involvement of prelimbic cortex cannabinoid type-1 receptors in the disruptive effect of cannabidiol on contextual fear memory reconsolidation. C. J. STERN*; L. GAZARINI; M. S. HAMES; A. W. ZUARDI; R. N. TAKAHASHI; L. J. BERTOGLIO. *Univ. Federal De Santa Catarina, Univ. de São Paulo.*

9:00 KKK22 **577.02** Comparing the role of α1- and β-adrenoceptors in consolidation and reconsolidation of adaptive and inappropriate contextual fear memories. L. GAZARINI*; C. A. J. STERN; A. P. CAROBREZ; L. J. BERTOGLIO. *Univ. Federal De Santa Catarina.*

10:00 KKK23 **577.03** Fear extinction and reinstatement are dependent on distinct changes of cellular basis in medial prefrontal cortex. N. IMAMURA*; Y. MIURA; C. TESHIROGI; H. SHEN; N. MATSUKI; H. NOMURA. *Lab. of Chem. Pharmacol. Grad. Sch. of Pharmaceut. Sci.*

11:00 KKK24 **577.04** Peripheral stress impairs acquisition of fear memories via vagal afferents. E. TOMIKAWA*; H. NOMURA; N. MATSUKI. *The Univ. of Tokyo.*

8:00 KKK25 **577.05** The frontal association cortex is critical for formation but not retrieval of contextual fear memory. H. NOMURA*; D. NAKAYAMA; Z. BARAKI; A. NONAKA; N. MATSUKI. *Univ. Tokyo.*

9:00 KKK26 **577.06** Late Arc/Arg3.1 synthesis after retrieval is necessary for persistence of contextual fear memory. D. NAKAYAMA*; Y. YAMASAKI; N. MATSUKI; H. NOMURA. *Lab. of Chem. Pharmacol.*

10:00 KKK27 **577.07** Measuring hippocampal gene expression in NFIL3 Knock-Out mice during consolidation and reconsolidation using CAGE sequencing. L. R. VAN DER KALLEN*; M. M. LENSELINK; I. M. C. BAKKER; L. M. PARDO CORTES; L. S. VIJFHUIZEN; A. M. J. M. VAN DEN MAAGDENBERG; S. SPIJKER; A. B. SMIT; R. E. VAN KESTEREN. *VU Univ., VU Med. Ctr., Leiden Univ. Med. Ctr.*

11:00 KKK28 **577.08** A role for amyloid-beta in memory stabilization. P. S. FINNIE*; J. PERDRIZET; K. NADER. *McGill Univ.*

8:00 KKK29 **577.09** Investigating the mechanism of memory reconsolidation in fear associated memories. S. BHATTACHARYA; W. KIMBLE; D. BHATTACHARYA; M. BUABEID; A. ALHOWAIL; M. DHANASEKARAN; M. ESCOBAR; V. D. SUPPIRAMANIAM*. *Auburn Univ., Auburn Univ.*

9:00 KKK30 **577.10** Nuclear Factor κB-dependent histone acetylation of Camk2d gene is specifically involved in memory persistence. N. FEDERMAN; V. DE LA FUENTE; G. ZALCMAN; A. ROMANO*. *Univ. of Buenos Aires, Univ. of Buenos Aires, FCEN, FBMC.*

10:00 KKK31 **577.11** Transcriptome analysis reveals differences in processes that regulate gene expression during memory consolidation and retrieval. L. PEIXOTO*; M. WIMMER; S. POPLAWSKI; N. R. ZHANG; T. ABEL. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

11:00 KKK32 **577.12** Histone acetylation enhances hippocampus- or perirhinal cortex-dependent non-affective memory consolidation and retrieval. F. D. DUTRA*; A. CRESTANI; F. BOOS; J. HAUBRICH; R. SIERRA; J. DURAN; Q. ZANONA; F. SANTANA; L. FLORES; J. QUILLFELDT; L. DE OLIVEIRA ALVARES. *Univ. Federal do Rio Grande do Sul.*

8:00 KKK33 **577.13** Arc expression in the insular cortex is involved in the updating after retrieval of an aversive memory trace. K. R. GUZMAN-RAMOS*; A. VENKATARAMAN; P. MORIN; F. BERMUDEZ-RATTONI. *Inst. de Fisiologia Celular UNAM, IFC, Inst. de Neurobiología, Inst. de Fisiologia Celular.*

9:00 KKK34 **577.14** Rac in the basolateral amygdala is crucial for the reconsolidation of auditory fear memory in rats. Z. DING*; P. WU; W. ZHU; H. SHEN; L. LU. *Natl. Inst. On Drug Dependence.*

10:00 KKK35 **577.15** Memory consolidation and reconsolidation in starlings: Exploring the interaction between interference and sleep. T. P. BRAWN*; H. C. NUSBAUM; D. MARGOLIASH. *Univ. of Chicago.*

11:00 KKK36 **577.16** Retrieval and reconsolidation of object recognition memory are independent processes in the perirhinal cortex. I. BALDERAS*; M. SANTOYO-ZEDILLO; C. RODRIGUEZ-ORTIZ; F. BERMUDEZ-RATTONI. *IFC-UNAM.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 KKK37 **577.17** Effects of dopamine D1 receptor antagonism on the reconsolidation of contextual fear memory. C. STEVENSON*; J. L. C. LEE; J. P. VOIGT; F. C. HEATH. *Univ. Nottingham, Univ. of Birmingham.*

9:00 KKK38 **577.18** ● Transcriptional repression of the S1P Receptor Gpr12 regulates memory. D. G. WHEELER*; D. ELOW; R. JOHNSON; C. O'CARROLL; J. LAPIRA; W. JIANG; R. BARIDO; R. PETROSKI; E. MASSARI; R. SCOTT; T. TULLY; M. PETERS. *Dart NeuroScience.*

10:00 KKK39 **577.19** Social memory persistence in socially isolated adult mice is supported by hippocampal neurogenesis. G. S. PEREIRA*; B. M. M. MONTEIRO; F. A. MOREIRA; A. R. MASSENSINI; M. F. D. MORAES. *UFMG, UFMG.*

POSTER

578. Animal Learning and Memory: Cortical and Hippocampal Circuits III

Theme F: Cognition and Behavior

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

8:00 KKK40 **578.01** Megamap: Continuous attractor model for place cells representing large environments. K. R. HEDRICK*; K. ZHANG. *Johns Hopkins Univ.*

9:00 KKK41 **578.02** Differential effects of diazepam, zolpidem and THIP on non-REM sleep neurophysiology in the rat. F. KERSANTÉ*; M. W. JONES. *Univ. of Bristol.*

10:00 KKK42 **578.03** Recognition errors suggest quick familiarity and slow recollection in rhesus monkeys. B. M. BASILE*; R. R. HAMPTON. *Emory Univ.*

11:00 KKK43 **578.04** ▲ Temporary inactivations of the hippocampus and prefrontal cortex impair memory for sequences of events. C. R. QUIRK*; T. A. ALLEN; N. J. FORTIN. *Univ. of California Irvine, Univ. of California Irvine.*

8:00 KKK44 **578.05** Pathological high frequency oscillations in a chronic model of temporal lobe epilepsy occur during movement-related theta oscillations. L. A. EWELL*; K. B. FISCHER; L. LIANG; S. LEUTGEB; J. K. LEUTGEB. *UC-San Diego, Univ. of California.*

9:00 KKK45 **578.06** Optogenetic control of the hippocampal theta rhythm. M. P. BRANDON*; M. L. DONEGAN; J. K. LEUTGEB; S. LEUTGEB. *UC San Diego, UCSD.*

10:00 KKK46 **578.07** Role of hipppocampal AMPA receptors in the retrieval of long-term spontaneous object recognition memory. E. TAKANO*; K. YAMADA; Y. ICHITANI. *Univ. of Tsukuba.*

11:00 KKK47 **578.08** Non-spatial computations throughout the longitudinal dentate gyrus axis in support of working memory performance. V. C. PIATTI*; E. HWAUN; L. A. EWELL; M. JOSIC; S. AHMADI; S. LUM; R. BRAR; S. LEUTGEB; J. K. LEUTGEB. *UC San Diego, Univ. of Amsterdam, Univ. of California-San Diego.*

8:00 KKK48 **578.09** 4-Hz and beta oscillations coordinate dentate network activity in a dentate-dependent working memory task. S. AHMADI*; V. C. PIATTI; L. A. EWELL; S. LEUTGEB; J. K. LEUTGEB. *UCSD, Univ. of Amsterdam, UCSD.*

9:00 KKK49 **578.10** Role of astrocytes connexin in the regulation of sleep oscillatory pattern. M. M. LACROIX*; L. ROUX; C. GIAUME; K. BENCHENANE. *CNRS UMR7637, New-York Univ., Collège de France.*

10:00 KKK50 **578.11** Hemispheric asymmetry of hippocampal memory processes in mice. O. SHIPTON*; J. APERGIS-SCHOUTE; D. BANNERMAN; K. DEISSEROTH; O. PAULSEN; M. KOHL. *Univ. of Oxford, Univ. of Cambridge, Univ. of Oxford, Stanford Univ.*

11:00 KKK51 **578.12** A cross-species approach to investigating memory for sequences of events. A. M. MORRIS*; T. A. ALLEN; A. T. MATTFELD; C. E. L. STARK; N. J. FORTIN. *Univ. of California Irvine, Univ. of California Irvine, MIT.*

8:00 KKK52 **578.13** Maternal exercise during pregnancy improves object recognition memory in adult male offspring. A. M. ROBINSON*; D. J. BUCCI. *Dartmouth Col.*

9:00 KKK53 **578.14** Inception of a false memory in the hippocampus. S. RAMIREZ*; X. LIU; P. LIN; J. SUH; M. PIGNATELLI; R. L. REDONDO; T. J. RYAN; S. TONEGAWA. *MIT, MIT.*

10:00 KKK54 **578.15** Burst phase offsets among hippocampal theta cells do not vary with position or movement trajectory: Implications for spatial coding by oscillatory interference. R. M. DE GUZMAN*; L. R. HALLADAY; H. T. BLAIR. *UCLA.*

11:00 KKK55 **578.16** Hippocampal subregional firing correlates for parametric alterations in distal cue-configuration in a goal-directed task. I. LEE*, PhD; S. PARK. *Seoul Natl. Univ.*

8:00 KKK56 **578.17** Towards a fully flexible system for studying hybrid networks with controlled topology. L. DEMKO*; V. HOOP; A. POPERT; H. DERMUTZ; J. VOROS. *Lab. of Biosensors and Bioelectronics, ETH Zurich.*

9:00 KKK57 **578.18** Spatial olfactory learning modifies place field formation in the hippocampus. S. ZHANG; D. MANAHAN-VAUGHAN*. *Ruhr Univ. Bochum, Med. Faculty,.*

10:00 KKK58 **578.19** Mechanisms for transitive inference in monkeys (Macaca mulatta). R. R. HAMPTON*; R. P. GAZES. *Emory Univ.*

11:00 KKK59 **578.20** Interneurons robustly and consistently increase their firing rates during the minutes preceding behavioral seizures in a chronic model of temporal lobe epilepsy. L. LIANG*; L. A. EWELL; C. ARMSTRONG; I. SOLTESZ; S. LEUTGEB; J. K. LEUTGEB. *UC San Diego, UC Irvine, UC San Diego.*

8:00 KKK60 **578.21** Pre-plaque amyloid pathology causes robust changes in hippocampal function, which does not further deteriorate upon plaque formation. A. L. BLACKSHEAR*; J. DAVIS; M. B. MARTINEZ; J. K. LEUTGEB; S. LEUTGEB. *UCSD, UCSD.*

9:00 KKK61 **578.22** Hippocampal subregions Ca^2 and CA^3 relay complementary information about temporal and spatial context to CA1. E. A. MANKIN*; F. T. SPARKS; G. W. DIEHL; S. LEUTGEB; J. K. LEUTGEB. *UC San Diego, UC San Diego, Univ. of Lethbridge, UC San Diego.*

10:00 KKK62 **578.23** A cortico-hippocampal learning rule enhances information flow through the hippocampal circuit by shaping local inhibitory microcircuit activity. J. BASU*; S. A. SIEGELBAUM. *Columbia Univ., HHMI/Columbia Univ.*

11:00 KKK63 **578.24** Long-range projections of medial prefrontal cortex and hippocampus revealed through whole tissue imaging. A. J. DIMAURO*; W. A. LIBERTI, III; R. J. ROBINSON, II; D. J. SHEEHAN; J. M. GAUTHIER; H. EICHENBAUM. *Boston Univ., Boston Univ., Boston Univ.*

8:00 KKK64 **578.25** Single-trial analysis of place field properties in control and CA1 NMDAR1-KO mice. H. O. CABRAL*; C. FOUQUET; M. VINCK; L. RONDI-REIG; C. M. A. PENNARTZ; F. P. BATTAGLIA. *IMEC Belgium, Univ. van Amsterdam, Res. Priority Program "Brain and Cognition", CNRS–University Pierre and Marie Curie P6, RadboudUniversiteit Nijmegen, IMEC, VIB.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 KKK65 **578.26** ▲ Parallels between individual variability in hippocampal NR2a expression and Morris Water Maze learning. J. CHO; L. SMITH; J. FLINN; D. BURDETT; R. F. ACKERMANN*; S. E. BACHUS. *George Mason Univ., McLean Hospital, Harvard Univ., George Mason Univ., Univ. Alabama Sch. Med.*

10:00 KKK66 **578.27** Within and between area replay in Hippocampus, Barrel Cortex and Perirhinal cortex. J. J. BOS*; M. VINCK; A. B. VAN MOURIK-DONGA; C. M. A. PENNARTZ. *Univ. of Amsterdam.*

11:00 KKK67 **578.28** Neural representations of sequences of events in the hippocampus parallel behavioral performance. T. A. ALLEN*; D. M. SALZ; S. A. MCKENZIE; M. E. HASSELMO; H. B. EICHENBAUM; N. J. FORTIN. *Univ. of California Irvine, Univ. of California Irvine, Boston Univ.*

8:00 KKK68 **578.29** The medial entorhinal cortex is required for hippocampal phase precession. M. I. SCHLESIGER*; C. C. CANNOVA; E. A. MANKIN; B. B. BOUBLIL; J. B. HALES; J. K. LEUTGEB; C. LEIBOLD; S. LEUTGEB. *Univ. of California, LMU, Univ. of California, LMU, Univ. of California.*

9:00 KKK69 **578.30** The role of the hippocampus and the avian "prefrontal cortex" for extinction learning and renewal of appetitive conditioning. D. LENGERSDORF*; M. STÜTTGEN; O. GÜNTÜRKÜN. *Ruhr-Universität Bochum.*

POSTER

579. Animal Cognition: Learning and Memory - Aging I

Theme F: Cognition and Behavior

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

8:00 KKK70 **579.01** Resveratrol and forced exercise prove beneficial against both neurological and metabolic deficits associated with ageing. R. C. HUSSEY*; S. M. O'MARA. *Trinity Col. Inst. of Neurosci.*

9:00 LLL1 **579.02** Age-associated changes in cognition and inhibitory interneuron network integrity in diversity outbred mice. M. KOH*; A. SPIEGEL; M. GALLAGHER. *Johns Hopkins Univ.*

10:00 LLL2 **579.03** Voluntary exercise modifies interneuron protein expression in the dentate hilus. A. M. SPIEGEL*; S. SALAS-VEGA; A. M. STRANAHAN; M. GALLAGHER. *Johns Hopkins Univ., Med. Col. of Georgia.*

11:00 LLL3 **579.04** Do anabolic steroids impact cognition? An evaluation of androstenedione's effects on cognition in young male rodents. B. W. CAMP*; R. HIROI; L. TORRES; L. KARBER; H. A. BIMONTE-NELSON. *Arizona State Univ., Arizona Alzheimer's Consortium.*

8:00 LLL4 **579.05** Human navigation on a radial-arm maze: Strategy choice and performance outcome. H. A. BIMONTE-NELSON*; I. GRUNFELD; S. MENNENGA; B. CAMP; G. BREWER; L. BAXTER; M. MCBEATH. *Arizona State Univ., Barrow Neurolog. Inst.*

9:00 LLL5 **579.06** The impact of hormone therapy estrogens on memory, depressive-like, and anxiety-like behaviors: A comparison of conjugated equine estrogens and 17β-estradiol. S. V. KOEBELE*; R. HIROI; S. E. MENNENGA; L. T. HEWITT; P. K. MENDOZA; C. N. LAVERY; G. WEYRICH; L. F. KARBER; H. A. BIMONTE-NELSON. *Arizona State Univ.*

10:00 LLL6 **579.07** Estradiol only improves performance when working memory load is very high: Alternative interpretation of poor performance on an easy task. S. E. MENNENGA*; J. E. GERSON; S. V. KOEBELE; L. T. HEWITT; A. S. JORDAN; A. A. MOUSA; H. A. BIMONTE-NELSON. *Arizona State Univ., Univ. of Texas Med. Br.*

11:00 LLL7 **579.08** Curcumin supplementation improves certain aspects of cognition and alleviates inflammation, independent of adiposity. M. SARKER*; M. J. FORSTER; S. F. FRANKS; N. SUMIEN; F. FILIPETTO. *UNT Hlth. Sci. Ctr.*

8:00 LLL8 **579.09** ● The effects of HMB on water maze performance in middle-aged and aged male and female rats. D. G. KOUGIAS*; W. A. KOSS; L. K. SHERRILL; E. R. HANKOSKY; L. R. HAMMERSLAG; J. M. GULLEY; J. M. JURASKA. *Univ. of Illinois At Urbana-Champaign.*

9:00 LLL9 **579.10** Effects of ghrelin knock-out and age on spatial learning, neurogenesis, and spine density in the dentate gryus of rats. S. P. CAHILL*; T. HATCHARD; A. ABIZAID; M. R. HOLAHAN. *Carleton Univ., Univ. of Ottawa.*

10:00 LLL10 **579.11** Aging reduces basal neuronal activation as measured by immediate early gene expression within medial prefrontal cortex. M. SEHGAL*; J. A. DETERT; T. S. BULA; J. R. MOYER, Jr. *Univ. of Wisconsin-Milwaukee, Weill Cornell Med. Col., Univ. of Wisconsin-Milwaukee.*

11:00 LLL11 **579.12** Early detection of region-specific changes in immediate early gene expression within hippocampus during normal aging. J. R. MOYER, JR.*; M. SEHGAL; J. A. DETERT; T. S. BULA. *Univ. of Wisconsin-Milwaukee, Univ. of Wisconsin-Milwaukee, Weill Cornell Med. Col.*

8:00 LLL12 **579.13** The molecular and cellular mechanisms behind environmental enrichment. R. HULLINGER*; K. O'RIORDAN; C. BURGER. *Univ. of Wisconsin- Madison, Univ. of Wisconsin- Madison.*

9:00 LLL13 **579.14** ● Identification of cognitive deficits and brain pathology in a mouse model of normal aging. M. WEBER*; T. WU; S. L. DOMINGUEZ; H. LIN; H. NGU; K. SCEARCE-LEVIE. *Genentech Inc., Genentech Inc.*

10:00 LLL14 **579.15** Study of the molecular mechanisms underlying cognitive dysfunction caused by prenatal hypoxia in rats. I. A. ZHURAVIN*; N. M. DUBROVSKAYA; S. A. PLESNEVA; A. J. TURNER; N. N. NALIVAEVA. *I.M.Sechenov Inst. of Evolutionary Physiol. and Biochem. RAS, Univ. of Leeds.*

11:00 LLL15 **579.16** NMDA receptor subcellular location and memory functions are altered in the APP/PS1 mouse model of Alzheimer's disease. S. HADZIBEGOVIC; J. PORęBSKA; Y. CHO; N. MACREZ; B. BONTEMPI; O. NICOLE*. *CNRS, Univ. Bordeaux, UMR-CNRS5293, Inst. of Computer Sci. and Nalecz Inst. of Biocybernetics, UMR-CNRS 5287, Univ. de Bordeaux.*

8:00 LLL16 **579.17** Protective effects of P2X7 receptor deletion on aging-related cognitive status. W. CHO*; S. LEE; J. PARK; J. LEE; J. HAN. *Konkuk Univ., Korea Res. Inst. of Biosci. and Biotech.*

9:00 LLL17 **579.18** The sigma 1 receptor selective ligand ls-1-137 attenuates scopolamine induced impairment in learning and memory. M. MALIK*; C. BARAJAS; N. SUMIEN; R. MACH; R. LUEDTKE. *Univ. of North Texas Hlth. Sc Ctr., Washington Univ. Sch. of Med.*

10:00 LLL18 **579.19** Selective deterioration of excitatory synapses in the aged dentate gyrus: Comparisons among hippocampal glutamatergic, GABAergic and cholinergic synapses. J. A. MCQUAIL*; J. P. HIBBLE; J. L. BIZON; B. D. SHUGOLL; M. M. NICOLLE. *Univ. of Florida, Wake Forest Univ., Wake Forest Univ., Wake Forest Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

580. Animal Learning and Memory: Pharmacology I

Theme F: Cognition and Behavior

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

8:00 LLL19 **580.01** The chronic treatment with L-DOPA impairs spatial working memory and increasing the nitrosative stress in the striatum and prefrontal cortex in rats with a 6-OHDA lesion. G. RAMÍREZ GARCÍA*; V. PALAFOX-SÁNCHEZ; I. D. LIMÓN PEREZ DE LEÓN. *Lab. De Neurofarmacología.*

9:00 LLL20 **580.02** ▲ The neurofibromin directly interacts with the 5-HT6 serotonin receptor and regulates its function. W. DERAREDJ*; L. COBRET; F. GODIN; S. CHAUMONT; P. MARIN; H. BÉNÉDETTI; S. MORISSET. *Ctr. de Biophysique Moléculaire, CNRS, UPR 4301, Inst. de Génomique Fonctionnelle, CNRS UMR 5203.*

10:00 LLL21 **580.03** ● Effect of consumption of T2 dietary supplement in the short and long term memory and spine dentritic formation in mice. M. I. TORRES-FLORES*; C. FÉRNANDEZ-AGUILAR; S. GORDILLO-HIGAREDA; A. RAMÍREZ-RAMOS; E. PORTILLO-NAVARRO; M. RAMÍREZ-FLORES; R. HARO VALENCIA; M. APODACA-ARAGÓN; E. SÁNCHEZ; O. GARCÍA. *UNAM, Palsgaard Industri de Mexico, S. de R.L de CV, UNAM.*

11:00 LLL22 **580.04** Dopaminergic and cholinergic mediation of within-session concurrent discrimination learning. A. WYLIE; J. SEIDEMAN; D. YU; C. BLACKWELL; M. MISHKIN; J. N. TURCHI*. *NIMH, NIH, NYU, NIMH, NIH.*

8:00 LLL23 **580.05** FAAH inhibition improves memory performance in APP/PS1 transgenic mice. L. E. WISE*; B. C. RIEDEL; A. H. LICHTMAN. *Virginia Commonwealth Univ.*

9:00 LLL24 **580.06** Are pre-training habituation sessions a valid method in the study of learning and memory in rats and mice? R. M. ABUHAMDAH*; P. CHAZOT; S. ABUHAMDAH; A. ENNACEUR. *Durham Univ., Univ. of Jordan, Univ. of Sunderland.*

10:00 LLL25 **580.07** Effects of methamphetamine on allocentric learning and memory in rats. A. GUTIERREZ*; R. M. AMOS-KROOHS; M. T. WILLIAMS; C. V. VORHEES. *Univ. of Cincinnati, Col. of Med., Univ. of Cincinnati, Col. of Med., Cincinnati Children's Res. Fndn.*

11:00 LLL26 **580.08** ● Discovery of Lu AF58801, a novel, selective and brain penetrant positive allosteric modulator of alpha-7 nicotinic acetylcholine receptors: Attenuation of subchronic phencyclidine (PCP)-induced cognitive deficits in rats following oral administration. J. F. BASTLUND*; C. BUNDGAARD; K. DEKERMENDJIAN; R. L. PAPKE; J. P. REDROBE; K. FREDERIKSEN; J. ESKILDSEN. *H. Lundbeck A/S, Univ. of Florida Col. of Med., H. Lundbeck A/S.*

8:00 LLL27 **580.09** ▲ The effect of cocaine on delay discounting in the spontaneously hypertensive rat. M. CLASEN; S. SEQUEIRA; J. J. O'MALLEY; A. SHEMERY; S. MCVAY; D. HOLT; J. DYCHE*. *James Madison Univ., St. Louis Univ.*

9:00 LLL28 **580.10** The role of NMDA receptors in the consolidation of habit memory. K. LEONG*; M. G. PACKARD. *Texas A&M Univ.*

10:00 LLL29 **580.11** ▲ The separate or concurrent effects of methylphenidate and alcohol on acquisition and retention of the Morris Water Maze in adolescent rats. M. CREECH; L. SCOTT; K. LIVESAY; L. BAKNER*. *Linfield Col.*

11:00 LLL30 **580.12** ▲ Effects of intrastriatal naloxone infusion on spatial navigation performance in the rat: Implications for the treatment of obsessive compulsive disorder. J. PISCOPELLO; N. CHABAN; B. D. DEVAN*. *Towson Univ.*

8:00 LLL31 **580.13** Motor impairment and behavior alteration tested in open field in 21 day-old male mice postnatally treated with midazolam. A. MARQUEZ-OROZCO*; I. JIMENEZ-ESTRADA; G. DE LA FUENTE-JUAREZ; S. SANTIAGO-LOPEZ; J. JOYA-VENEGAS; A. FORTANEL. FONSECA; A. FORTANEL.FONSECA; M. MARQUEZ-OROZCO. *Univ. of Mexico (UNAM), CINVESTAV-IPN.*

9:00 LLL32 **580.14** High-energy diet alters intrinsic excitability in young hippocampal CA1 neurons: Gender-dependent responses to insulin. E. UNDERWOOD*; L. T. THOMPSON. *The Univ. of Texas At Dallas.*

10:00 LLL33 **580.15** α7 nicotinic acetylcholine receptor (α7 nAChR) antagonists as potential cognition enhancers. N. P. VAN GOETHEM*; L. WENNOGLE; H. STEINBUSCH; J. PRICKAERTS. *Maastricht Univ., Intra-Cellular Therapies, Inc.*

11:00 LLL34 **580.16** ▲ Prenatal choline supplementation prevents behavioral and neural impairments of adult MK-801 exposure in male rats. C. A. NICKERSON*; A. L. BROWN; M. J. GLENN. *Colby Col., Colby Col.*

8:00 LLL35 **580.17** The effect of donepezil and memantine on impaired spatial memory performances in a non-human primate, the grey mouse lemur. A. RAHMAN; F. PIFFERI; Y. LAMBERTY; E. SCHENKER; M. SPEDDING*; R. BORDET; J. C. RICHARDSON; F. AUJARD. *UMR 7179, CNRS/ MNHN, UCB Pharma s.a., Insitut de Recherches Servier, LES LABORATOIRES SERVIER, Universit´e Lille Nord de France, R &D China, GlaxoSmithKline.*

9:00 LLL36 **580.18** Posttraining peripheral administration or intra-dorsolateral striatum injection of the cannabinoid 1 (CB1) receptor agonist WIN 55, 212-2 impairs the consolidation of habit memory. J. GOODMAN*; M. G. PACKARD. *Texas A&M Univ.*

10:00 LLL37 **580.19** Methylphenidate enhances olfactory discrimination reversal learning in rats. S. E. MAGGIO; J. GALIZIO*. *Univ. North Carolina, Univ. North Carolina.*

11:00 LLL38 **580.20** ● Interactions of methamphetamine and HIV gp120 expression on discrimination learning in the mouse. J. P. KESBY*; A. MARKOU; S. SEMENOVA. *Univ. of California San Diego.*

8:00 LLL39 **580.21** The benzodiazepine antagonist, flumazenil, mitigates the post-anesthesia effects of the inhaled anesthetic, isoflurane. J. A. FIDLER; B. L. RAYMOND; S. C. BURKE; S. R. BABER; C. KARLAPALEM; P. S. GARCIA*. *VA Med. Ctr., Emory Univ. Sch. of Med., Univ. of California San Francisco.*

POSTER

581. Basal Forebrain: Neurophysiology and Function

Theme F: Cognition and Behavior

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

8:00 LLL40 **581.01** Functional coupling between non-cholinergic basal forebrain neurons and midbrain dopaminergic neurons. I. AVILA*; S. LIN. *Natl. Inst. On Aging, NIH.*

9:00 LLL41 **581.02** Motivational salience signal in the basal forebrain tracks behavioral performance during learning. H. MANZUR*; S. LIN. *NIH, Natl. Inst. of Hlth. - Natl. Inst. on Aging.*

10:00 LLL42 **581.03** The topographic organization of auditory cortical projecting basal forebrain cells. C. M. CHAVEZ*; L. ZABORSZKY. *Rutgers, The State Univ. of New Jersey.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 LLL43 **581.04** Cholinergic neurons excite cortically-projecting basal forebrain GABAergic/parvalbumin neurons. C. YANG*; J. T. MCKENNA; R. E. BROWN. *VA Boston Healthcare Syst. and Harvard Med. Sch.*

8:00 LLL44 **581.05** ● Visualization of basal forebrain cholinergic clusters in Cartesian coordinate system and investigation of their functional significance. P. GOMBKÖTO*; L. ZABORSZKY. *Rutgers Univ.*

9:00 LLL45 **581.06** Neuromodulatory plasticity governs cortical plasticity. A. MARTINS*; R. C. FROEMKE. *NYU Sch. of Med., Programme in Exptl. Biol. and Biomedicine, Ctr. for Neurosciences and Cell Biology, Univ. of Coimbra, Ctr. for Neural Sciences, NYU.*

10:00 LLL46 **581.07** Population coding of stimulus and reward in rat basal forebrain. E. E. THOMSON*; K. SYLVESTER; Â. TAKIGAMI; J. LOU; M. NICOLELIS. *Duke Univ., Duke, USC.*

11:00 LLL47 **581.08** Basal forebrain neuronal activity maps the sequences of locomotor actions associated with fluid traversal of complex paths through an environment. S. KOLBU*; A. A. CHIBA; D. A. NITZ. *UCSD.*

8:00 LLL48 **581.09** Cell assemblies of the basal forebrain exhibit beta-frequency dynamics. D. TINGLEY*; A. ALEXANDER; S. KOLBU; A. CHIBA; D. NITZ. *UCSD.*

9:00 LLL49 **581.10** Visuo-motor versus somato-motor integration in the rat basal forebrain. M. R. GIELOW*; L. K. QUINN; J. M. CONNER; A. A. CHIBA; K. D. ALLOWAY; L. ZABORSZKY. *Rutgers Univ., UCSD, UCSD, Penn State Univ., Rutgers Univ.*

10:00 LLL50 **581.11** Better late than never - the role of basal forebrain inhibition in successful and failed stopping in the stop signal task. J. D. MAYSE*; G. NELSON; I. AVILA; M. GALLAGHER; S. LIN. *Johns Hopkins Univ., Natl. Inst. on Aging.*

POSTER

582. Neural Circuits for Regulating Stress and Emotion

Theme F: Cognition and Behavior

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

8:00 LLL51 **582.01** Ketamine prevents neurochemical and behavioral consequence of uncontrollable stress. K. H. KUBALA*; J. P. CHRISTIANSON; J. AMAT; D. C. COOPER; L. R. WATKINS; S. F. MAIER. *Univ. of Colorado.*

9:00 LLL52 **582.02** Controllable versus uncontrollable aversive stimuli differentially trigger ERK signaling in the dorsal striatum. R. A. DAUT*; J. P. CHRISTIANSON; J. G. N. FLYER; L. R. WATKINS; S. F. MAIER. *Univ. of Colorado, Univ. of Colorado.*

10:00 LLL53 **582.03** The long-lasting protective effects of controllable stress require ERK in the medial prefrontal cortex. J. G. N. FLYER; J. P. CHRISTIANSON*; L. R. WATKINS; S. F. MAIER. *Univ. of Colorado, Univ. of Colorado.*

11:00 LLL54 **582.04** The effect of hydrocortisone on emotion regulation neurocircuis in patients with PTSD. G. OKADA*; S. T. MA; S. HO; S. TAYLOR; J. L. ABELSON; I. LIBERZON. *Univ. of Michigan.*

8:00 LLL55 **582.05** Cortisol modulation on emotion regulation neurocircuits. S. T. MA*; G. OKADA; S. HO; S. TAYLOR; J. L. ABELSON; I. LIBERZON. *Univ. of Michigan, Hiroshima Univ., Univ. of Michigan.*

9:00 LLL56 **582.06** Opposing roles of corticotropin-releasing factor and neuropeptide Y within the dorsolateral bed nucleus of the stria terminalis in the negative affective component of pain in rats. S. DEYAMA*; S. IDE; A. OHNO; R. TAMANO; K. KOSEKI; T. NAKA; C. MARUYAMA; M. YOSHIOKA; M. MINAMI. *Grad Sch. Pharm Sci., Hokkaido Univ., Grad Sch. Med., Hokkaido Univ.*

10:00 LLL57 **582.07** Opposing effects of corticotropin-releasing factor and neuropeptide Y on neuronal excitability in the dorsolateral bed nucleus of the stria terminalis. M. MINAMI*; T. HARA; S. IDE; K. KANEDA. *Hokkaido Univ.*

11:00 LLL58 **582.08** Postnatal refinement of OFC (area 11) projections to the striatum. B. K. FAHRENTHOLD*; S. N. HABER. *Univ. of Rochester, Univ. of Rochester.*

8:00 LLL59 **582.09** ● The cingulum bundle contains five distinct segments: Implications for default mode network activity and psychiatric disorders. S. R. HEILBRONNER*; S. N. HABER. *Univ. of Rochester.*

9:00 LLL60 **582.10** ▲ Conditioning taste aversion after a chronic stress exposure in rats. A. RUIZ GARCIA*; P. TORRES-CARRILLO; I. ROSEMBERG-GARCIA; D. PAZ-TREJO; H. SANCHEZ-CASTILLO. *UNAM, UNAM.*

10:00 LLL61 **582.11** Investigation of the neural correlates of emotion regulation with and without explicit instruction to 'reappraise'. D. Z. BOLLING*; E. KRAPOHL; N. PITSKEL; K. PELPHREY. *Yale Child Study Ctr.*

11:00 LLL62 **582.12** Low-frequency rTMS over the ventrolateral prefrontal cortex modulates reappraisal-based down-regulation of negative affect. J. U. KIM*; S. R. LEVINE; L. R. BLAIR; D. H. ZALD. *Vanderbilt Univ., Vanderbilt Univ.*

8:00 LLL63 **582.13** Pharmacological study on the autonomic modulation of the pupillary response during emotional processing. S. I. BRUGUÉS SELEME*; E. BRUNETTI; M. HERRERA-MARSCHITZ; P. E. MALDONADO. *Univ. De Chile.*

POSTER

583. Brain Mechanisms Mediating Interactions between Rewards and Drugs

Theme F: Cognition and Behavior

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

8:00 LLL64 **583.01** Incubation of cocaine-induced habits in adolescence. L. M. DEPOY; S. L. GOURLEY*. *Emory Univ.*

9:00 LLL65 **583.02** Forced sedentary home cage conditions decreases cocaine-induced locomotor stimulation in rats. M. J. WILL*; M. MCCABE; K. PARKER; H. JOHNS; M. ROBERTS; F. BOOTH. *Univ. Missouri-Columbia, Univ. of Missouri, Univ. of Missouri.*

10:00 MMM1 **583.03** Evidence of cross-sensitization between stress and alcohol in rats: Alcohol intake and locomotor behavior in rats exposed to maternal separation or social defeat stress. B. E. CALDWELL*; E. JACOBS-BRICHFORD. *Ithaca Col.*

11:00 MMM2 **583.04** The involvement of spinal ascending pathways in acupuncture inhibition of cocaine-induced locomotor activity. H. KIM*; S. KIM; S. JANG; M. YEO; C. IM; B. LEE; C. YANG. *Daegu Haany Univ.*

8:00 MMM3 **583.05** Deep brain stimulation of the ventral striatum impairs extinction of morphine-induced conditioned place preference. F. J. MARTINEZ*; J. RODRÍGUEZ-ROMAGUERA; F. H. DO MONTE; O. A. MUÑIZ-SEDA; G. J. QUIRK; J. L. BARRETO-ESTRADA. *Univ. of Puerto Rico, Med. Sci. Campus, Univ. of Puerto Rico, Med. Sci. Campus.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

9:00 MMM4 **583.06** Propofol pretreatment induced place preference and self-administration of the NMDA receptor antagonist-benzodiazepine combination, Zoletil®. I. I. DELA PEÑA*; J. DE LA PEÑA; A. MUHAMMAD; K. JUNG; H. KIM; C. SHIN; J. CHEONG. *Uimyung Res. Inst. For Neuroscience, Sahmyook Univ., Ctr. for Geriatric Neuroscience, Res. Inst. of Biomed. Sci. and Technology, Konkuk Univ.*

10:00 MMM5 **583.07** Functional role of the N-terminal domain of deltaFosB in responses to stress and drugs of abuse. Y. N. OHNISHI*; Y. H. OHNISHI; V. VIALOU; E. MOUZON; Q. LAPLANT; A. NISHI; E. J. NESTLER. *Kurume Univ. Sch. of Med., Friedman Brain Institute, Icahn Sch. of Med. at Mount Sinai.*

11:00 MMM6 **583.08** Signal processing in neuronal circuits mediating the reorientation from cocaine to social interaction. J. M. PRAST*; K. K. KUMMER; G. ZERNIG; A. SARIA. *Med. Univ. Innsbruck - Exp. Psychiatry Unit.*

8:00 MMM7 **583.09** Altered reward expectancy in individuals with prior methamphetamine dependence. A. BISCHOFF-GRETHE*; C. G. CONNOLLY; S. J. JORDAN; G. G. BROWN; M. P. PAULUS; R. K. HEATON; S. P. WOODS; I. GRANT; . THE TMARC GROUP. *UCSD.*

9:00 MMM8 **583.10** Firing of lateral preoptic area during cocaine self-administration. D. J. BARKER*; B. S. STRIANO; D. H. ROOT; A. P. PAWLAK; A. T. FABBRICATORE; M. O. WEST. *Rutgers Univ.*

10:00 MMM9 **583.11** Neurobiological consequences of concurrent chronic stress and nicotine exposure in adult rats previously treated with nicotine during adolescence. L. F. ALCANTARA*; B. L. WARREN; E. M. PARISE; C. A. BOLAÑOS-GUZMÁN. *Florida State Univ.*

11:00 MMM10 **583.12** Dissociating the psychoactive effects of distinct marijuana compounds in the mesocorticolimbic circuitry. J. ZUNDER*; S. R. LAVIOLETTE. *The Univ. of Western Ontario.*

POSTER

584. Vocal Communication: Non-Avian

Theme F: Cognition and Behavior

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

8:00 MMM11 **584.01** Localization of ultrasonic vocalizations emitted by both male and female mouse models of Fragile X while socially interacting. J. P. NEUNUEBEL*; A. L. TAYLOR; B. J. ARTHUR; S. E. R. EGNOR. *Howard Hughes Med. Inst. - Janelia Farm Res. Campus.*

9:00 MMM12 **584.02** Female rejection and male vocal behavior may play an intimate role in the mating behavior of the house mouse. K. SEAGRAVES*; J. NEUNUEBEL; R. S. E. EGNOR. *HHMI's Janelia Farm.*

10:00 MMM13 **584.03** The Reelin-signaling pathway influences calling behavior: A cross-species approach. E. FRALEY*; S. A. WHITE; P. E. PHELPS. *UCLA.*

11:00 MMM14 **584.04** Assessing temporal processing in treefrogs using auditory evoked potentials. K. M. SCHRODE*; M. A. BEE. *Univ. of Minnesota, Univ. of Minnesota.*

8:00 MMM15 **584.05** The expression of foxp2 in the brain of adult green tree frogs. D. SINKIEWICZ*; W. WILCZYNSKI. *Georgia State Univ.*

9:00 MMM16 **584.06** Concatenation of vocal gestures in a rodent model. T. RIEDE*. *Univ. of Utah, Dept. Biol.*

10:00 MMM17 **584.07** Distinct neural control of vocal phases in frog calls. A. YAMAGUCHI*; J. C. BARNES. *Univ. of Utah.*

11:00 MMM18 **584.08** Intrasexual analysis of catecholaminergic cell groups and tyrosine hydroxylase fiber innervation of the vocal motor system in a teleost with alternative reproductive tactics. Z. N. GHAHRAMANI*; M. TIMOTHY; S. KIM; G. KAUR; P. M. FORLANO. *CUNY Brooklyn Col., CUNY Grad. Ctr., CUNY Brooklyn Col.*

8:00 MMM19 **584.09** Estrogen-dependent changes in saccular hair cell density in a vocal teleost fish. R. A. MOHR*; A. B. COFFIN; M. A. MIDDLETON; P. SWANSON; J. A. SISNEROS. *Univ. of Washington, Washington State Univ., Washington State Univ., Natl. Oceanic and Atmospheric Admin., Univ. of Washington, Washington State Univ., Univ. of Washington.*

9:00 MMM20 **584.10** Immunohistochemical localization of GABA and serotonin provides an emerging picture of neuromodulator interactivity in a vocal teleost. M. TIMOTHY*; P. M. FORLANO. *Brooklyn College, City Univ. of New York (CUNY).*

10:00 MMM21 **584.11** Inferred organization of a dinosaur brain. C. CHEN*; K. WADA; M. V. RIVAS; E. JARVIS; D. SOARES; D. FRIEDEBERG; T. GLENN; E. D. JARVIS. *Duke Univ., Hokkaido Univ., Durham Veteran's Affairs Med. Ctr., Duke Univ., Univ. of Maryland, Univ. of Georgia.*

11:00 MMM22 **584.12** Defining a new terminology for non-avian reptile brains. D. FRIEDEBERG*; C. CHEN; E. JARVIS; M. LEAL. *Duke.*

8:00 MMM23 **584.13** Reconceptualizing the auditory dorsal stream within a unified neurobiological model of audition and language. I. BORNKESSEL-SCHLESEWSKY*; J. P. RAUSCHECKER; M. SCHLESEWSKY; S. L. SMALL. *Univ. of Marburg, Georgetown Univ., Johannes Gutenberg-University, Univ. of California Irvine.*

9:00 MMM24 **584.14** Generation of unique vocalizations via laryngeal filtering and premotor patterning. C. L. BARKAN*; D. B. KELLEY. *Columbia Univ., Columbia Univ.*

10:00 MMM25 **584.15** Anterior lateral line nerve encoding to tones and play back vocalisations in free swimming oyster toadfish, Opsanus tau. C. A. RADFORD; A. F. MENSINGER*. *Univ. of Aukland, Marine Biol. Lab., Univ. of Minnesota Duluth.*

11:00 MMM26 **584.16** Evidence of voluntary vocal control by the common marmosets (Callithrix jacchus). L. ZHAO*; S. ROY; X. WANG. *The Johns Hopkins Univ. Sch. of Med.*

POSTER

585. New Tools for Studying Channels, Receptors and Single Neurons

Theme G: Novel Methods and Technology Development

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

8:00 MMM27 **585.01** Characterizing human ion channels in induced pluripotent stem cell derived neurons. S. STOELZLE*; A. HAYTHORNTHWAITE. *Nanion Technologies.*

9:00 MMM28 **585.02** Development of an impedance measurement system to detect temperature changes in single ionic channels using Patch-Clamp technique. J. AGUILAR*; L. ISLAS; D. ELIAS-VIÑAS. *CINVESTAV-IPN, Univ. Nacional Autónoma de México, Facultad de Medicina.*

10:00 MMM29 **585.03** Transforming the TRP channel drug discovery using medium throughput electrophysiological assays. J. CHAMBARD; E. TAGAT; P. BOUDEAU; M. PARTISETI*. *Sanofi R&D.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 MMM30 **585.04** ● A method for patch-clamp recordings of fast-acting ion channels in rat dorsal root ganglion cells. J. SVENSSON DALÉN*; A. KARLSSON; M. KARLSSON; S. ASPENGREN; P. KARILA. *Cellectricon AB.*

8:00 MMM31 **585.05** Achieving Quality and Throughput in human nAChR α7 Screening: A Cross-platform comparison study using a recombinant cell model. H. WEI*; C. W. BENJAMIN; D. H. WERTH. *EMD Millipore Corporation, Discovery & Develop. Solutions.*

9:00 MMM32 **585.06** Lab-on-a-chip microfluidic device for kinetically resolved electrochemical detection of adrenal catecholamine secretion. K. P. CURRIE*; I. GES; R. L. BRINDLEY; F. J. BAUDENBACHER. *Vanderbilt Univ. Sch. of Med., Vanderbilt Univ.*

10:00 MMM33 **585.07** Enhancement of neurite outgrowth and neuronal differentiation by using β-NGF conjugated to maghemite nanoparticles. M. MARCUS; H. SKAAT; S. MARGEL; O. SHEFI*. *Fac. of Engin. and Inst. of Nanotechnologies and Advanced Materials, Bar Ilan Univ.*

11:00 MMM34 **585.08** Use of stem cell-derived human neurons to screen a chemical library for potential neurotoxicity. M. ROACH*; R. MALAVARCA; K. GOMES. *PhoenixSongs Biologicals, Inc., PhoenixSongs Biologicals.*

8:00 MMM35 **585.09** Establishment of a single cell assay to screen individual cell types for efficacy of putative small molecule drugs for lowering Aß. M. LIAO*; J. LOVE; T. YOUNG-PEARSE. *Harvard Med. School/Brigham and Women'S Hosp., MIT.*

9:00 MMM36 **585.10** Characterization of human fetal hippocampus-derived neural stem/progenitor cells and its application to drug discovery. K. FUKUSHIMA*; Y. IMAIZUMI; Y. TABATA; N. KOHMURA; K. YAMAZAKI; M. SUGAWARA; K. SAWADA; M. ITO. *Eisai Co., Ltd.*

10:00 MMM37 **585.11** Fast-scan cyclic voltammetric measurements of tonic and phasic dopaminergic neurotransmission. C. W. ATCHERLEY; K. M. WOOD; E. B. MONROE; N. D. LAUDE; K. L. PARENT; P. HASHEMI; M. L. HEIEN*. *Univ. of Arizona, Wayne State Univ.*

11:00 MMM38 **585.12** Biomechanical issues in autonomous positioning of microelectrodes in brain tissue. S. ANAND*; S. SAMPATH KUMAR; J. MUTHUSWAMY. *Arizona State Univ.*

8:00 MMM39 **585.13** ● Two-photon targeted robotic patch-clamp electrophysiological recording *in vivo.* L. A. ANNECCHINO; A. MORRIS; O. AGABI; P. CHADDERTON; S. R. SCHULTZ*. *Imperial Col.*

9:00 MMM40 **585.14** Optimization of injection protocol for *in vivo* blind single-neuron electroporation for labeling. K. OYAMA*; Y. TATEYAMA; S. OHARA; S. SATO; F. KARUBE; F. FUJIYAMA; Y. ISOMURA; H. MUSHIAKE; T. IIJIMA; K. TSUTSUI. *Grad. Schl. of Med., Tohoku Univ., Grad. Schl. of Lifesci., Tohoku Univ., Grad. Schl. of Brain Sci., Doshisha Univ., Brain Sci. Inst.*

10:00 MMM41 **585.15** Sensing exocytosis using an electrochemical glutamate sensor at the calyx of Held. A. KISNER*; S. CLARKE; K. G. PARADISO. *Rutgers Univ., Rutgers Univ.*

11:00 MMM42 **585.16** A novel sealant for FSCV electrodes that is cheap, fast, easy, and reliable. E. RAMSSON*. *Grand Valley State Univ.*

8:00 MMM43 **585.17** *In vivo* use of transistor for local electrical recording and glucose sensing. T. DOUBLET*; E. ISMAILOVA; L. WELCH; P. P. QUILICHINI; A. GHESTEM; T. HERVE; C. K. OBER; G. G. MALLIARAS; C. BERNARD. *INSERM U 1106, Ecole Nationale Supérieure des Mines, CMP-EMSE, MOC, microvitae, Ctr. Microelectronique de Provence, Dept. of Materials Sci. and Engineering, Cornell Univ.*

9:00 MMM44 **585.18** Experimental procedure for electrophysiological investigation of nervous conduction in murine spinal cord *in vivo.* P. DIBAJ*; H. STEFFENS; K. NAVE; E. D. SCHOMBURG. *Max-planck-Institute For Exptl. Med., Max-Planck-Institute for biophysical chemistry, Max-Planck-Institute for Exptl. Med., Max-Planck-Institute for Exptl. Med.*

10:00 MMM45 **585.19** Open-ended MEMS probe for single unit recording. S. OH*; J. CHO. *KIST.*

POSTER

586. New Tools for Studying Neural Networks

Theme G: Novel Methods and Technology Development

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

8:00 MMM46 **586.01** Pattern and guide - getting control over a developing neuron network. H. DERMUTZ*; R. GRÜTER; A. TRUONG; L. DEMKO; T. ZAMBELLI; J. VÖRÖS. *ETH Zurich.*

9:00 NNN1 **586.02** Neurodevelopment and synaptic communication in topographically connected small neuronal networks. M. B. MARTENS*; V. CHOKKALINGAM; N. NADIF KASRI; D. SCHUBERT; W. T. S. HUCK; P. H. E. TIESINGA. *Donders Inst., Inst. for Molecules and Materials, Donders Inst. for Brain, Cognition and Behaviour, Donders Inst. for Brain, Cognition and Behaviour.*

10:00 NNN2 **586.03** *In vivo* 3D measurement of neuronal network activity during visual stimulation. K. SPITZER*; G. SZALAY; G. KATONA; P. MAÁK; M. VERESS; A. KASZÁS; L. SULCZ-JUDÁK; B. CHIOVINI; D. PÁLFI; B. RÓZSA. *IEM-HAS, IEM-HAS, Budapest Univ. of Technol. and Econ., Pázmány Péter Catholic University,The Fac. of Information Technol.*

11:00 NNN3 **586.04** Development of a functional assay for investigating human neural network plasticity *in vitro* toward the integration with a "body-on-a-chip" device. B. J. BERRY*; M. T. SCHNEPPER; N. AKANDA; X. GUO; J. J. HICKMAN. *Nanoscience Technol. Ctr.*

8:00 NNN4 **586.05** Oxygen polarography and electrophysiology in the default-mode and dorsal-attention networks during rest and stimulation: Bridging BOLD fMRI and electrophysiology. W. J. BENTLEY*; J. LI; A. SNYDER; M. RAICHLE; L. SNYDER. *Washington Univ., Washington Univ.*

9:00 NNN5 **586.06** Precise control of neural network structural connectivity in neural cultures. J. R. GAMBLE*; J. A. MAURER; D. L. BARBOUR. *Washington Univ. In St. Louis, Washington Univ. In St. Louis.*

10:00 NNN6 **586.07** High frequency blocking of central pathways in the primate motor system. K. M. FISHER*; N. JILLANI; S. N. BAKER. *Newcastle Univ., Inst. of Primate Res.*

11:00 NNN7 **586.08** An improved M-Sorter for automatic and robust spike sorting. S. WANG*; Y. YUAN; W. MA; J. SI. *Arizona State Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

8:00 NNN8 **586.09** Coupling between spiking activity and beta band spatio-temporal patterns in the macaque PFC. S. SAFAVI; F. PANAGIOTAROPOULOS*; V. KAPOOR; N. LOGOTHETIS; M. BESSERVE. *Max Planck Inst. for Biol. Cybernetics, Max Planck Inst.*

9:00 NNN9 **586.10** Online detection of ripple events and theta waves in the hippocampus *in vivo*. N. GRAVEL*; J. HURTADO; P. FUENTEALBA. *Facultad de Medicina y Ctr. Interdisciplinario de Neurociencia, Pontificia Univ. Católica de Chile, Fundacio Sant Joan de Deu.*

10:00 NNN10 **586.11** The effect of temporal stimulus waveform on the cortical steady-state visual evoked potential (SSVEP). T. J. GAWNE*; T. DICKERHOFF; W. J. KRAFT; K. Q. CHANG. *Univ. Alabama Birmingham, Auburn Univ.*

11:00 NNN11 **586.12** Optimizing EEG/EMG signal/noise ratio. R. KOZMA; W. J. FREEMAN*, III; C. T. LIN; L. LIAO. *Memphis Univ., Univ. California, Natl. Chiao Tung Univ.*

8:00 NNN12 **586.13** A small-volume recirculating bath using a modified airlift pump provides both oxygenation and flow for *in vitro* electrophysiological studies. M. L. MCKINNON*; S. HOCHMAN. *Emory Univ.*

9:00 NNN13 **586.14** ● Toward a self-wired active reconstruction of the hippocampal trisynaptic loop: DG-CA3. B. C. WHEELER*; M. D. BOEHLER; S. LEONDOPULOS; L. PAN; S. ALAGAPAN; T. B. DEMARSE; G. J. BREWER. *Univ. of Florida, Southern Illinois Univ. Sch. of Med.*

10:00 NNN14 **586.15** Accurate and automatic spike classification based on robust EM algorithm. W. MA*; H. MARKLEY; J. SI. *Arizona State Univ.*

11:00 NNN15 **586.16** ● A novel method to assess event-related brain potentials (ERP) in clinical domains using frontal epidermal electronics (EES) sensors. R. GIL-DA-COSTA*; R. FUNG; S. KIM; D. MESA; R. MA; D. KANG; M. BAJEMA; T. D. ALBRIGHT; T. P. COLEMAN. *Salk Inst. For Biol. Studies, UCSD.*

8:00 NNN16 **586.17** The development and characterisation of new software that integrates behavioral tracking with real time oxygen monitoring using a wireless implantable telemetry system in freely moving rats. E. M. GARRY*; C. LLOYD; R. BENNETT; J. KEALY; J. LOWRY; R. GEOGHEGAN. *Blue Box Sensors Limited, ANY-maze, Stoelting Co., Blue Box Sensors, NUI Maynooth.*

9:00 NNN17 **586.18** Quantification of brain complexity to assess the level of consciousness. O. GOSSERIES*; A. CASALI; M. ROSANOVA; M. BOLY; S. SARASSO; K. CASALI; S. CASAROTTO; M. BRUNO; S. LAUREYS; G. TONONI; M. MASSIMINI. *Postle Lab. & Ctr. For Sleep and Consciousness, Dept. of Psychiatry, Coma Sci. Group, Cyclotron Res. Center, Univ. of Liege, Dept. of Biomed. and Clin. Sci. "Luigi Sacco", Univ. of Milan, Ctr. For Sleep and Consciousness, Dept. of Psychiatry, Univ. of Wisconsin, Federal Univ. of Rio Grande do Sul.*

10:00 NNN18 **586.19** Quantifying signal degradation caused by different spike removal techniques: Examples from human micro-electrode recordings. M. BAYRAKTAR*; V. A. COENEN; C. E. ELGER; F. MORMANN. *Univ. of Bonn, Univ. of Bonn.*

11:00 NNN19 **586.20** Eye fixation-related potentials for natural event processing in a computer interaction. F. COURTEMANCHE*; P. LÉGER; S. SÉNÉCAL; A. ORTIZ DE GUINEA; R. TITAH; M. FREDETTE; É. L. LEMOYNE. *HEC Montreal.*

8:00 NNN20 **586.21** Change in functional connectivity by continuous whisker stimulation correlates with decrease in LFP power correlation in the delta band. H. LU*; L. WANG; W. REA; E. A. STEIN; Y. YANG. *Natl. Inst. On Drug Abuse, Natl. Inst. on Drug Abuse.*

9:00 NNN21 **586.22** P300- like event related potentials in rat brain have a latency between 650 and 850 msec. W. D. KLIPEC*; J. BOWDEN; L. PHILLIPS; R. LEWIS; T. GRAY; A. PAJSER. *Drake Univ., Drake Univ.*

10:00 NNN22 **586.23** Validation of a real-world multi-aspect integrated neuroimaging system. W. D. HAIRSTON; T. J. DOTY*; B. KELLIHAN; J. CANADY; K. W. WHITAKER; K. S. OIE; K. MCDOWELL. *Army Res. Lab., DCS Corp.*

11:00 NNN23 **586.24** Portable EEG device and mobile application for mTBI assessment. K. S. HALE*; M. JOHNSTON; B. D. WINSLOW. *Design Interactive, Inc.*

8:00 NNN24 **586.25** ● Enhancements to a non-invasive system for high-throughput monitoring of mouse sleep and other behaviors. M. STRIZ; M. SETHI; T. ZHANG; H. L. CANTER; J. BRIGHAM; S. JOSHI; R. GOOCH; M. GOPALAIAHGARI; F. YAGHOUBI; K. D. DONOHUE; S. SUNDERAM; B. F. O'HARA*. *Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky, Univ. of Kentucky.*

9:00 NNN25 **586.26** Validation of automated pruritus sensing in mice and rats. J. C. SKAHEN*; M. MARINO; S. MALKMUS; Y. SHTAERMAN; T. L. YAKSH. *UCSD Anesthesia Res. Lab.*

10:00 NNN26 **586.27** Development of an evaluation method that analyzed the motor performance among elderly people using handwriting features. T. ISHIZAKI*; K. TOKUTAKE; T. WATANABE; S. ARIOKA; E. TANAKA; T. ANME; H. KAWAGUCHI. *TOYO UNIVERSITY, Univ. of Tsukuba, Toyo Univ.*

11:00 NNN27 **586.28** Assessment of central sensitization in chronic pain patients: The influence of crosstalk on reflex receptive field mapping. M. B. JENSEN*; J. BIURRUN MANRESA; O. K. ANDERSEN. *Aalborg Univ.*

8:00 NNN28 **586.29** Predicting mental health disorders based on the time intervals between strokes while writing numbers. H. KAWAGUCHI*; S. TAKISE. *Toyo Univ.*

9:00 NNN29 **586.30** A novel test of motor and other neurological dysfunctions in mice. A. M. BARTH*; I. MODY. *UCLA Sch. of Med.*

10:00 NNN30 **586.31** Biocompatibility analysis by histological techniques of nanostructured materials in the central nervous system. P. R. ARTEAGA-LOPEZ*; A. MORA LAZARINI; I. SANCHEZ-JERONIMO. *Univ. Autonoma Metropolitana Iztapalapa, CINVESTAV, Univ. Autonoma Metropolitana Iztapalapa.*

POSTER

587. Computation, Modeling, and Simulation VII

Theme G: Novel Methods and Technology Development

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

8:00 NNN31 **587.01** Microscale impedance measurements are consistent with diffusive electrical properties of extracellular media. C. BEDARD; J. GOMES; Y. ZERLAUT; M. NELSON; S. VALTCHEVA; L. VENANCE; P. POUGET; T. BAL; A. DESTEXHE*. *CNRS, ICM, Col. de France.*

9:00 NNN32 **587.02** Computational model of a charge steering DBS electrode. A. WILLSIE*; A. D. DORVAL. *Univ. of Utah.*

10:00 NNN33 **587.03** The effects of realistic conductivity distribution and slice geometry on simulations of local field potentials and in Current Source Density analysis. D. K. WOJCIK*; T. B. NESS; C. H. CHINTALURI; J. POTWOROWSKI; H. GLABSKA; S. LESKI; G. T. EINEVOLL. *Nencki Inst. of Exptl. Biol., Norwegian Univ. of Life Sci., Nencki Inst. of Exptl. Biol.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

11:00 NNN34 **587.04** Fornix deep brain stimulation induces functional activation in hippocampal circuitry. E. K. ROSS*; J. KIM; S. HAN; P. MIN; K. LEE. *Mayo Clin. Col. of Med., Mayo Clin., Mayo Clin.*

8:00 NNN35 **587.05** Simulation analysis of conduction block in unmyelinated axon after high-frequency electrical stimulation. G. YANG*; J. WANG; J. R. ROPPOLO; W. C. DE GROAT; C. TAI. *Univ. of Pittsburgh, Beijing Jiaotong Univ., Univ. of Pittsburgh.*

9:00 NNN36 **587.06** Frequency scaling properties of EEG and MEG signals at high frequencies are consistent with diffusive electric properties of intracellular and extracellular media. N. DEHGHANI*; C. BEDARD; S. CASH; E. HALGREN; A. DESTEXHE. *Harvard Univ., Ctr. Natl. de la Recherche Scientifique (CNRS), Harvard Med. School., Univ. of Californica, San Diego (UCSD).*

10:00 NNN37 **587.07** Impact of surface charges on cellular mechanics in a uniform DC electric field - A model study. H. YE*. *Dept. of Biol.*

11:00 NNN38 **587.08** EEG cortical patch sources and equivalent dipole source localization. Z. AKALIN ACAR*; S. MAKEIG. *Univ. of California San Diego, Univ. of California San Diego.*

8:00 NNN39 **587.09** Spatial and polarity precision of high-definition transcranial direct current stimulation (HD-tDCS). M. ALAM; M. BIKSON*; D. TRUONG. *City Col. of New York.*

POSTER

588. Computation, Modeling, and Simulation VIII

Theme G: Novel Methods and Technology Development

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

8:00 NNN40 **588.01** Fast and reliable estimation of non-Gaussian stimulus receptive fields using large-margin classification. A. F. MEYER*; J. DIEPENBROCK; F. OHL; J. ANEMÜLLER. *Carl Von Ossietzky Univ. Oldenburg, Leibniz Inst. for Neurobio.*

9:00 NNN41 **588.02** Introducing the Si elegans project - The quest for understanding, emulating and reverse-engineering nervous system function in Caenorhabditis elegans. A. BLAU*; A. DE MAURO; E. DI FABRIZIO; G. EPELDE; C. LIBERALE; G. MACLAIR; M. MCGINNITY; F. MORGAN; V. RAJAMANICKAM. *The Italian Inst. of Technol. (IIT), Vicomtech-IK4, The Italian Inst. of Technol. (IIT), Univ. of Ulster, Natl. Univ. of Ireland.*

10:00 NNN42 **588.03** Analytical conditions for the entrainment of basal ganglia structures by their exogenous inputs. A. CHAILLET*. *L2S - Supélec.*

11:00 NNN43 **588.04** A neural coding scheme to allow global workspace functionality. K. J. HAYWORTH*. *Howard Hughes Med. Inst.*

8:00 NNN44 **588.05** Modeling hierarchical visual computation with the Matlab environment for deep architecture learning (MEDAL). D. E. STANSBURY*; J. L. GALLANT. *Univ. of California, Berkeley, Univ. of California, Berkeley.*

9:00 NNN45 **588.06** ▲ A NetLogo model of the Notch regulatory network in the determination of developmental patterning. R. HIMMELWRIGHT; J. PFAFFMANN; E. R. REYNOLDS*. *Lafayette Col., Lafayette Col.*

10:00 NNN46 **588.07** Machine intelligence and learning in avionic systems. H. C. YUAN*. *Raytheon.*

11:00 NNN47 **588.08** ▲ Are you smarter than a mouse? J. F. CYSNER*; M. MANGLANI; N. ESCALONA; M. TAYLOR; E. JOHNSON; L. A. GABEL. *Lafayette Col., Lafayette Col., Lafayette Col., Washington State Univ., Boise State Univ., Lafayette Col.*

8:00 NNN48 **588.09** SCRalyze - a toolbox for inferring sympathetic arousal from physiological recordings. D. R. BACH*; R. J. DOLAN; K. J. FRISTON. *Zurich Univ. Hosp. For Psychiatry, Univ. Col. London.*

9:00 NNN49 **588.10** Multi-scale community organization of the human structural connectome and its relationship with resting-state functional connectivity. R. F. BETZEL*; A. GRIFFA; A. AVENA-KOENIGSBERGER; J. GOÑI; J. THIRAN; P. HAGMANN; O. SPORNS. *Indiana Univ., Indiana Univ., Ecole Polytechnique Fédérale de Lausanne, Univ. Hosp. Ctr. and Univ. of Lausanne.*

10:00 NNN50 **588.11** Precision matters in gpu based eeg/meg forward solution. N. B. BANGERA*; J. D. LEWINE. *MIND Res. Network.*

11:00 NNN51 **588.12** What is all the noise about in interval timing? P. G. LYNN*; D. NOVO; S. OPRISAN; C. BUHUSI. *Col. of Charleston, Col. of Charleston, Utah State Univ.*

8:00 NNN52 **588.13** Estimating a network structure that underlies partially observed neuronal signals. M. KOMATSU*; J. NAMIKAWA; Z. C. CHAO; Y. NAGASAKA; N. FUJII; K. NAKAMURA; J. TANI. *RIKEN Brain Sci. Inst., Tokyo Inst. of Technol., RIKEN Brain Sci. Inst., KAIST.*

9:00 NNN53 **588.14** An efficient finite difference approach to solving the time-fractional diffusion equation. N. BHATTACHARYA*; G. A. SILVA. *UCSD.*

10:00 NNN54 **588.15** The investigation of reduction processing in FSCV using PPV. D. KIM*; Y. OH; H. SHIN; I. KIM; C. KIMBLE; K. BENNET; K. LEE; D. JANG. *Hanyang Univ., Mayo Clin., Mayo Clin., Mayo Clin.*

11:00 NNN55 **588.16** Finite elements ear model for sound transmission simulation. Y. PARK*; D. JANG; I. KIM. *Hanyang Univ.*

8:00 NNN56 **588.17** ● Optimal stimulus waveforms for controlling the behavior of a neuron: Gradient-based analysis reveals multiplicity of solutions. J. CHANG*; D. PAYDARFAR. *Univ. of Massachusetts Med. Sch., Wyss Inst. for Biologically Inspired Engin. at Harvard Univ.*

9:00 NNN57 **588.18** ● Detecting different states of migraineurs based on resting eeg and ssvep habituation. L. KO*; K. LAI; S. HUANG; M. YANG; C. LIN; S. WANG. *Natl. Chiao Tung Univ., Neurolog. Inst.*

10:00 NNN58 **588.19** A computable database for neural model generation. F. ROTHGANGER*; D. TRUMBO; C. WARRENDER; B. AIMONE. *Sandia Natl. Labs.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

SPECIAL LECTURE *San Diego Convention Center*

589. ● **Plasticity in the Adult Brain: Neurogenesis and Neuroepigenetics** — CME

Tue. 1:00 PM - 2:10 PM — Ballroom 20

Speaker: H. SONG*, Johns Hopkins Univ. SOM.*

Adult mammalian brains exhibit much more plasticity and regenerative capacity than previously thought, including generation of functionally integrated new neurons via adult neurogenesis. This lecture summaries recent work on understanding basic properties of adult neural stem cells and molecular, cellular, and circuitry mechanisms regulating the sequential adult neurogenesis process *in vivo*. Neuroepigenetics, particularly novel active DNA modifications in the nervous system, will also be highlighted.

SYMPOSIUM *San Diego Convention Center*

590. How the Lateral Hypothalamus Links Energy Status With Motivated Behaviors — CME

Tue. 1:30 PM - 4:00 PM — 6A

Chair: A. G. WATTS

The lateral hypothalamus has been recognized for many years as essential for organizing motivated behaviors, particularly sleep, feeding, and reward-related functions. This symposium will present exciting new findings that are making seminal contributions to our understanding of the cellular- and systems-level mechanisms that form the basis for how this key brain region links metabolic signals with the neural substrates of food choices and addictive behaviors.

1:30 **590.01** Introduction.

1:35 **590.02** Nutrient sensing in the lateral hypothalamus. D. I. BURDAKOV. *Univ. of Cambridge.*

2:10 **590.03** Lateral hypothalamic neurotensin neurons regulate motivated behaviors and energy balance. G. LEINNINGER. *Michigan State Univ.*

2:45 **590.04** A prefrontal-amygdala-lateral hypothalamic network and the control of feeding by learned cues. G. PETROVICH. *Boston Col.*

3:20 **590.05** Seeking reward: overdoing it with orexin neurons. G. ASTON-JONES. *Med. Univ. South Carolina.*

3:55 **590.06** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

591. Therapeutic Neuromodulation with Transcranial Current Stimulation: Ready for Rational Design? — CME

Tue. 1:30 PM - 4:00 PM — 6B

Chair: F. FROHLICH

Co-Chair: M. A. NITSCHE

Transcranial current stimulation (TCS) is a promising non-invasive brain stimulation approach to modulate and enhance brain dynamics. However, to realize the clinical potential as a therapeutic for a broad range of CNS disorders, TCS paradigms need to become more targeted. Here, we synthesize recent breakthroughs on models, mechanisms, and clinical applications of transcranial current stimulation and their roles in preparing the field for rational design of TCS for therapeutic neuromodulation.

1:30 **591.01** Introduction.

1:35 **591.02** Mechanisms of TCS: network resonance by weak global perturbations in computational models, animal model systems, and humans. F. FROHLICH. *Univ. of North Carolina.*

1:55 **591.03** ● Stronger, longer, better? Optimizing physiological effects of tDCS in humans. M. A. NITSCHE. *Georg-August-University.*

2:15 **591.04** ● Focusing the effects of electrical brain stimulation by High-Definition tDCS (HD-tDCS). M. BIKSON. *City Col. of New York.*

2:35 **591.05** Optimizing tDCS protocols for the treatment of depression: the role of pharmacology. A. BRUNONI. *Univ. of São Paulo.*

2:55 **591.06** Optimizing tDCS protocols for motor rehabilitation after stroke: Combining stimulation with motor activity. N. BOLOGNINI. *Univ. di Milano-Bicocca.*

3:15 **591.07** tDCS for speech rehabilitation after stroke: which patients do profit most? N. PAIK. *Seoul Natl. Univ. Col. of Med.*

3:35 **591.08** Closing Remarks.

MINISYMPOSIUM *San Diego Convention Center*

592. Electrical Coupling and Microcircuits: Network Operation and Plasticity — CME

Tue. 1:30 PM - 4:00 PM — 6E

Chair: J. JING

Electrical coupling, in conjunction with chemical connections and intrinsic properties of circuit neurons, contributes to the activity and plasticity of both invertebrate and vertebrate neural networks. This minisymposium will highlight recent studies in several model systems that offer novel insights for electrical coupling's roles in sensory and motor functions, neural computations, decision making, regulation of network activity, and learning and memory.

1:30 **592.01** Introduction.

1:35 **592.02** Electrical synapses mediate coincidence detection in *C. elegans* mechanosensory circuits. W. R. SCHAFER. *MRC Lab. of Mol. Biol.*

1:55 **592.03** Gap junctions determine *C. elegans* motor circuit output preference. M. ZHEN. *Mount Sinai Hosp.*

2:15 **592.04** Functional differentiation of a population of electrically coupled heterogeneous circuit elements in *Aplysia*. J. JING. *Nanjing Univ.*

2:35 **592.05** Electrical functions of gap junctions beyond synchrony in mammalian inhibitory interneurons. K. VERVAEKE. *Janelia Farm research campus.*

2:55 **592.06** Reward-induced, dopamine-dependent plasticity in electrical coupling, and neuronal excitability regulates rhythmogenesis in an *Aplysia* motor network. R. NARGEOT. *Univ. Bordeaux, CNRS UMR5287.*

3:15 **592.07** Heterotypic gap junctions between two mushroom body modulatory neurons are necessary for *Drosophila* memory formation. C. WU. *Chang Gung University, Col. of Med.*

3:35 **592.08** Closing Remarks.

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

MINISYMPOSIUM *San Diego Convention Center*

593. Perceptual Spaces: Mathematical Structures to Neural Mechanisms — CME

Tue. 1:30 PM - 4:00 PM — 28A

Chair: Q. ZAIDI

Co-Chair: J. D. VICTOR.

The minisymposium consists of six presentations that combine computational, physiological, and psychophysical approaches to investigate a range of perceptual spaces (color, visual form, sound, music, smell, and touch). The speakers will show how the geometric structures of perceptual spaces can be determined experimentally, show how these structures provide insights into principles of neural coding and the neural mechanisms that generate the codes, and look into the neural processing of complex sensory stimuli.

1:30 **593.01** Introduction.

1:35 **593.02** Geometric structure of perceptual color space. Q. ZAIDI. *SUNY Col. of Optometry.*

1:55 **593.03** The perceptual space of the elements of spatial vision. J. VICTOR. *Weill Cornell Med. Col.*

2:15 **593.04** Spatial and temporal mechanisms in the sense of touch: dual mechanisms allow for tangible textures over a wide range of spatial scales. S. BENSMAIA. *Univ. of Chicago.*

2:35 **593.05** Insight into the perceptual space of sound from the analysis and synthesis of real-world audio. J. MCDERMOTT. *MIT.*

2:55 **593.06** Encoding statistical properties of natural sounds in the mammalian auditory cortex. M. GEFFEN. *Univ. of Pennsylvania Sch. of Med.*

3:15 **593.07** The high-dimensional computational architecture of odor representations. T. CLELAND. *Cornell Univ.*

3:35 **593.08** Closing Remarks.

HISTORY OF NEUROSCIENCE LECTURE *San Diego Convention Center*

594. Reward Circuitry in the Brain

Tue. 2:30 PM - 3:40 PM — Ballroom 20

Speaker: R. A. WISE, *Natl. Institute on Drug Abuse, NIH.*

The discovery that rats would work for brief electrical stimulation of the brain led to the notion of specialized brain circuitry for the "stamping in" of learning. Longer stimulation at the same brain sites induced drive states for feeding, predatory attack, and other motivated behaviors. Subsequent pharmacological and parametric studies implicated forebrain dopamine systems as the final common path for these effects. These findings formed the early basis for our current view and new optogenetic studies of the special role of dopamine in learning, motivation, and addiction.

PRESIDENTIAL SPECIAL LECTURE *San Diego Convention Center*

595. Understanding Cortical Hierarchies: The Six-Piece Puzzle of Face Perception — CME

Tue. 5:15 PM - 6:25 PM — Ballroom 20

Speaker: D. Y. TSAO, *Caltech.*

Understanding how the brain distills a representation of meaningful objects from retinal input is one of the central challenges of systems neuroscience. Functional imaging experiments in the macaque reveal that one ecologically important class of objects, faces, is represented by a system of six discrete, strongly interconnected regions. Electrophysiological recordings show that these "face patches" have unique functional profiles. By understanding the distinct visual representations maintained in these six face patches, the sequence of information flow between them, and the role each plays in face perception, we can gain new insights into hierarchical information processing in the brain.

NANOSYMPOSIUM

596. Synapse Formation: Transsynaptic Mechanisms

Theme A: Development

Tue. 1:00 PM – *San Diego Convention Center*, 25A

1:00 **596.01** The adhesion GPCR flamingo functions in axon guidance, extension and synaptogenesis in *C. elegans.* B. D. ACKLEY*. *Univ. Kansas.*

1:15 **596.02** Neuronal functions of latrophilins. T. LANGENHAN*; J. GEHRING; N. HARTMANN; D. LJASCHENKO; R. FISCHER; N. WAGNER; E. ASAN; R. J. KITTEL. *Univ. of Würzburg, Univ. of Würzburg, Univ. of Würzburg.*

1:30 **596.03** C1Q-like (C1QL) proteins modulate synapse density through interaction with BAI3 GPCR. D. MARTINELLI*; S. RESSL; A. T. BRUNGER; T. C. SÜDHOF. *Stanford Univ. Sch. of Med.*

1:45 **596.04** GPR56 functions together with alpha3beta1 integrin in regulating cerebral cortical development. S. JEONG*; R. LUO; K. SINGER; S. GIERA; X. PIAO. *KBRI, Boston Children's Hosp. and Harvard Med. Sch.*

2:00 **596.05** A novel and evolutionarily conserved domain of adhesion-gpcrs mediates autoproteolysis. D. ARAC-OZKAN*; A. BOUCARD; M. BOLLIGER; J. NGUYEN; M. SOLTIS; T. SUDHOF; A. BRUNGER. *Univ. of Chicago, Stanford Univ.*

2:15 **596.06** The adhesion GPCR BAI3 coordinates dendritogenesis and synaptogenesis during brain development. S. M. SIGOILLOT; K. IYER; M. TALLEUR; G. VODJDANI; F. SELIMI*. *CIRB- Collège De France, CRICM, UPMC/Inserm UMR_S975/CNRS UMR7225.*

2:30 **596.07** IL-1 beta alters cortical connectivity in development and disease through regulating synaptic localization of IL-1 beta receptors. M. ESTES*; A. MCALLISTER. *UC Davis.*

2:45 **596.08** Extracellular EphB tyrosine phosphorylation regulates EphB-NMDAR interaction and function. K. HANAMURA; S. I. SHEFFLER-COLLINS; N. XIA; D. V. TILLU; D. S. SPELLMAN; G. ZHANG; T. A. NEUBERT; T. J. PRICE; M. B. DALVA*. *Thomas Jefferson Univ., Univ. of Pennsylvania, The Univ. of Arizona Col. of Med., Skirball Institute/New York Univ. Sch. of Med.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 **596.09** Unbiased discovery of glypican as a novel receptor for LRRTM4 in regulating excitatory synapse development. J. DE WIT*; M. L. O'SULLIVAN; J. N. SAVAS; J. R. YATES, III; A. GHOSH. *VIB Ctr. for the Biol. of Dis., Univ. of California San Diego, The Scripps Res. Inst.*

3:15 **596.10** SynCAM 1-mediated adhesion modulates structure and function of retinal ribbon synapses. A. RIBIC*; B. MEHTA; M. CRAIR; D. ZENISEK; T. BIEDERER. *Yale Univ., Yale Univ.*

3:30 **596.11** Distinct roles for N-cadherin in postsynaptic molecular organization, plasticity and function of mature synapses. J. S. NIKITCZUK; M. L. SHAPIRO; G. W. HUNTLEY*. *Icahn Sch. of Med. at Mount Sinai.*

3:45 **596.12** Assembly of post-synapses by neurexin-neuroligin adhesions : Kinetics, signaling, and function. O. THOUMINE*; M. MONDIN; G. GIANNONE; K. CZONDOR; I. CHAMMA; M. SAINLOS; M. HEINE; J. SIBARITA; D. CHOQUET. *IINS UMR CNRS 5297, Leibniz Inst. for Neurobio.*

4:00 **596.13** An LRRTM4-HSPG complex mediates excitatory synapse development on dentate gyrus granule cells. T. J. SIDDIQUI*; P. K. TARI; S. A. CONNOR; P. ZHANG; F. A. DOBIE; K. SHE; H. KAWABE; Y. T. WANG; N. BROSE; A. M. CRAIG. *Univ. of British Columbia, Max Planck Inst. for Exptl. Med., Univ. of British Columbia.*

NANOSYMPOSIUM

597. Microglia and Oligodendrocytes: Cell Biology and Function

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

Tue. 1:00 PM – *San Diego Convention Center*, 24A

1:00 **597.01** RXR-VDR signaling regulates oligodendrocyte precursor cell differentiation. A. GUZMAN DE LA FUENTE*; J. K. HUANG; C. KERNINON; B. NAIT-OUMESMAR; C. FFRENCH-CONSTANT; R. J. M. FRANKLIN. *Univ. of Cambridge, Georgetown Univ., Ctr. de Recherche de l'Institut du Cerveau et de la Moelle Epinière, Univ. of Edinburgh.*

1:15 **597.02** Astroglial connexin 43 is important for the maintenance of oligodendrocyte precursor cells pool in the developing white matter. J. NIU; T. LI; N. HUANG; X. CHENG; L. WANG; C. GIAUME; L. XIAO*. *Dept. of Histology and Embryology, Third Military Med. Univ., Ctr. for Interdisciplinary Res. in Biol. (CIRB), Collège de France.*

1:30 **597.03** Actin dynamics drive CNS myelination. J. ZUCHERO*; B. BARRES. *Stanford Univ. Sch. of Med.*

1:45 **597.04** Dynamically regulated oligodendrocyte precursor cell (OPC) microRNAs (miRNAs) during cuprizone induced demyelination and remyelination. N. J. KUYPERS*; N. J. KUYPERS*; M. HETMAN; S. WHITTEMORE. *Kentucky Spinal Cord Injury Res. Ctr.*

2:00 **597.05** Action potential propagation in CNS axons induces a myelinic calcium rise via AMPA and NMDA receptors. I. MICU*; C. LACHANCE; A. JANSEN; J. PROFT; J. VAN MINNEN; P. K. STYS. *Univ. of Calgary, Hotchkiss Brain Inst., Univ. of Calgary, Hotchkiss Brain Inst.*

2:15 **597.06** Action potentials induce Ca^{2+} signals in Schwann cells in myelinated axons measured using transgenically targeted YC 3.60 cameleon Ca^{2+} indicator. J. T. RUSSELL*; S. PATEL; S. D. AKIN; L. A. HOLTZCLAW; S. H. WEERTH; J. PICKEL. *NIH, NIH, NIH, NIH.*

2:30 **597.07** Minocycline selectively inhibits M1 polarization of microglia in ALS. K. KOBAYASHI; S. IMAGAMA; T. OHGOMORI; N. ISHIGURO; K. KADOMATSU*. *Nagoya Univ. Grad. Sch. of Med., Nagoya Univ. Grad. Sch. of Med.*

2:45 **597.08** ● What do microglia do? Identifying a microglia-specific marker. M. L. BENNETT*; S. M. MULINYAWE; J. L. ZAMANIAN; B. A. BARRES. *Stanford Univ. Sch. of Med.*

3:00 **597.09** Morphological characterization of microglia in human neocortex. S. G. TORRES PLATAS*; S. COMEAU; A. RACHALSKI; C. CRUCEANU; G. DAL BO; B. GIROS; 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., Douglas Mental Hlth. Univ. Institute, McGill Univ.*

3:15 **597.10** Molecular and cellular characterization of microglia-like cells derived from patients with schizophrenia and their implications for the developmental insult hypothesis. L. N. HAYES*; F. ALKHUNAIZI; A. SAWA. *Johns Hopkins Univ.*

3:30 **597.11** ● Colony-stimulating factor 1 receptor signaling is necessary for microglia viability in the adult brain. K. N. GREEN*; N. N. DAGHER; M. A. KOIKE; B. WONG; H. NGUYEN; B. L. WEST. *Univ. of California, Plexxikon Inc.*

NANOSYMPOSIUM

598. Alzheimer's Disease: Tau Biology

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, 23A

1:00 **598.01** Exicitatory neuronal activity regulates extracellular tau *in vivo.* K. YAMADA*; F. LIAO; F. R. STEWART; T. E. MAHAN; J. R. CIRRITO; T. K. PATEL; K. HOCHGRÄFE; E. MANDELKOW; D. M. HOLTZMAN. *Washington Univ., DZNE (German Ctr. Neurodegen. Diseases), CAESAR Res. Ctr., CAESAR Res. Ctr.*

1:15 **598.02** Impairment in reference memory associated with an increase (and not a decrease) in synaptic and neuronal markers in young adult triple transgenic mouse model of Alzheimer disease. N. BAAZAOUI*; K. IQBAL. *New York Inst. For Basic Res., New York Inst. For Basic Res.*

1:30 **598.03** ● Systematic administration of tau oligomer-specific antibody averts tauopathy phenotypes in two different animal models. R. KAYED*; D. L. CASTILLO-CARRANZA; J. E. GERSON; M. J. GUERRERO-MUNOZ; U. SENGUPTA. *Univ. Texas Med. Br.*

1:45 **598.04** Radiation induces increased tau phosphorylation. X. ZHU*; L. LI; W. WANG; X. WANG. *Case Western Reserve Univ.*

2:00 **598.05** Pro-aggregant human Tau repeat domain (ΔK280) impairs morphology and function of mossy fiber boutons. J. M. DECKER*; L. MESSING; E. MANDELKOW. *DZNE, caesar Res. Ctr., Max-Planck-Institute for Neurolog. Res.*

2:15 **598.06** Tau mediates neurotoxicity by impeding endoplasmic reticulum function. M. BODERO; I. ELGUMATI; S. MEIER; A. NEAL; M. THIBAULT; J. F. ABISAMBRA*. *Univ. of Kentucky.*

2:30 **598.07** ● Effects of a Tau therapeutic antibody on the ISF/CSF levels of secreted Tau in the P301L mouse model. I. GRISWOLD-PRENNER*; S. HUSSAIN; T. BYUN; J. BRIGHT; S. TOM; B. COOPER; N. STAGLIANO; G. PARRY; S. WRIGHT. *Ipierian, Ipierian, Ipierian.*

2:45 **598.08** Mechanism of tau transfer: Insights from cell culture and *in vivo* animal models. J. W. WU*; L. LIU; K. DUFF. *Columbia Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 **598.09** Organotypic slices from inducible mice expressing pro-aggregant Tau repeat domain: CA3 neurons develop impairment of Ca++ dynamics in parallel with pre- and postsynaptic morphological changes. L. MESSING*; J. DECKER; E. MANDELKOW. *DZNE, caesar Res. Ctr., Max-Planck-Institute for Neurolog. Res.*

3:15 **598.10** Dopamine D2 receptor signaling modifies tau pathology. B. C. KRAEMER*; J. WHEELER; P. MCMILLAN. *Veterans Affairs Puget Sound Hlth. Care Syst., Veterans Affairs Puget Sound Hlth. Care Syst.*

3:30 **598.11** ● A T-cell independent anti-phospho-Tau vaccine for treatment of Alzheimer's disease demonstrates high immunogenicity and specificity in Tau transgenic mice and cynomolgus monkeys. A. MUHS*; M. PIHLGREN; V. GAFNER; M. LOPEZ DEBER; D. T. HICKMAN; P. REIS; S. CRAIGE; R. MADANI; F. CAPOTOSTI; O. ADOLFSSON; N. CHUARD; D. MLAKI NDAO; A. GRANET; C. THEUNIS; N. CRESPO-BIEL; P. BORGHGRAEF; H. DEVIJVER; A. PFEIFER; F. VAN LEUVEN. *AC Immune SA, KULeuven.*

NANOSYMPOSIUM

599. Cognitive Function Related to Alzheimer's Disease

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, 33C

1:00 **599.01** Increased hippocampal neurogenesis and prolonged amelioration of memory deficits by chronic oxotremorine treatment in a rodent model of Alzheimer's disease. D. V. NAIR*; M. M. AL-BADRI; M. ROGIDO; J. PACHECO-QUINTO; H. PENG; D. IACONO; C. B. ECKMAN; E. A. ECKMAN. *Atlantic Hlth. System, Morristown, NJ and Biomed. Res. Inst. of New Jersey.*

1:15 **599.02** ● Visual working memory deficits in early stages of familial Alzheimer's disease. Y. LIANG*; Y. PERTZOV; S. CRUTCH; J. NICHOLAS; T. SHAKESPEAR; F. WOODWARD; K. YONG; N. FOX; M. HUSAIN. *Dementia Res. Ctr., Inst. of Cognitive Neurosci., Univ. Col. London, Univ. of Oxford.*

1:30 **599.03** Hippocampal CA1 dendritic neuroplasticity in mild cognitive impairment during the progression of Alzheimer's disease. R. F. MERVIS*; S. K. FOLEY; C. J. PATEL; S. ZAJD; M. ARADI; G. S. WALHA; P. SOLANKI; S. W. SCHEFF; E. J. MUFSON. *Neurostructural Res. Labs, Univ. of South Florida Col. of Med., Univ. of South Florida, Univ. of Kentucky, Rush Univ. Med. Ctr.*

1:45 **599.04** ● Caspase-6 activation in the hippocampal CA1 region induces neurodegeneration and age-dependent memory impairment in mice and humans. A. C. LEBLANC*; J. RAMCHARITAR; V. AFONSO; S. ALBRECHT; D. BENNETT. *Lady Davis Inst. Med. Res., McGill Univ., Lady Davis Inst. for Med. Res., Rush Med. Ctr.*

2:00 **599.05** Working memory impairment in amnestic mild cognitive impairment is associated with changes in **POSTER**ior cingulate white matter tract. Y. CHANG*; Y. SHIH; S. LIN; P. CHEN; C. LIN; Y. ZHUO; T. CHEN; S. YAN; W. TSENG. Natl. Taiwan Univ., Natl. Taiwan Univ., Natl. Taiwan Univ. Hosp., Section of Neurology, Renai Branch, Taipei City Hosp., Natl. Taiwan Univ. Hosp., Natl. Taiwan Univ.

2:15 **599.06** Role of type 2 diabetes in the Alzheimer´s disease and vascular dementia: Foundations of type 3 diabetes. J. RAMOS RODRÍGUEZ*; O. ORTIZ-BARAJAS; M. JIMENEZ-PALOMARES; G. PERDOMO; I. COZAR-CASTELLANO; A. LECHUGA-SANCHO; M. GARCIA-ALLOZA. *Col. of Medicine. Univ. of Cadiz, Univ. Hosp. Puerta del Mar.*

2:30 **599.07** Myocardial infarct in middle age rats is followed by mild cognitive impairment compatible with neurodegenerative diseases of aging. R. GODBOUT*; M. PARENT; T. BAH; G. ROUSSEAU. *Hop. Du Sacré-Coeur De Montréal.*

2:45 **599.08** Behavioral phenotype of mice deficient in PDE4A: Implication in Alzheimer's disease and anxiety. H. ZHANG*; R. HANSEN; Q. WU; C. WANG; Y. HUANG; Y. CHENG; M. CONTI; J. M. O'DONNELL. *West Virginia Univ. Hlth. Sci. Ctr., Univ. of California in San Francisco.*

3:00 **599.09** ● *In vivo* neurophysiological paradigms to substitute for behavioral cognitive testing in preclinical drug discovery for symptomatic treatment of AD? W. H. DRINKENBURG*; J. KELLEY; R. BIERMANS; L. RAEYMAEKERS; A. AHNAOU. *Janssen R&D, Pharmaceut. Companies of J&J.*

3:15 **599.10** Auditory scene analysis in Alzheimer's disease: A functional MRI study of the cocktail party effect. H. L. GOLDEN*; J. L. AGUSTUS; J. C. GOLL; L. E. DOWNEY; S. J. CRUTCH; J. D. WARREN. *UCL.*

NANOSYMPOSIUM

600. Motor Neuron Disease: Mechanisms IV

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, 30B

1:00 **600.01** Identification of a novel polyglutamine-expanded aggregation species in spinal and bulbar muscular atrophy. T. R. BERGER*; E. HEINE; H. MONTIE; Y. LIU; L. COOPER; D. MERRY. *Thomas Jefferson Univ.*

1:15 **600.02** Microglia induce motor neuron death via the classical NF-κB pathway in amyotrophic lateral sclerosis. A. FRAKES*; L. FERRAIUOLO; L. SCHMELZER; L. BRAUN; C. MIRANDA; B. KASPAR. *The Res. Inst. At Nationwide Children's Hosp., Nationwide Children's Hosp.*

1:30 **600.03** ● Phosphorylation of FUS induced by DNA damage regulates cytoplasmic accumulation of FUS. T. L. KUKAR*; Q. DENG; C. HOLLER; G. TAYLOR; K. HUDSON; M. GEARING; J. GLASS; N. SEYFRIED. *Emory Univ., Emory Univ., Emory Univ.*

1:45 **600.04** Suppressors and enhancers of proteotoxicity in *C. elegans* models of neurodegeneration. A. JABLONSKI*; R. G. KALB. *Univ. of Pennsylvania, Children's Hosp. of Philadelphia.*

2:00 **600.05** Expanded UGGAA repeat RNA associated with SCA31 causes neurodegeneration in *Drosophila.* T. ISHIGURO; N. FUJIKAKE; N. SATO; H. MIZUSAWA; K. WADA; Y. NAGAI; K. ISHIKAWA*. *Tokyo Med. and Dent. Univ., Natl. Inst. of Neuroscience, Natl. Ctr. of Neurol. and Psychiatry.*

2:15 **600.06** Mutant tdp-43 in astrocytes causes non-cell-autonomous motor neuron death in transgenic rats. B. HUANG; C. HUANG; X. LIU; H. ZHOU*. *Thomas Jefferson Univ.*

2:30 **600.07** Oligodendrocytes from the ALS mouse model and ALS patients are toxic to motor neurons *in vitro.* L. FERRAIUOLO*; K. MEYER; C. MIRANDA; L. BRAUN; B. KASPAR. *Nationwide Children's Hosp.*

2:45 **600.08** Skin derived astrocytes from C9orf72 and sporadic ALS patients are toxic to motor neurons. K. C. MEYER*; L. FERRAIUOLO; C. MIRANDA; S. LIKHITE; S. MCELROY; C. LARGIER-TOURENNE; J. RAVITS; P. SHAW; D. CLEVELAND; S. KOLB; B. KASPAR. *Res. Inst. Nationwide Childrens Hosp., Ludwig Inst., Dept. of Neurosciences, Academic Unit of Neurol., Dept. of Mol. & Cell. Biochem.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 **600.09** Impairment of microtubule-dependent transport of TDP-43 triggers its aggregation, leading to neurodegeneration in *Drosophila* models of TDP-43 proteinopathies. N. FUJIKAKE; N. KIMURA; Y. SAITOH; M. SUZUKI*; A. YOKOSEKI; O. ONODERA; K. WADA; Y. NAGAI. *NCNP, Natl. Inst. Neurosci, Natl. Ctr. of Geriatr & Gerontol, Niigata Univ.*

3:15 **600.10** Regulation of motor neuron degeneration in spinal muscular atrophy. Y. MA*; N. MILLER; B. YANG; J. MCGIVERN; K. QUINLAN; C. COWAN; A. EBERT. *Northwestern University/Children's Hosp. Res. Ctr., Med. of Wisconsin, Northwestern Univ., Harvard Med. School/ McLean Hosp.*

3:30 **600.11** Understanding the regulatory mechanisms of SMN stability. R. CHAUHAN*; B. AKTEN; H. LE; H. NAWABI; N. LITTERMAN; Z. HE; L. RUBIN; R. KING; C. BEATTIE; J. STEEN. *Boston Children's Hosp., Proteomics Center, BCH, Boston Children's Hosp., The Ohio State University, Dept. of Neurosci., Harvard Univ., Dept. of Cell Biology, Harvard Med. Sch.*

3:45 **600.12** Causes and consequences for dysregulated microRNAs in ALS. E. HORNSTEIN*; A. EMDE; T. YARDENI; I. REICHENSTEIN; M. SKOROVSKY; T. MÖLLER; J. M. RAVITS. *Weizmann Inst. of Sci., Univ. of Washington, Univ. of California, SD.*

4:00 **600.13** Identification of the molecular defect of at-1-associated autosomal dominant spastic paraplegia 42. M. LI*; M. PEHAR; Y. PENG; L. PUGLIELLI. *Univ. of Wisconsin, VAH-GRECC 11G, Univ. of Wisconsin.*

NANOSYMPOSIUM

601. Oxidative Stress and Cell Death Mechanisms in the Nervous System

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, 32B

1:00 **601.01** Sirt3 deacetylase activity protects neurons from ischemic injury. C. C. ALANO*; S. KIM. *VAMC/UCSF.*

1:15 **601.02** Role for GAPDH-PARP-1 signaling in stroke brain damage. H. NAKAJIMA*; T. KUBO; H. IHARA; T. HIKIDA; T. DANJO; N. SHAHANI; M. ITAKURA; Y. AZUMA; T. TAKEUCHI; A. SAWA. *Osaka Prefecture Univ., Johns Hopkins Univ. Sch. of Med., Osaka Prefecture Univ., Osaka Prefecture Univ., Kyoto Univ. Grauate Sch. of Med., Osaka Biosecience Inst.*

1:30 **601.03** Induction of a novel AIF3 isoform in brain leads to mitochondrial dysfunction and neurodegeneration. Y. WANG*; C. CHANG; J. ZHANG; K. NAMBIAR; M. SASAKI; M. J. MCCAFFERY; R. C. KOEHLER; V. L. DAWSON; T. M. DAWSON. *Johns Hopkins Univ. Sch. of Med., Johns Hopkins Univ.*

1:45 **601.04** BN-PAGE and 4-HNE analyses of respiratory chain organization and oxidative stress in mouse brain. K. J. BUCK*; N. A. WALTER; D. DENMARK; M. KHAWAJA; L. B. KOZELL. *VA Med. Ctr. and Oregon Hlth. & Sci. Univ., VAMC and OHSU.*

2:00 **601.05** Mitochondrial complex I defects increase ubiquitin in DA neurons. L. SONG*; G. CORTOPASSI. *Univ. of California-Davis.*

2:15 **601.06** Dysregulated axonal trafficking of nuclear-encoded mitochondrial COXIV mRNA in the forebrain of transgenic mice alters animal behavior. A. KAR*; K. REICHARD; C. SUN; N. M. GERVASI; A. E. GIOIO; J. PICKEL; K. NAKAZAWA; B. B. KAPLAN. *NIH, Natl. Inst. of Mental Hlth., Natl. Inst. of Mental Hlth.*

2:30 **601.07** Anti-oxidative and anti-apoptotic properties of resveratrol in a dopaminergic model of hyperglycemia: Role of glucose-regulated protein 75. J. RENAUD*; J. BOURNIVAL; M. MARTINOLI. *Lab. de neurobiologie cellulaire.*

2:45 **601.08** Density-dependent dual effects of oxidative stress in HT22 murine hippocampal cells. K. MIURA*; M. ISHII; K. ISHIBASHI; Y. OGURA; M. NISHIHARA; T. NEDACHI. *Toyo Univ., the Univ. of Tokyo.*

3:00 **601.09** mAKAP is necessary for retinal ganglion cell survival after optic nerve injury. M. I. MORKIN*; Y. WANG; M. D. KRITZER; M. KAPILOFF; J. L. GOLDBERG. *Bascom Palmer Eye Inst., Univ. of California San Diego, Univ. of Miami.*

3:15 **601.10** Kainate-mediated excitotoxicity provokes a transient recruitment of circulating PU.1-expressing cells to the brain and is differently modulated by peripheral or central expression of CX3CR1. M. BELLAVANCE*; S. RIVEST. *Univ. Laval.*

3:30 **601.11** CBD3 peptide, a fragment of CRMP2, protects against glutamate-induced Ca dysregulation by attenuating both NMDAR and Na/Ca exchanger activities. T. BRUSTOVETSKY; J. J. PELLMAN; R. KHANNA; N. BRUSTOVETSKY*. *Indiana Univ. Sch. of Med., Stark Neurosci. Res. Inst.*

NANOSYMPOSIUM

602. Extrastriate Cortex: Signals and Organization

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, 1B

1:00 **602.01** V1-independent signal processing by V4 neurons. M. C. SCHMID*; J. T. SCHMIEDT; A. MEYER; A. PETERS; R. SAUNDERS; A. MAIER; D. A. LEOPOLD. *Ernst Struengmann Inst., Univ. of California, NIMH, Vanderbilt Univ.*

1:15 **602.02** The V1 to V2 linear transfer function: Links to the biophysical properties of neurons. K. FARAH*; A. ZANDVAKILI; A. KOHN; E. P. COOK. *McGill Univ., Albert Einstein Col. of Med.*

1:30 **602.03** Size dependence of sensitivity to naturalistic stimuli in macaque V2. C. M. ZIEMBA*; J. FREEMAN; E. P. SIMONCELLI; J. A. MOVSHON. *New York Univ., Janelia Farm Res. Campus.*

1:45 **602.04** Spatial structure of v2 receptive fields in awake monkey. L. LIU*; L. SHE; M. CHEN; X. HOU; T. LIU; S. ZHU; Y. WEN; H. LU; Y. DAN; M. POO. *Inst. of Neuroscience, Chinese Acad. of Sci., Dept. of Mol. and Cell Biology, Helen Wills Neurosci. Institute, Univ. of California.*

2:00 **602.05** Topographic and functional organization of feedback connections from middle suprasylvian sulcus to primary visual cortex in the cat. R. A. GALUSKE*; N. G. JÄHNER; C. A. ROTHKOPF; S. VÖGLER; J. TRIESCH. *Systems Neurophysiology, TU Darmstadt, MPI for Brain Res., TU Darmstadt, J.W.Goethe Univ.*

2:15 **602.06** Directional signal flow between different classes of memory neurons during retrieval of object association memory in macaque inferior temporal cortex. T. HIRABAYASHI*; D. TAKEUCHI; K. TAMURA; M. TAKEDA; K. W. KOYANO; Y. MIYASHITA. *The Univ. Tokyo Sch. Med., CREST, JST, CNSI, NINS.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:30 **602.07** Human area V5/MT+ organization changes following lesions of the primary visual cortex. A. PAPANIKOLAOU*; G. A. KELIRIS; D. T. PAPAGEORGIOU; Y. SHAO; E. KRAPP; E. PAPAGEORGIOU; U. SCHIEFER; N. K. LOGOTHETIS; S. M. SMIRNAKIS. *Max-Planck Inst. For Biol. Cybernetics, Baylor Col. of Med., Ctr. for Ophthalmology.*

2:45 **602.08** The predominance of motion in fMRI responses to natural videos in the rhesus macaque. B. E. RUSS*; D. A. LEOPOLD. *NIMH/NIH.*

3:00 **602.09** Structural connectivity fingerprints predict cortical selectivity for faces, bodies, objects, and scenes. Z. M. SAYGIN*; D. E. OSHER; K. KOLDEWYN; J. GABRIELI; R. SAXE; N. KANWISHER. *MIT.*

3:15 **602.10** The organization of the Middle Temporal area (MT) and the Lateral Geniculate Nucleus (LGN) in monkeys with early-life lesions of the primary visual cortex. H. YU*; T. A. CHAPLIN; G. W. EGAN; D. H. RESER; K. H. WORTHY; M. G. P. ROSA. *Monash Univ., Monash Vision Group.*

NANOSYMPOSIUM

603. Pain Imagining and Perception

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, 5B

1:00 **603.01** Changes in prefrontal functional connectivity are associated with improved management of chronic pain following Cognitive Behavioral Therapy. M. SHPANER*; C. KELLY; G. LIEBERMAN; G. M. KRAUTHAMER; A. KALIM; M. R. NAYLOR. *Univ. of Vermont Col. of Med., NYU Child Study Center, NYU Langone Med. Ctr.*

1:15 **603.02** Attentional modulation of symptom severity in Conversion Disorder - an MEG study. H. R. BROWN*; R. A. ADAMS; K. J. FRISTON; M. J. EDWARDS. *UCL.*

1:30 **603.03** ● Noise from the periphery in autism spectrum disorders of idiopathic origins and of known etiology. E. B. TORRES*; J. NGUYEN; C. SURESH; P. YANOVICH; A. KOLEVZON. *Rutgers Univ., Rutgers Univ., Rutgers Univ., Rutgers Univ., Mount Sinai Med. Sch.*

1:45 **603.04** Neural mechanism for impairment of decision-maikng in chronic pain patients. J. LI; K. MA; D. LI; Y. ZHAO; Z. X. DONG*. *East China Normal Univ., Shanghai Jiaotong Univ.*

2:00 **603.05** ● Does Deep brain stimulation of the peri-aqueductal gray release endogenous opioids? A [^{11}C] diprenorphine PET imaging study. H. P. SIMS-WILLIAMS*; J. C. MATTHEWS; S. JAVED; S. J. LOVE-JONES; P. S. TALBOT; N. K. PATEL; A. E. PICKERING. *Univ. of Bristol, Univ. of Manchester, North Bristol NHS Trust.*

2:15 **603.06** ● Increased brain gray matter in the primary somatosensory cortex is associated with increased pain sensitivity, urinary urgency and mood disturbance in interstitial cystitis/bladder pain patients. A. KAIRYS*; T. SCHMIDT-WILCKE; E. ICHESCO; E. A. MAYER; J. A. LABUS; T. J. NESS; G. DEUTSCH; S. MACKEY; K. MARTUCCI; A. V. APKARIAN; M. A. FARMER; K. MARAVILLA; D. J. CLAUW; R. E. HARRIS. *Univ. of Michigan, Ruhr Univ. Bochum, Univ. of California Los Angeles, Univ. Alabama at Birmingham, Stanford Univ. Med. Ctr., Northwestern Univ., Univ. of Washington.*

2:30 **603.07** Assessment of resting-state cerebral blood flow in fibromyalgia patients using arterial spin labelling. E. J. MOANA-FILHO*; I. E. TCHIVILEVA; R. H. GRACELY. *UNC-Chapel Hill.*

NANOSYMPOSIUM

604. Neural and Molecular Mechanisms of Stress Response

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

Tue. 1:00 PM – *San Diego Convention Center*, 2

1:00 **604.01** Knockdown of glutamate output from infralimbic prefrontal cortex exacerbates neuroendocrine responses to chronic stress. B. MYERS*; J. M. MCKLVEEN; R. MORANO; Y. M. ULRICH-LAI; M. B. SOLOMON; S. P. WILSON; J. P. HERMAN. *Univ. of Cincinnati, Univ. of South Carolina.*

1:15 **604.02** Brain structure and stress-related processing in orbitofrontal-hippocampal-insular brain circuitry predicts basal hypothalamic-pituitary-adrenal axis reactivity. A. BOEHRINGER*; L. HADDAD; F. LEDERBOGEN; H. TOST; A. MEYER-LINDENBERG. *Central Inst. of Mental Hlth.*

1:30 **604.03** Two populations of corticosteroid receptor binding sites in the hippocampus genome. E. DE KLOET*; A. P. POLMAN; N. A. DATSON. *LACDR/LUMC, Leiden Univ.*

1:45 **604.04** Neural circuit architecture and dynamics of the serotonin-orexin/hypocretin system. A. JOSHI; J. JALEWA; T. MCGINNITY; G. PRASAD; C. HÖLSCHER; K. WONG-LIN*. *Intelligent Systems Res. Centre, Univ. of Ulster, Sch. of Biomed. Sciences, Univ. of Ulster, Lancaster Univ.*

2:00 **604.05** Role of central amygdala PACAP in the stress response. V. SABINO*; A. IEMOLO; R. DORE; X. WANG; P. COTTONE. *Boston Univ. Sch. of Med.*

2:15 **604.06** Steroid Receptor Coactivator-1 isoform switching changes the sensitivity of the central amygdala to glucocorticoids. I. ZALACHORAS*; S. L. VERHOEVE; L. J. A. TOONEN; I. M. MOL; W. MEELIS; O. C. MEIJER. *Leiden Univ. Med. Ctr., Leiden Univ.*

2:30 **604.07** Effect of naloxone microinjection into the medial amygdaloid nucleus on cardiovascular responses induced by acute restraint stress in rats. A. FASSINI*; L. B. M. RESSTEL; F. M. D. CORREA. *Univ. De Sao Paulo.*

NANOSYMPOSIUM

605. Fear and Aversive Learning and Memory: Cellular Mechanisms

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, 4

1:00 **605.01** Long non-coding RNAs: potential participants of memory formation. ; H. WU; L. SONG; Y. HOU. *Dept. of Biochemistry, Hebei Med. Univ., Dept. of Parmacy Bethune Intl. Peace Hosp.*

1:15 **605.02** Matrix Metalloproteinase (MMP)-9 transcriptions in mouse brain induced by fear learning. K. GANGULY; E. REJMAK; M. MIKOSZ; E. NIKOLAEV; R. FILIPKOWSKI*; E. KNAPSKA; L. KACZMAREK. *Nencki Inst. of Exptl. Biol., Nencki Inst. of Exptl. Biol., Univ. of Finance and Mgmt. in Warsaw.*

1:30 **605.03** egr-1 gene expression in the prefrontal cortex, hippocampus, and amygdala in the CPFE fear conditioning paradigm. T. CHAKRABORTY*; A. ASOK; S. JABLONSKI; W. SCHREIBER; M. STANTON; J. ROSEN. *Univ. of Delaware.*

1:45 **605.04** A role for the tac2 gene and nk3 receptor in fear memory consolidation. R. ANDERO GALI*; B. G DIAS; K. RESSLER. *Emory Univ., Emory Univ., HHMI, Emory Univ.*

2:00 **605.05** Melanocortin 4 receptors in aversion: Flipping motivational value. A. M. KLAWONN*; M. FRITZ; A. NILSSON; A. BLOMQVIST; D. ENGBLOM. *Fac. of Hlth. Sciences, Linköping Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:15 **605.06** Histone deacetylase inhibitors sodium butyrate and suberoylanilide hydroxamic acid (SAHA) ameliorate cocaine-induced deficits in working memory-dependent associative conditioning in C57BL6 mice. J. D. RAYBUCK*; K. M. LATTAL. *OHSU, OHSU.*

2:30 **605.07** Influencing behavior and neuroanatomy in the mammalian nervous system *via ancestral experiences.* B. G. DIAS*; K. J. RESSLER. *Emory Univ.*

2:45 **605.08** **Unable to Attend.** Girk channel signaling modulates memory of a stressful event. A. ZINK*; K. WICKMAN. *Univ. of Minnesota.*

3:00 **605.09** Past experience modifies behavior in an adult neurogenesis-dependent manner. G. D. CLEMENSON*; S. W. LEE; W. DENG; V. R. BARRERA; M. S. FANSELOW; F. H. GAGE. *Salk Inst., Univ. of California Los Angeles.*

3:15 **605.10** Maternal care differentially affects synaptic plasticity and intrinsic excitability of CA1 pyramidal neurons in the dorsal and ventral hippocampus. H. NGUYEN*; M. J. MEANEY; T. WONG. *McGill Univ., McGill Univ., McGill Univ.*

NANOSYMPOSIUM

606. Data Analysis and Statistics

Theme G: Novel Methods and Technology Development

Tue. 1:00 PM – *San Diego Convention Center*, 29D

1:00 **606.01** Mapping genetic influences on white matter fiber tracts reveals 3D profile of heritability. Y. JIN*; Y. SHI; L. ZHAN; A. W. TOGA; G. I. DE ZUBICARAY; K. L. MCMAHON; N. G. MARTIN; M. J. WRIGHT; P. M. THOMPSON. *UCLA, Univ. of Queensland, Queensland Inst. of Med. Res.*

1:15 **606.02** Bayesian connectomics. R. J. JANSSEN*; M. HINNE; T. HESKES; M. A. J. VAN GERVEN. *Radboud Univ. Nijmegen, Radboud Univ. Nijmegen.*

1:30 **606.03** Linking researchers with their research: Persistent identifiers, registries, and interoperability standards. L. L. HAAK*; R. BRYANT. *ORCID.*

1:45 **606.04** Highways and traffic: Modeling anatomical network breakdown in Alzheimer's disease. L. ZHAN*; Y. WANG; T. NIR; N. JAHANSHAD; Y. JIN; A. TOGA; P. THOMPSON; *. THE ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE. *UCLA Sch. of Med., Arizona State Univ.*

2:00 **606.05** fMRI imaging biomarkers for predicting treatment response in craving and addiction. A. ANDERSON*; M. OWYONG; J. BRAMEN; P. K. DOUGLAS, PhD; D. HAN; W. T. KERR; M. S. COHEN. *UCLA Ctr. For Cognitive Neurosci., Univ. of California, Santa Barbara, UCLA.*

2:15 **606.06** Enhancements to the Neurosynth framework for automated neuroimaging meta-analysis. T. YARKONI*; L. CHANG; J. CARP. *Univ. of Colorado Boulder, Univ. of Michigan.*

POSTER

607. Postnatal Neurogenesis: Mechanisms

Theme A: Development

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 A1 **607.01** ● Understanding combinatorial growth factor effects on adult forebrain neural precursors. S. JOPPÉ*; A. AUMONT; K. J. L. FERNANDES. *Univ. De Montréal.*

2:00 A2 **607.02** Zinc finger protein 423 integrates signaling pathways by the niche and targets hedgehog signaling gene expression during adult neurogenesis. L. FLORES-GARCIA*; J. RAY; K. CAO; W. XIE; I. SÁNCHEZ; W. A. ALCARAZ; E. RAPONI; A. HOU; F. H. GAGE; B. A. HAMILTON. *Univ. of California San Diego, Salk Inst. for Biol. Studies.*

3:00 A3 **607.03** Oxygen-dependent survival of newborn hippocampal granule cells. C. CHATZI*; G. L. WESTBROOK. *Vollum Institute, Westbrook Lab, OHSU.*

4:00 A4 **607.04** Molecular mechanisms underlying Sox2 function in adult neurogenesis. A. AMADOR*; F. CIMADAMORE; C. HUANG; R. WRIGHT; S. LEWIS; C. CHEN; F. H. GAGE; A. TERSKIKH. *SBMRI, The Salk Inst. for Biol. Studies.*

1:00 A5 **607.05** Reprogramming of astrocytes to neuronal precursors and functional neurons in the adult brain. W. NIU; T. ZANG; Y. ZOU; S. FANG; D. SMITH; R. BACHOO; C. ZHANG*. *UT Southwestern Med. Ctr., UT Southwestern Med. Ctr.*

2:00 A6 **607.06** Calcium-sensing receptor and integrin protein complexes in the developing cerebellum. S. THARMALINGAM; L. K. PACEY*; D. R. HAMPSON. *Univ. of Toronto.*

3:00 A7 **607.07** Activation of the membrane estrogen receptor GPR30 decreases cell proliferation in the hippocampus of adult female rats. P. DUARTE-GUTERMAN*; S. E. LIEBLICH; C. CHOW; L. A. M. GALEA. *Univ. of British Columbia, Univ. of British Columbia.*

4:00 A8 **607.08** Foxj1-derived lineage in the adult subventricular stem cell niche constitutes a unique ependymal-astrocytic-neuronal continuum that is established during perinatal mouse development. N. MUTHUSAMY*; A. VIJAYAKUMAR; J. BUIE; T. GHASHGHAEI. *North Carolina State Univ.*

1:00 A9 **607.09** Lentiviral vector based lineage tracing of hippocampal neural progenitor cells in the adult mouse brain. S. AELVOET; J. PASCUAL BRAZO; V. REUMERS; R. GIJSBERS; C. VAN DEN HAUTE; Z. DEBYSER; V. BAEKELANDT*. *KU Leuven, Lab. for Neurobio. and Gene Therapy, Lab. for Mol. Virology and Gene Therapy.*

2:00 A10 **607.10** Rescuing mossy fiber connectivity and anxiety-linked behavior by targeting serotonergic signaling. A. E. MARSILLO; S. SAMADDAR; P. RANJAN DEBATA; R. SCHRODER; D. KERR; S. GUARIGLIA; P. BANERJEE*. *City Univ. of New York, City Univ. of New York, Columbia Univ., City Univ. New York Staten Isla.*

3:00 A11 **607.11** Neogenin controls neurogenesis and tangential migration in the adult forebrain. H. M. COOPER*; D. BRADFORD; C. O'LEARY. *Queensland Brain Ins.*

4:00 A12 **607.12** Human neurogenesis screening using embryonic derived neuronal precursors. R. JAGASIA; T. KREMER; J. G. WETTSTEIN*; S. ZOFFMANN; M. GRAF; J. WICHMANN; I. MENDEZ-DAVID; M. EBELING; A. M. GARDIER; R. JAKOB-ROETNE; D. DAVID; M. SAXE. *F. Hoffmann-La Roche Ltd, F. Hoffmann-La Roche Ltd, Faculté de Pharmacie, Univ. Paris-Sud.*

1:00 A13 **607.13** Expression of brain-derived neurotrophic factor (BDNF) in the early postnatal hippocampus of the rat differs between the sexes and exhibits region-specific regulation by estradiol. K. E. KIGHT*; M. M. MCCARTHY. *Univ. of Maryland, Univ. of Maryland, Univ. of Maryland.*

2:00 A14 **607.14** Lipopolysaccharide reduces neuronal differentiation through its effects on serum and hippocampal cytokines and chemokines. A. ASOKAN*; B. K. ORMEROD. *Unv Florida, Gainesville, Univ. of Florida, Univ. of Florida.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 A15 **607.15** Analysis of mechanisms underlying neurogenesis in the adult hippocampus regulated by hemimethylated DNA recognition factor, Np95/Uhrf1. N. MURAO*; T. MATSUDA; H. KOSEKI; M. NAMIHIRA; K. NAKASHIMA. *Grad. Sch. of Med. Sciences, Kyushu Univ., Lab. of Gene Expression Research, Nara Inst. of Sci. and Technol., Riken Res. Ctr. for Allergy and Immunol., The Natl. Inst. of Advanced Industrial Sci. and Technol.*

4:00 A16 **607.16** The role of Galectin-3 in oligodendrogenesis in the subependymal zone after cuprizone demyelination. J. M. HILLIS*; T. J. KEYES; F. G. SZELE. *Univ. of Oxford.*

1:00 A17 **607.17** ● Manipulating the Notch signaling pathway to enhance adult forebrain neurogenesis. L. J. LEVROS*; S. E. JOPPÉ; A. AUMONT; M. LIAO; P. DRAPEAU; K. J. FERNANDES. *Univ. de Montréal.*

2:00 A18 **607.18** A novel role for pannexin 1 in the regulation of post-natal neural stem and progenitor cell cycle progression. L. E. WICKI-STORDEUR*; R. T. PRAGER; A. K. J. BOYCE; L. A. SWAYNE. *Univ. of Victoria, Univ. of Victoria, Univ. of British Columbia.*

3:00 A19 **607.19** Effects of altered expression of SynCAM1 and Neuroligin-1B on the integration and survival of new neurons in the adult hippocampus. M. KRZISCH; J. ARMIDA; L. JABINET; N. TONI*. *Univ. of Lausanne.*

4:00 A20 **607.20** Epigenetic modulation of adult hippocampal neurogenesis by extremely low-frequency electromagnetic fields. L. LEONE*; S. FUSCO; A. MASTRODONATO; R. PIACENTINI; S. A. BARBATI; S. ZAFFINA; G. PANI; M. V. PODDA; C. GRASSI. *Univ. Cattolica Del Sacro Cuore, Children's Hosp. "Bambino Gesu", Univ. Cattolica Del Sacro Cuore, Univ. Cattolica Del Sacro Cuore.*

1:00 A21 **607.21** Conditional neurofibromin 1 inactivation leads to oligodendrocyte progenitor cell genesis from multi-potent adult neural stem cells in mouse hippocampus. G. J. SUN*; S. ITO; M. A. BONAGUIDI; G. STEIN-O'BRIEN; G. MING; H. SONG. *Johns Hopkins Univ.*

2:00 A22 **607.22** Role of FoxO transcription factors in maturation of adult-born hippocampal neurons. I. SCHAEFFNER*; A. KHAN; T. SCHWARZ; R. DEPINHO; D. LIE. *Helmholtz-Zentrum Muenchen, DKFZ, The Univ. of Texas, Univ. of Erlangen.*

3:00 A23 **607.23** Cystic fibrosis transmembrane conductance regulator (CFTR) contributes to neuronal homeostasis in the mouse olfactory epithelium by regulating the function of microvillar cells. S. PFISTER*; T. WEBER; W. HÄRTIG; R. ELSAESSER; J. FRITSCHY; I. KNUESEL. *Univ. of Zurich, Univ. of Zurich, Inst. of Pharmacol. and Toxicology, Paul-Flechsig-Institut für Hirnforschung, Carl Zeiss Microscopy GmbH.*

4:00 A24 **607.24** The role of the age-regulating protein Klotho in adult neurogenesis. A. M. LASZCZYK*; S. M. BAINE; A. MALTARE; G. D. KING. *Univ. of Alabama At Birmingham.*

1:00 A25 **607.25** Clonal lineage tracing of mash1# radial precursor cells in the adult mouse dentate gyrus reveals neural stem cell characteristics. R. STADEL; M. BONAGUIDI; T. KRIEGER; R. REED; G. MING; B. SIMONS; H. SONG*. *Johns Hopkins Univ. SOM, Human Genet. Predoctoral Training Program, Gurdon Inst. Univ. of Cambridge, Dept. of Mol. Biol. and Genet., Inst. For Cell. Engin.*

2:00 A26 **607.26** Functional analysis of GABAergic and dopaminergic neurogenesis in the larval and adult hypothalamus of zebrafish. A. D. MCPHERSON*; A. D. DOUGLASS; R. I. DORSKY. *Univ. of Utah.*

3:00 B1 **607.27** Gas1 is present in multiple stages of neurogenesis in adult mice subgranular and subventricular zones. E. ESTUDILLO*; E. BAUTISTA; N. ZARCO; J. SEGOVIA-VILA. *CINVESTAV.*

4:00 B2 **607.28** A heat-inducible cre/loxp recombination in the brain of medaka fish (Oryzias latipes). Y. ISOE*. *The Univ. of Tokyo.*

1:00 B3 **607.29** Persistent mitosis of newly generated cells in the subgranular zone of the dentate gyrus in the adult rat. R. E. KALIL*; B. FICKAU; A. SLAWSON; M. HENDRICKSON; S. VERMILYEA. *Univ. of Wisconsin-Madison.*

2:00 B4 **607.30** A dynamical view of neurogenesis. J. ALJADEFF*; M. STERN; T. O. SHARPEE. *UCSD, The Salk Inst. for Biol. Studies, Hebrew Univ., Columbia Univ.*

POSTER

608. Adult Neurogenesis and Disease

Theme A: Development

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 B5 **608.01** Fluoxetine treatment improves hippocampal neurogenesis and eases cognitive and mood dysfunction in a model of gulf war illness. A. K. SHETTY*; V. K. PARIHAR; B. HATTIANGADY; B. SHUAI; X. RAO. *Inst. For Regenerative Med., Central Texas Veterans Hlth. Care Syst., Durham Veterans Affairs Med. Ctr.*

2:00 B6 **608.02** Behavioral consequences of neural stem cell ablation and repeated restraint stress in mice: Possible relevance to neuropsychiatric disorders. C. P. KNIGHT*; A. E. BEAUDRY; L. R. FRYLING; H. M. SWANSON; T. E. KIPPIN. *Univ. of California, Santa Barbara, Univ. of California, Santa Barbara.*

3:00 B7 **608.03** Harnessing adult neurogenesis for therapeutic gain through the enhancement of newborn neuron survival. K. J. CHRISTIE*; A. TURBIC; A. M. TURNLEY. *Univ. of Melbourne.*

4:00 B8 **608.04** The relationship between adult neurogenesis and mood disorder. J. LEE*; W. KIM; W. SUN; D. GEUM. *Korea Univ. Med. school, Korea Univ. medical school.*

1:00 B9 **608.05** ● Oral treatment of resveratrol to aged rats enhances the expression of pro-cognitive and anti-inflammatory genes in the hippocampus and eases cognitive dysfunction. G. SHETTY*; B. HATTIANGADY; B. SHAUI; A. K. SHETTY. *Inst. for Regenerative Medicine, TAMHSC Col. of Med. at Scott & White, Central Texas Veterans Hlth. Care Syst.*

2:00 B10 **608.06** Modulation of GABAA receptor signalling increases activity-dependent hippocampal neurogenesis and suppresses innate anxiety response in adult mice through NFATc4 transcriptional activity. G. QUADRATO*; M. Y. ELNAGGAR; C. DUMAN; A. SABINO; S. DI GIOVANNI. *Hertie Inst.*

3:00 B11 **608.07** Intraperitoneal resveratrol treatment alleviates age-related impairments in spatial memory, mood and hippocampal neurogenesis. M. KODALI*; V. PARIHAR; B. HATTIANGADY; B. SHAUI; A. K. SHETTY. *Texas A&M Hlth. Sci. Ctr. Col. of Med., Central Texas Veterans Hlth. Care Syst., Durham Veterans Affairs Med. Ctr.*

4:00 B12 **608.08** Selective disruption of serotonin uptake transporter in glutamatergic afferents is sufficient to disorganize cortical patterning. X. CHEN; S. JURGENSEN; K. DOBRENIS; P. E. CASTILLO; J. Y. SZE*. *Albert Einstein Coll Med, Yeshiva Univ., Albert Einstein Coll Med, Yeshiva Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 B13 **608.09** Neural stem cell activity in human neurogenic zones in Alzheimer's disease. A. CHOU*; I. R. MACKENZIE; A. J. ROSKAMS. *Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia.*

2:00 B14 **608.10** Neonatal seizures reduce the number hippocampal granule cells generated from a cohort of Gli1-expressing neural progenitors. B. E. HOSFORD*; B. L. MURPHY; S. C. DANZER. *Cincinnati Children's Hosp. Med. Ctr.*

3:00 B15 **608.11** Me-functional magnetic resonance imaging evaluation of visual pathway in experimental rat models with monocular blindness. Z. TANG*. *Eye & ENT Hosp. of Fudan Univ.*

4:00 B16 **608.12** Enhanced neurogenesis in adult circumventricular organs following transient focal ischemic stroke in rat. X. WEI*; R. LIN; J. CAI; S. SCHLEIDT; R. ROSENWASSER; L. IACOVITTI. *Thomas Jefferson Univ., Thomas Jefferson Univ.*

1:00 B17 **608.13** Evidence for neurogenesis by latent parenchymal progenitors after stroke. J. P. MAGNUSSON; C. GÖRITZ; J. TATARISHVILI; Z. KOKAIA; O. LINDVALL; J. FRISEN*. *Karolinska Inst., Lund Univ., Karolinska Inst.*

2:00 B18 **608.14** Alcohol exposure during the rat third trimester-equivalent significantly reduces serotonin mediated signaling in the CA3 hippocampal region. R. A. MORTON*; F. C. VALENZUELA. *Univ. of New Mexico.*

3:00 B19 **608.15** Reproducible and persistent weakness in adult rats after surgical resection of visual cortex. S. KIM*; K. WANG; J. LEE; E. LEE. *Dept. of Neurosurgery, Div. of Pediatric Neurosurgery, Seoul Natl. U.*

POSTER

609. Axon Growth and Guidance: Cytoskeleton

Theme A: Development

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 B20 **609.01** Non-prenylatable RhoA: Effect on neurite outgrowth and activation. J. M. REDDY*; J. A. MCCONNELL; D. L. HYNDS. *Texas Woman's Univ., Texas Woman's Univ.*

2:00 B21 **609.02** The role of a novel actin-localizing kinase, pseudopodium-enriched atypical kinase 1 (PEAK1), in neurite growth. B. M. MARSICK*; H. WANG; J. STRNADEL; T. A. RENO; T. WRIGHT; R. L. KLEMKE. *UCSD.*

3:00 B22 **609.03** Directing axon-dendrite polarity of cultured hippocampal neurons with surface micropatterns. H. YAMAMOTO*; S. KONO; T. DEMURA; M. MORITA; G. BANKER; S. NAKAMURA; T. TANII. *Waseda Univ., Waseda Univ. Grad. Sch. of Fundamental Sci. and Engin., Oregon Hlth. and Sci. Univ., Tokyo Univ. of Agr. and Technol.*

4:00 B23 **609.04** Autophagy regulates early axon growth in differentiated cortical neurons. M. JUN; B. BAN; H. RYU; D. JANG; S. AHMAD; H. KIM; J. LEE*. *Hannam Univ., Kyungpook Natl. Univ., Colby Col., Chungbuk Natl. University,College of Med.*

1:00 B24 **609.05** Role of NOX enzymes in developing cerebellar granule neurons. M. OLGUIN*; J. MORAN. *Univ. Nacional Autonoma De Mexico.*

2:00 B25 **609.06** HspB1 silences translation of PDZ-RhoGEF by enhancing miR20a and miR128 expression to promote neurite extension. X. SUN*; Z. ZHOU; D. J. FINK; M. MATA. *Univ. of Michigan, VA Ann Arbor Hlth. Syst.*

3:00 B26 **609.07** Axon-enriched miR-181d contributes to axonal elongation by targeting MAP1B and Calmodulin. B. WANG*; L. PAN; Q. WANG; W. LIU; X. JIANG; X. ZHANG; L. BAO. *Inst. of Biochem. and Cell Biology, Chinese Acad. of Sci., Natl. Ctr. for Nanoscience and Technol., Inst. of Neurosci. and State Key Lab. of Neuroscience, Inst. for Biol. Sciences, Chinese Acad. of Sci.*

4:00 B27 **609.08** CRMP2 tethers kainate receptor activity to cytoskeleton dynamics during development. J. M. MARQUES*; R. J. RODRIGUES; J. L. ROZAS; S. VALBUENA; S. SELAK; P. MARIN; M. I. ALLER; J. LERMA. *Ctr. For Neurosci. and Cell Biology, Univ. of Coimbra, Inst. de Neurociencias de Alicante CSIC-UMH, Inst. of Functional Genomics, CNRS.*

1:00 B28 **609.09** Shootin1 acts in concert with kif20b to promote polarization of migrating neurons. T. SAPIR*; T. LEVY; A. SAKAKIBARA; T. MIYATA; O. REINER. *The Weizmann Inst., Nagoya Univ. Grad. Sch. of Med.*

2:00 B29 **609.10** Developmental functions of zebrafish kinesin-1 kif5 heavy chains. F. L. MARLOW*; P. D. CAMPBELL. *Albert Einstein Col. of Med., Einstein.*

3:00 B30 **609.11** Identification of potential substrates of Doublecortin-like kinase 1 in axon outgrowth. H. FUJIOKA*; H. KOIZUMI; Y. OKADA; J. G. GLEESON; K. EMOTO. *Nara Inst. of Sci. and Technol., Osaka Biosci. Inst., The Univ. of Tokyo, Quantitative Biol. Ctr. RIKEN, Univ. of California San Diego, Howard Hughes Med. Inst.*

4:00 B31 **609.12** Mechanism of draxin signaling in axonal guidance. R. MELI*. *Max F. Perutz Laboratories, Univ. of Vienna.*

1:00 B32 **609.13** Neuroprotection and cytoskeletal dynamics: A novel mechanism associated with the C-terminal region of teneurin-1 (TCAP-1) is integrated through a dystroglycan-associated, ERK-p90RSK-dependent signaling pathway in the mouse hippocampus. D. CHAND*; L. SONG; D. A. LOVEJOY. *Univ. Of Toronto, Univ. of Toronto.*

2:00 B33 **609.14** Cdk12 and Cdk13 regulate axon elongation through the common signaling pathway that modulates Cdk5 expression. H. CHEN*; G. LIN; M. FANN. *Dept. of Life Sci. and Inst. of Genome Sciences, Natl. Yang-Ming, Inst. of Neuroscience, Natl. Yang-Ming Univ.*

3:00 B34 **609.15** Revealing axonal decision mechanisms using substrate patterning. M. S. SMIRNOV*; H. M. GELLER; J. S. URBACH. *Georgetown Univ., NIH, Georgetown Univ.*

4:00 C1 **609.16** The dynamics of growth cone morphology. G. J. GOODHILL*; R. A. FAVILLE; D. J. SUTHERLAND; A. W. THOMPSON; Z. PUJIC; B. SUN; E. M. KITA; E. K. SCOTT. *The Univ. of Queensland.*

1:00 C2 **609.17** Non-contact electric field stimulation enhances migration and wound healing of neuronal cells. S. LEE*; C. HEO*; S. Y. LEE; Y. H. LEE; M. SUH. *Sungkyunkwan Univ., Sungkyunkwan Univ., Sungkyunkwan Univ.*

POSTER

610. Sensory System Development

Theme A: Development

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 C3 **610.01** Fibroblast Growth Factor 8: Investigating new roles in olfactory bulb development and disease. E. MULLARKEY*; E. GROVE. *Univ. of Chicago.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 C4 **610.02** Effects of perinatal undernutrition on the development of the rat circumvallate papillae. M. G. CARREON*; L. RUBIO; M. REGALADO; C. TORRERO; M. SALAS*. *Natl. Autonomous Univ. of Mexico.*

3:00 C5 **610.03** ▲ Olfactory fibers as a substrate for the growth of GnRH fibers in neonatal opossums? N. L. HOUR; J. PFLIEGER; T. CABANA*. *Univ. de Montreal.*

4:00 C6 **610.04** Transgenerational effects of maternal serotonin transporter genotype on the child´s brain morphology and behavior. N. VAN DER KNAAP*; H. EL MARROUN; F. KLUMPERS; J. R. HOMBERG; T. J. WHITE; H. TIEMEIER; G. FERNÁNDEZ. *Radboud Univ. Nijmegen Med. Ctr., Radboud Univ. Nijmegen Med. Ctr., Erasmus Med. Ctr. - Sophia.*

1:00 C7 **610.05** Recruitment of RET tyrosine kinase adapter proteins plays organ specific roles during development. M. LÜBKE; A. FURLAN; B. ELEUTERI; T. LUNDGREN; M. C. M. FRANCK; Á. ODDSSON; P. ERNFORS*. *Karolinska Institutet.*

2:00 C8 **610.06** Intact thalamocortical target selection in the severely disorganized neocortex of the reeler mouse. R. J. WAGENER*; M. WITTE; J. F. STAIGER. *Inst. for Neuroanatomy - Univ. Med. Goettingen.*

3:00 C9 **610.07** Facial mechanosensory influence on forelimb movement in newborn opossums, Monodelphis domestica. M. DESMARAIS*; T. CABANA; J. PFLIEGER. *Univ. de Montreal.*

4:00 C10 **610.08** Activity-dependent dendritic refinement and cell patterning of barrel cells in the early postnatal mouse somatosensory cortex. W. LUO; H. MIZUNO; S. ITOHARA; T. IWASATO*. *Natl. Inst. of Genet., The Grad. Univ. for Advances Studies (SOKENDAI), RIKEN BSI.*

1:00 C11 **610.09** Identification of Sox2-positive cells in somato-sensory nervous system. T. KOIKE*; T. WAKABAYASHI; T. MORI; Y. HIRAHARA; Y. TAKAMORI; H. YAMADA. *Kansai Med. Univ.*

2:00 C12 **610.10** Cortical interneuron recruitment and maturation in the phospholipase C-beta1 mutant. H. NG*; J. BRITTO; E. LEE; S. TAN. *Florey Instute of Neurosci. and Mental Hlth., Florey Dept. of Neurosci. and Mental Hlth.*

3:00 C13 **610.11** Ret signaling functions in development of inhibitory spinal dorsal interneurons. L. CUI*; W. LUO. *Univ. of Pennsylvania.*

4:00 C14 **610.12** P75 is a co-receptor required for postnatal development of a subset of RET expressing sensory neurons. Z. CHEN*; C. R. DONNELLY; T. SUNG; W. LIN; B. A. PIERCHALA; K. LEE. *Salk Inst., Univ. of Michigan, Salk Inst., UT Southwestern Med. Ctr.*

1:00 C15 **610.13** Prenatal protein level impacts home orientation in Long-Evans rat pups. L. FISCHER; S. E. BRADSHAW; D. EAGLESFIELD; J. MCGAUGHY; D. MOKLER; J. R. GALLER*. *Judge Baker Children's Center, Harvard Med. Sch., Univ. of New Hampshire, Univ. of New England, Judge Baker Children's Ctr., Harvard Med. Sch.*

2:00 C16 **610.14** Motor control, attention control, and mirror neuron systems modulate the mu rhythm: A simultaneous EEG-fMRI study. S. YIN*; Y. LIU; M. DING. *Univ. of Florida.*

3:00 C17 **610.15** Spatiotemporal patterning of limb twitching during active sleep in newborn rats and ErbB2 knockout mice lacking muscle spindles. M. S. BLUMBERG*; C. M. COLEMAN; B. MCMURRAY; A. I. GERTH; J. A. WEINER; B. FRITZSCH. *Univ. of Iowa, Univ. of Iowa.*

4:00 C18 **610.16** Sleep-dependent neural activity in the superior colliculus of newborn rats. A. TIRIAC*; M. S. BLUMBERG. *The Univ. of Iowa.*

1:00 C19 **610.17** Proprioceptive feedback is necessary for the generation of twitch-related spindle bursts during active sleep in newborn mice. A. TADJALLI*; J. A. WEINER; B. FRITZSCH; M. S. BLUMBERG. *Univ. of Iowa, Univ. of Iowa.*

2:00 C20 **610.18** Runx1 and Runx3 are co-expressed in mechanoreceptive neurons in the dorsal root ganglion. M. YOSHIKAWA*; Y. MURAKAMI; K. SENZAKI; T. MASUDA; S. OZAKI; S. AIZAWA; T. SHIGA. *Nihon Univ. Sch. of Med., Univ. of Tsukuba, Dokkyo Med. Univ.*

3:00 C21 **610.19** Primary somatosensory corticostriatal projections avoid EphA7-expressing striatal neurons. A. X. TAI; L. F. KROMER*. *Georgetown Univ. Med. Ctr.*

4:00 C22 **610.20** Exposure to high serotonin levels during development alters the input-output connectivity of cortical networks within the barrel cortex. S. MICELI*; M. NEGWER; M. SELTEN; F. VAN EIJS; C. KALKHOVEN; I. VAN LIEROP; J. HOMBERG; D. SCHUBERT. *Donders Inst. For Brain Cognition and Behaviour.*

1:00 C23 **610.21** Distinct spatial projections to layer 4 from subplate neurons during development. S. VISWANATHAN; A. SHEIKH; L. L. LOOGER; P. O. KANOLD*. *Univ. of Maryland, Howard Hughes Med. Institute, Janelia Farm Res. Campus.*

2:00 C24 **610.22** Roles of subcortical adenylate cyclase 1 for refinement of whisker-barrel circuit in the mouse somatosensory system. A. SUZUKI*; L. LEE; Y. HAYASHI; K. YAGUCHI; P. CHARNAY; R. S. ERZURUMLU; S. ITOHARA; T. IWASATO. *Natl. Inst. of Genet., SOKENDAI, Natl. Taiwan Univ., RIKEN BSI, Ecole Normale Supérieure, Univ. of Maryland.*

3:00 C25 **610.23** MAGUK-associated signalling complex is not required for somatosensory cortex organisation. A. CROCKER-BUQUE*; L. S. WIJETUNGE; M. MARTEL; T. J. RYAN; N. H. KOMIYAMA; D. J. A. WYLLIE; S. G. N. GRANT; G. E. HARDINGHAM; P. C. KIND. *Univ. of Edinburgh, Univ. of Edinburgh, MIT, MIT, Univ. of Edinburgh.*

4:00 C26 **610.24** Expression of neural plasticity and attention in auditory event-related potentials in cohorts aged from 5 to 25 years. L. E. ROBERTS*; S. D. BAYNTON; L. J. TRAINOR. *McMaster Univ., McMaster Univ.*

1:00 C27-DP2 **610.25** Structural transformations of synaptic partners during growth of the calyx of Held. D. R. JACKSON*; M. HOYSON; P. HOLCOMB; B. KELLERMEYER; T. DEERINCK; M. ELLISMAN; G. SPIROU. *West Virginia Univ., West Virginia Univ., UCSD.*

2:00 C28 **610.26** Maternal care regultes auditory development in Wistar rats. A. RODRIGUEZ-CONTRERAS*; S. ADISE; A. SALIU; N. MALDONADO; L. CARDOSO. *CCNY, CUNY, CCNY, CUNY.*

3:00 C29 **610.27** Fingolimod promotes primary sensory afferent growth in developing chicken embryo. M. MCNAMARA*; A. GALVIN; T. CLASON; C. J. FOREHAND. *Univ. of Vermont.*

4:00 C30 **610.28** Spinal miRNA-219 regulates pain behaviors by targeting CaMKIIγ. Z. PAN*; L. ZHU; Y. LI; L. HAO; C. YIN; J. YANG; J. CAO. *Xuzhou Med. Univ., Jiangsu Province Key Lab. of Anesthesiology, Xuzhou Med. Col., Jiangsu Province Key Lab. of Anesthesiology, Xuzhou Med. College, Xuzhou 221002, China.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

611. Transplantation

Theme A: Development

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 C31 **611.01** ● A robust human neural xenograft model for nutrient testing and other bioassays. T. ZHENG*; S. LEE; J. FORTIN; S. K. STRATMAN; F. ZHOU; C. KUANG; Y. XIAO; B. A. REYNOLDS; S. N. ROPER; D. HONDMANN; D. A. STEINDLER. *McKnight Brain Institute, Univ. of FL, Univ. of Florida, Mead Johnson Nutr.*

2:00 C32 **611.02** A temporal and mechanistic analysis of subventricular zone neural stem cell function during aging. K. SMITH*; M. CORENBLUM; L. AMAGASE; L. MADHAVAN. *The Univ. of Arizona, The Univ. of Arizona, The Univ. of Arizona, Univ. of Arizona.*

3:00 C33 **611.03** Human neural stem cell transplantation restores neuronal plasticity in the irradiated hippocampus. M. M. ACHARYA*; S. ROSI; T. JOPSON; C. L. LIMOLI. *Univ. of California Irvine, Univ. of California San Francisco.*

4:00 C34 **611.04** Early intervention with peripherally administered CD34+ umbilical cord stem cells rescues motor deficits in parkinsonian rats. G. C. MIN*; M. CORENBLUM; M. BADOWSKI; D. HARRIS; L. MADHAVAN. *Univ. of Arizona, Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

1:00 D1 **611.05** Optimizing the dose of cyclosporine A for the survival of transplanted human progenitor cells in the brain of a mouse model of Huntington's disease. A. RELAÑO GINÉS*; N. FRANICH; C. ZHU; A. S. LALEHZARIAN; E. TORRES; M. CHESSELET. *David Geffen Sch. of Medicine, Univ. of California, Los Angeles.*

2:00 D2 **611.06** Fate of glial restricted precursor cells in an ischemic model of perinatal white matter injury. A. W. PHILLIPS*; M. PORAMBO; M. A. WILSON; A. COLLIER; K. TERNES; J. MARX; H. ALI; I. SHATS; M. V. PLETNIKOV; J. D. ROTHSTEIN; M. V. JOHNSTON; A. FATEMI. *Kennedy Krieger Inst., Johns Hopkins Med. Inst.*

3:00 D3 **611.07** Neural progenitors derived from mesenchymal stem cells of the first-trimester human placenta induced behavior improvements in an acute ischemia rat model. Y. LEE*; E. KIM; U. KIM; S. KOH; S. PARK; C. HUR; W. LEE; S. MAENG. *Maria Biotech Co., Konkuk Univ., Maria Fertility Hosp., Kyung Hee Univ.*

4:00 D4 **611.08** Transplanted neural stem cells alter microglial activity and induce neuronal depletion in the rodent cortex. T. WEERAKKODY*; H. C. ANDERSON; H. TAKANO; D. A. COULTER; J. H. WOLFE. *Children's Hosp. of Philadelphia, Univ. of Pennsylvania, Univ. of Pennsylvania.*

1:00 D5 **611.09** Human embryonic stem cell-derived neural cells survive and mature in the infarcted cortex of stroked mouse brain. J. ZHU*; J. XU; S. ANDRABIA; T. M. DAWSON; V. L. DAWSON. *Neuroregeneration Programs, Inst. For Cell Engineering, The Johns Hopkins Un, Dept. of Neurology, The Johns Hopkins Univ., Dept. of Neurology, Jinling Hospital, Nanjing Univ. Sch. of Med., Dept. of Physiology, The Johns Hopkins Univ., eSolomon H. Snyder Dept. of Neuroscience, The Johns Hopkins Univ. Sch. of Med., Stem Cell Programs, Inst. for Cell Engineering, The Johns Hopkins Univ. Sch. of Med.*

2:00 D6 **611.10** Human oligodendrocyte progenitor cells transplanted in adulthood, remyelinate both congenitally dysmyelinated and toxically demyelinated mouse brain. S. J. SCHANZ; L. J. ZOU*; D. CHANDLER-MILITELLO; S. WANG; M. S. WINDREM; S. A. GOLDMAN. *Univ. of Rochester, Univ. of Rochester.*

3:00 D7-DP1 **611.11** Chronic two-photon imaging of transplanted embryonic neurons in the cerebral cortex. S. M. FALKNER*; L. DIMOU; T. BONHOEFFER; M. GÖTZ; M. HÜBENER. *Max Planck Inst. of Neurobio., LMU.*

4:00 D8 **611.12** Retinal ganglion cells transplanted *in vivo* exhibit light-evoked responses. P. VENUGOPALAN*; Y. HERTZ; B. QU; K. MULLER; J. GOLDBERG. *Univ. of Miami, UCSD.*

1:00 D9 **611.13** ▲ Mesenchymal stem cell treatment for the Alzheimer's disease. P. BALI*; A. ANAND. *PGIMER, PGIMER.*

2:00 D10 **611.14** *In vivo* comparison of hIPSc and hESCs-derived neurons transplanted into embryonic mouse brains at different time points. M. AMENDUNI*; J. MARIANI; F. M. VACCARINO. *Yale Univ., Yale Univ.*

3:00 D11 **611.15** Generation of Self-organized Central Nervous System -like Tissue from neural progenitor cells is Flk1 dependent. V. BELEGU; A. BENEDICT; B. PAN; J. W. MCDONALD*, III. *Hugo Moser Inst. at Kennedy Krieger Inc, Kennedy Krieger Inst.*

4:00 D12 **611.16** Increased synaptic inhibition following engraftment of GABAergic neural progenitors into the dentate gyrus of mice with temporal lobe epilepsy. J. GUPTA*; M. VAN ZANDT; K. HENDERSON; L. FINN; Y. YANAGAWA; G. B. AARON; J. R. NAEGELE. *Wesleyan Univ., Gunma Univ. Grad. Sch. of Med.*

1:00 D13 **611.17** Breaking bad: Reconstructing dentate circuitry with GABAergic progenitor grafts in mice with temporal lobe epilepsy. K. HENDERSON*; N. WOODS; S. TAGLIATELA; E. PAQUETTE; M. VAN ZANDT; E. SCHNELL; Y. YANAGAWA; G. L. WESTBROOK; J. R. NAEGELE. *Wesleyan Univ., MIT, Oregon Hlth. & Sci. Univ., Gunma Univ. Grad. Sch. of Med.*

2:00 D14 **611.18** Interactions of mouse embryonic stem cell-derived neural progenitors with the host vasculature. C. LASSITER*; S. BECKER; L. GRABEL. *Wesleyan Univ.*

POSTER

612. Non-NMDA Glutamate Receptor Trafficking and Physiology

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 D15 **612.01** A framework of synaptic stability: Mechanisms underlying regulation and maintenance of surface GluA2. T. KIM*; Y. YAMAMOTO; K. TANAKA-YAMAMOTO. *KIST.*

2:00 D16 **612.02** Mechanisms underlying ionotropic glutamate receptor oligomerization. Q. GAN*; C. L. SALUSSOLIA; R. KAZI; H. FURUKAWA; L. P. WOLLMUTH. *Stony Brook Univ., Stony Brook Univ., Cold Spring Harbor Lab.*

3:00 D17 **612.03** Förster Resonance Energy Transfer (FRET) analysis of dual CFP/YFP labeled AMPA receptors reveals structural rearrangement within the C-terminal domain during receptor activation. L. ZACHARIASSEN; M. KATCHAN; A. PLESTED; D. S. PICKERING; A. S. KRISTENSEN*. *Univ. of Copenhagen, Leibniz-Institut für Molekulare Pharmakologie.*

4:00 D18 **612.04** Structure and spatial arrangement of AMPA receptor N-terminal domain heteromers. M. H. HASTINGS*; B. HERGUEDAS; J. GARCIA-NAFRIA; O. CAIS; I. H. GREGER. *Lab. Mol Biol, MRC LMB.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 D19 **612.05** Dynamics of the AMPA receptor proteome along brain regions and postnatal development. J. SCHWENK; A. BRECHET; S. BOUDKKAZI; W. BILDL; A. HAUPT; U. SCHULTE; B. FAKLER*. *Inst. of Physiol., Ctr. for Biol. Signaling Studies.*

2:00 D20 **612.06** Ubiquitination and deubiquitination of AMPA receptors is dynamically controlled by synaptic activity. S. L. SCUDDER*; E. M. RODRIGUES; A. MOLTENI; G. N. PATRICK. *UC San Diego, UC San Diego.*

3:00 D21 **612.07** Analysis of GluK2 ubiquitination. A. MARASCHI; A. CIAMMOLA; V. SILANI; J. SASSONE*. *IRCCS Inst. Auxologico Italiano,, Univ. degli Studi di Milano, Inst. Auxologico Italiano.*

4:00 D22 **612.08** ● Ca^{2+}/calmodulin-dependent kinase II α regulates AMPA receptor membrane distribution in neurons - RNAi research in primary cultured neurons. Q. CHEN*; S. MIYAKE; C. M. WYNN; N. M. WALTON; R. SHIN; J. H. KOGAN; C. L. HEUSNER; A. K. GROSS; K. TAJINDA; K. TAMURA; M. MATSUMOTO. *CNS, Astellas Res. Inst. of America LLC.*

1:00 D23 **612.09** Sigma-1 receptor chaperone interacts with AMPA receptor subunit GluR2 and may play a role in the control of the acetylation of GluR2. Y. YASUI; T. SU*. *NIDA-IRP, NIH.*

2:00 D24 **612.10** PICK1 interacts with PACSIN to regulate AMPA receptor internalization and cerebellar long-term depression. V. ANGGONO*; J. WIDAGDO; A. QUAN; P. J. ROBINSON; D. J. LINDEN; M. PLOMANN; R. L. HUGANIR. *Queensland Brain Institute, The Univ. of Queensland, The Johns Hopkins Univ. Sch. of Med., Queensland Brain Institute, The Univ. of Queensland, The Univ. of Sydney, Univ. of Cologne.*

3:00 D25 **612.11** Molecular determinants for CKAMP44 in AMPA receptors modulation. L. ZHANG*; P. FARROW; J. VON ENGELHARDT; R. SPRENGEL. *Max Planck Inst. For Med. Res., Deutsches Zentrum für Neurodegenerative Erkrankungen e.V. (DZNE).*

4:00 D26 **612.12** Interaction map and regulation of TARP gamma-2 with the GluA2 AMPA receptor. O. CAIS; B. HERGUEDAS; K. KROL; M. FARRANT; S. G. CULL-CANDY; I. H. GREGER*. *MRC LMB, Univ. Col. London.*

1:00 D27 **612.13** Shisa proteins and AMPA receptor function. J. STROEDER*; R. V. KLAASSEN; J. C. LODDER; A. B. SMIT; H. D. MANSVELDER. *Synaptologics, Vrije Univ. Amsterdam, Vrije Univ. Amsterdam.*

2:00 D28 **612.14** Kinetic modelling of homomeric GluA2(R) AMPARs associated with TARP γ-2. I. D. COOMBS*; D. SOTO; M. FARRANT; S. G. CULL-CANDY. *UCL, IDIBELL.*

3:00 D29 **612.15** ● Discovery of new AMPA receptor positive allosteric modulators. S. WARD*; J. ATACK; T. ASKWITH; L. PENNICOTT. *Univ. of Sussex.*

4:00 D30 **612.16** ● Low affinity kainate receptors are involved with motor functions in mouse. I. WATANABE*; K. AKASHI; M. ABE; R. NATSUME; M. WATANABE; K. SAKIMURA. *Dept. of Cell. Neurobio. Basic Neurosci. Br. Brain Res. Ins, Hokkaido Univ. Sch. of Med., CREST, Japan Sci. and Technol. Agency.*

1:00 D31 **612.17** The structural determinants underlying Neto modulation of kainate receptor function. T. N. GRIFFITH*; B. A. COPITS; G. T. SWANSON. *Northwestern Univ.*

2:00 D32 **612.18** Alexa 488 alters the rectification of synaptic currents that are mediated via Ca-permeable AMPA receptors. M. J. MAROTEAUX; I. SAVTCHOUK; J. LIU*. *LSU Hlth. Sci. Ctr., Univ. de Lausanne.*

3:00 D33 **612.19** Insights into the functional organization of AMPA receptors on retinal ganglion cells. K. R. JENSEN*; S. NAWY. *Einstein, Albert Einstein Col. of Med.*

4:00 D34 **612.20** Investigating the mechanism of action of AMPA receptor auxiliary proteins. D. M. MACLEAN*; S. RAMASWAMY; V. JAYARAMAN. *UT- Houston.*

1:00 D35 **612.21** Analyzing cyclothiazide and related positive allosteric modulators on recombinant AMPA receptors and in synaptic plasticity. M. M. HOLM*; G. B. CHRISTIANSEN; K. JENSEN; A. H. GOULIAEV; S. E. HEDE; J. EGEBJERG. *Aarhus Univ., Aarhus Univ., Aarhus Univ., NeuroSearch A/S, H. Lundbeck A/S.*

2:00 D36 **612.22** Protective role of Na/Ka-ATPase against kainate induced GluN2B dependent calcium overload of cortical neurons in primary culture. P. A. ABUSHIK; D. A. SIBAROV; M. J. EATON; S. N. SKATCHKOV; S. M. ANTONOV*. *Sechenov Inst. of Evolutionary Physiol. and Biochem., Saint-Petersburg State Polytechnical Univ., Univ. Central del Caribe, Sch. of Med.*

3:00 D37 **612.23** ACET selectively blocks postsynaptic kainate receptors at the hippocampal mossy fiber synapse. E. SUZUKI*; H. KAMIYA. *Hokkaido Univ. Grad. Sch. of Med.,* JSPS Res. Fellow.

4:00 D38 **612.24** Stargazin regulates AMPAR-mediated currents in the superficial dorsal horn of spinal cord. S. J. SULLIVAN*; M. FARRANT; S. G. CULL-CANDY. *Univ. Col. London.*

1:00 D39 **612.25** Analysis of TARP domains required for AMPA receptor modulation. P. H. HOECKER*; M. HOLLMANN. *Ruhr-University Bochum.*

2:00 D40 **612.26** Identification and characterization of another class of tetraspanins acting as transmembrane AMPA receptor modulatory proteins. S. C. KOESTERS*; M. HOLLMANN. *Ruhr Univ. Bochum.*

3:00 D41 **612.27** Stargazin (TARP γ-2) regulates presynaptic AMPA receptors in cerebellar interneurons. M. RIGBY; S. G. CULL-CANDY*; M. FARRANT. *Univ. Col. London.*

4:00 D42 **612.28** Modulation of AMPA receptors by type II-TARPs. S. P. LEMOS*; M. HOLLMANN. *Ruhr Univ.*

1:00 E1 **612.29** Investigations of accessory proteins modulating glutamate receptor function. S. PAHL*; M. HOLLMANN. *Ruhr Univ. Bochum.*

2:00 E2 **612.30** How do TARPs modulate AMPA receptors? A. L. CARBONE*; A. J. PLESTED. *Leibniz-Institut Für Molekulare Pharmakologie & Neurocure Initiative, Charité.*

POSTER

613. Glycine and Other Ligand Gated Ion Channels

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 E3 **613.01** Gene array study of the mouse PV1-nucleus and of the monkey lateral tuberal nucleus (LTN). G. W. ALBISETTI; V. SZABOLCSI; M. R. CELIO*. *Univ. of Fribourg, Univ. of Fribourg.*

2:00 E4 **613.02** ▲ Glycine receptor clustering and mobility as measured by optical brightness and FRAP. S. MAGO; J. P. DILGER; M. J. EVINGER*; M. J. REBECCHI. *Stony Brook Univ., Stony Brook Univ.*

3:00 E5 **613.03** ▲ Fast decay of glycine receptor currents: Ion accumulation (boring) or receptor clustering (exciting)? M. GUREVICH; J. P. DILGER*. *Stony Brook Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 E6 **613.04** Extracellular cyclic nucleotides accelerate the decay of glycine-induced chloride current in rat hippocampal pyramidal neurons. E. I. SOLNTSEVA*; J. V. BUKANOVA. *Res. Ctr. of Neurology, Rus Acad Med. Sci.*

1:00 E7 **613.05** Positive modulation of α3β glycine receptors is efficacious in animal models of chronic pain and migraine. S. FARKAS*; L. FODOR; A. KIS-VARGA; C. HORVATH; B. FARKAS; K. KORDAS; K. VUKICS; Z. SZOMBATHELYI. *Gedeon Richter Plc.*

2:00 E8 **613.06** Presynaptic homomeric glycine receptors as a primary target in models of familial dominant startle disease. L. ZHANG*; L. HE; L. WU; D. M. LOVINGER; W. XIONG. *NIAAA, NIH, NINDS, NIH.*

3:00 E9 **613.07** A novel startle disease mutation of the glycine receptor α1 subunit disrupts channel function. M. J. WINDLEY*; M. DRWAL; T. M. LEWIS. *Univ. of New South Wales.*

4:00 E10 **613.08** Loop structures of the glycine receptor are highly susceptible for human hyperekplexia mutations. N. SCHAEFER; C. J. KLUCK; N. VORNBERGER; C. VILLMANN*. *Univ. Wuerzburg, Univ. Erlangen-Nuernberg.*

1:00 E11 **613.09** Cdk5 regulates the desensitization of the P2X2a purinergic receptor. C. CODDOU*; E. UTRERAS; A. B. KULKARNI; S. S. STOJILKOVIC. *Catholic Univ. of the North, Univ. de Chile, NIH.*

2:00 E12 **613.10** Relating the effects of anesthetic (related) drugs on macroscopic current characteristics of human serotonin receptors (5-HT3A) to changes in single channel kinetics. K. GROENEVELD*; J. P. DILGER; B. W. URBAN. *SUNY Stony Brook, Uniklinik Bonn.*

3:00 E13 **613.11** Repeated maternal separation in C57BL/6J mice: Changes in hippocampal GABAergic and glutamatergic synaptic function and increased voluntary ethanol consumption. G. TALANI; N. MASALA; V. LICHERI; F. TRUDU; A. A. GORULE; G. BIGGIO; E. SANNA*. *Natl. Res. Council, Univ. Cagliari.*

4:00 E14 **613.12** Identification and characterization of a selective P2X4 receptor channel antagonist. A. R. ASE; N. HONSON; H. ZAGHDANE; T. PFEIFER; P. A. SEGUELA*. *Montreal Neurol. Inst., The Ctr. for Drug Res. and Discovery, McGill Univ.*

1:00 E15 **613.13** The intracellular domain of the P2X7 receptor subunit participates in current facilitation and receptor kinetics. K. MIGITA*; J. YAMADA; Y. NIKAIDO; S. UENO. *Hirosaki Univ. Grad Sch. Med.*

2:00 E16 **613.14** P2RX4-tdTomato BAC transgenic mice for fluorescence guided studies of P2X4 receptor expressing cells in the nervous system. J. XU*; X. LU; W. YANG; B. KHAKH. *Physiology/Ucla, Ucla.*

3:00 E17 **613.15** Probing the role of histidine in the pore of the Cys-loop receptor homologue GLIC. M. A. ALQAZZAZ; M. RIENZO; D. A. DOUGHERTY; S. C. LUMMIS*. *Univ. of Cambridge, CalTech.*

4:00 E18 **613.16** ● The ionotropic 5-HT3 receptor: A sensitive model for pharmacogenomic differences. D. C. BERTRAND*; P. JANSSEN; E. NEVEU; J. DE MAEYER. *Hiqscreen, Shire-Movetis, HiQScreen, Shire-Movetis.*

1:00 E19 **613.17** Binding site organization and subunit stoichiometry in 5-HT_3 receptors probed by unnatural amino acid mutagenesis and fluorescence imaging. T. F. MILES*; K. S. BOWER; H. A. LESTER; D. A. DOUGHERTY. *Caltech, Caltech.*

2:00 E20 **613.18** Regulation of Nogo-A by glutamate receptor activation in hippocampal neurons. R. MURTHY*; X. SUN; D. J. FINK; M. MATA. *Univ. of Michigan.*

3:00 E21 **613.19** Mechanism of action of pinnatoxins E, F and G. S. D. HELLYER; A. I. SELWOOD; L. RHODES; D. KERR*. *Univ. Otago Med. Sch., Cawthron Inst.*

POSTER

614. Metabotropic Glutamate Receptors: Pharmacology and Physiology

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 E22 **614.01** ● Stimulus bias of metabotropic glutamate receptor 5 allosteric modulators - impact on CNS effects and implications for use as therapeutic agents. A. GHOSHAL*; J. M. ROOK; K. A. JOHNSON; X. LV; J. W. DICKERSON; R. L. LAMBERT COLLIER; P. N. VINSON; S. R. STAUFFER; C. K. JONES; C. M. NISWENDER; C. W. LINDSLEY; Z. XIANG; P. J. CONN. *Vanderbilt Univ. Med. Ctr.*

2:00 E23 **614.02** ● Development and characterization of a selective, CNS-penetrant metabotropic glutamate receptor 3 (mGlu3) negative allosteric modulator (NAM). C. J. WENTHUR*; R. D. MORRISON; A. G. WALKER; J. S. DANIELS; P. J. CONN; C. W. LINDSLEY. *Vanderbilt Univ.*

3:00 E24 **614.03** ● Novel negative allosteric modulators reveal a role of metabotropic glutamate receptor 3 ($mGlu_3$) in long-term depression in medial prefrontal cortex: Implications for cognition. A. G. WALKER*; C. J. WENTHUR; Z. XIANG; R. D. MORRISON; F. W. BYERS; J. S. DANIELS; C. W. LINDSLEY; P. J. CONN. *Vanderbilt Univ. Med. Ctr.*

4:00 E25 **614.04** ● Receptor dimerization changes the ability of $mGlu_4$ positive allosteric modulators to potentiate L-AP4 induced responses. M. NOETZEL*; S. YIN; R. ZAMORANO; K. A. JOHNSON; P. J. CONN; C. M. NISWENDER. *Vanderbilt Univ.*

1:00 E26 **614.05** ● Positive allosteric modulators of metabotropic glutamate receptor 5 modulate Akt and GSK3β signaling *in vivo*. K. A. JOHNSON*; P. CONN. *Vanderbilt Univ.*

2:00 E27 **614.06** ● Allosteric modulators of muscarinic acetylcholine and metabotropic glutamatergic receptors as promising therapeutic strategies for cognition enhancement in Alzheimer's disease. J. M. ROOK*; A. G. WALKER; Q. HUAN; S. R. STAUFFER; C. M. NISWENDER; J. S. DANIELS; C. K. JONES; C. W. LINDSLEY; P. J. CONN. *Vanderbilt Univ. Med. Ctr.*

3:00 E28 **614.07** ● Discovery and pharmacology of a potent, selective and orally bioavailable positive allosteric modulator of metabotropic glutamate receptor subtype 5 (mGlu5). L. W. HARDY*; M. L. R. HEFFERNAN; F. WU; L. SARASWAT; M. QUINTON; U. CAMPBELL; R. LEW; K. SPEAR; K. KOBLAN; T. LARGE. *Sunovion Pharmaceuticals Inc., Sunovion Pharmaceuticals Inc.*

4:00 E29 **614.08** Potentiation of nociceptive responses of thalamic neurones by a metabotropic glutamate receptor (mGlu1) positive allosteric modulator (PAM). T. E. SALT*; C. S. COPELAND; H. E. JONES; I. M. ANDOLINA; A. M. SILLITO. *UCL Inst. Ophthalmology.*

1:00 E30 **614.09** Metabotropic glutamate receptors 1 and 5 function in a mutually dependent manner when co-expressed in neurons. T. SEVASTYANOVA*. *Univ. of Rochester.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 E31 **614.10** Stress granules formation and cell survival are differently modulated by group-I metabotropic glutamate receptor activation in wild type and fmr1 knockout astrocytes. B. DI MARCO; P. DELL'ALBANI; M. SPATUZZA; C. M. BONACCORSO; S. D'ANTONI; F. DRAGO*; M. CATANIA. *PhD program in Neuropharmacology, Univ. of Catania, Inst. of Neurolog. Sciences, CNR, IRRCCS Oasi Maria SS, Dept of Clin. Exp. Biomedicine, Univ. Catania, IRRCCS Oasi Maria SS.*

3:00 E32 **614.11** Surface dynamics of mGlu5 receptors in a mouse model of fragile X syndrome. E. ALOISI*; M. SPATUZZA; S. D'ANTONI; F. DRAGO; M. V. CATANIA; A. FRICK. *Neurocentre Magendie INSERM U862, Univ. Bordeaux 2, Inst. of Neurolog. Sciences, Natl. Res. Council (CNR), Dept. of Clin. and Mol. Biomedicine, Univ. of Catania, Sch. of Med.*

4:00 E33 **614.12** STIM1 controls mGluR1-dependent synaptic transmission and cerebellar motor behavior. J. HARTMANN*; R. M. KARL; H. ADELSBERGER; M. S. BRILL; C. RÜHLMANN; A. ANSEL; K. SAKIMURA; Y. BABA; T. KUROSAKI; T. MISGELD; A. KONNERTH. *TUM, Inst. For Neurosci., TUM, Chair for Biomolecular Sensors, Niigata University, Brain Res. Inst., Osaka University, Immunol. Frontier Res. Ctr.*

1:00 E34 **614.13** Group II metabotropic glutamate (mGlu) receptor modulation of thalamic sensory processing via astrocyte activation. C. S. COPELAND*; H. R. PARRI; S. A. NEALE; T. E. SALT. *Univ. Col. London, Aston Univ.*

2:00 E35 **614.14** Spotlight on mGluR7 in the thalamo-cortical network. V. TASSIN*; B. GIRARD; L. FAGNI; F. BERTASO. *Inst. De Génomique Fonctionnelle.*

3:00 E36 **614.15** Activation of mGlu1 metabotropic glutamate receptors causes a long-lasting improvement of motor symptoms in a mouse model of type-1 spinocerebellar ataxia (SCA1). S. NOTARTOMASO*; C. ZAPPULLA; M. CANNELLA; F. BIAGIONI; D. BUCCI; F. FAZIO; P. SCARSELLI; M. MOTOLESE; L. LIONETTO; M. SIMMACO; R. GRADINI; S. GATTI; G. BATTAGLIA; V. BRUNO; F. NICOLETTI. *I.R.C.C.S. Neuromed, St. Andrea Hosp., Univ. of Rome "Sapienza", Hoffman LaRoche, Univ. Sapienza.*

4:00 E37 **614.16** Inhibition of the group I mGluRs reduces acute brain damage and improves long-term histological outcomes after photothrombosis-induced ischemia. H. LI*; N. ZHANG; G. SUN; S. DING. *Univ. of Missouri, Univ. of Missouri.*

1:00 E38 **614.17** Protective activity of cinnabarinic acid against experimental autoimmune encephalomyelitis in mice. F. FAZIO; C. ZAPPULLA; S. NOTARTOMASO; P. SCARSELLI; G. BATTAGLIA; V. BRUNO*; L. LIONETTO; M. SIMMACO; F. NICOLETTI; C. VACCA; M. GARGARO; M. BELLADONNA; F. FALLARINO. *I.R.C.C.S. Neuromed, Univ. Sapienza, Azienda Ospedale S. Andrea, Univ. of Perugia.*

2:00 E39 **614.18** L-acetylcarnitine induces a long-lasting analgesic effect after withdrawal in animal models of chronic inflammatory and neuropathic pain. C. ZAPPULLA*; S. NOTARTOMASO; M. BERNABUCCI; A. TRABUCCO; M. MOTOLESE; M. CANNELLA; F. WEISZ; F. FAZIO; R. GRADINI; V. BRUNO; G. BATTAGLIA; F. NICOLETTI. *I.R.C.C.S. Neuromed, Univ. Sapienza, Univ. Sapienza.*

3:00 E40 **614.19** Metabotropic glutamate receptor antagonist, MCPG at different doses affect social and motor behavior in zebrafish. Z. MATEO*; P. COLÓN; R. LEÓN; B. VELÁZQUEZ. *Pontifical Catholic Univ. of Puerto Rico.*

4:00 E41 **614.20** The Xc- activator N-acetylcysteine inhibits nociceptive responses in humans. A. TRUINI; S. PIROSO; G. DI STEFANO; S. NOTARTOMASO; C. ZAPPULLA; F. WEISZ; E. PASQUALE; R. LATTANZI; L. NEGRI; G. BATTAGLIA*; F. NICOLETTI; G. CRUCCU. *Univ. Sapienza, I.R.C.C.S. Neuromed, Univ. Sapienza.*

1:00 E42 **614.21** Altered expression of Rab-GDI in a mouse model of schizophrenia. R. ORLANDO; M. MOTOLESE; A. CARUSO; S. SCACCIANOCE; F. MATRISCIANO; G. MOLINARO; F. WEISZ; L. DI NUZZO; P. DI PIETRO*; M. BORRO; M. SIMMACO; R. NISTICÒ; F. NICOLETTI. *I.R.C.C.S. Associazione Oasi Maria SS, I.R.C.C.S. Neuromed, Univ. Sapienza, I.R.C.C.S. Ctr. Neurolesi Bonino Pulejo, Univ. Sapienza.*

2:00 E43 **614.22** Reduced levels of xanthurenic acid in the blood of schizophrenic patients. M. CURTO; L. LIONETTO; F. NAPOLETANO; G. VIGNAROLI; M. CAPI; V. CORIGLIANO; A. COMPARELLI; L. IACOVELLI; V. BRUNO; G. BATTAGLIA; M. SIMMACO; F. NICOLETTI*; F. FAZIO. *St. Andrea Hosp., St. Andrea Hosp., Univ. Sapienza, I.R.C.C.S. Neuromed.*

POSTER

615. Modulation of Neuronal Firing II

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 E44 **615.01** Differential properties of mouse cortico-PAG and cortico-amygdala neurons in prelimbic and infralimbic cortex. A. N. FERREIRA; S. E. DALTON; G. M. G. SHEPHERD; P. L. SHEETS*. *Univ. of Notre Dame, Northwestern Univ., Indiana Univ. Sch. of Medicine-South Bend.*

2:00 E45 **615.02** Gain control via shunting inhibition in spiking model of leech local bending. E. P. FRADY*; W. B. KRISTAN, Jr. *UCSD, UCSD.*

3:00 E46 **615.03** Electrophysiological properties and potassium channels in subtypes of layer 5 neocortical pyramidal neurons. R. C. FOEHRING*; D. GUAN. *Univ. Tennessee Hlth. Sci.*

4:00 E47 **615.04** Multidiscriminant analysis of physiological and integrative properties of BNST neurons. A. SZÜCS*; E. CATALDO; F. BERTON; P. P. SANNA; W. FRANCESCONI. *UCSD, Univ. of Pisa, The Scripps Res. Inst.*

1:00 E48 **615.05** Selective NPY Y2 receptor activation enhances synchronous perisomatic GABA IPSCs in Basolateral Amygdala principal neurons while decreasing distal dendritic GABA input. J. P. MACKAY*; H. SILVEIRA VILLARROEL; J. H. URBAN; W. F. COLMERS. *Universty of Alberta, Univ. of Alberta, Chicago Med. School, Rosalind Franklin Univ.*

2:00 E49 **615.06** Synaptic mechanisms for bursting in dopaminergic neurons *in vivo.* A. KUZNETSOV; C. C. LAPISH; M. MAMELI; B. S. GUTKIN*. *Indiana Univ. Purdue Univ. at Indianapolis, Indiana Univ. Purdue Univ. Indianapolis, Inst. du Fer a Moulin, Group For Neural Theory, LNC INSERM U960, Ecole Normale Superieure.*

3:00 E50 **615.07** Alterations in hippocampal interneuron function in epileptic Kcna1-null mice. C. N. GAVRILOVICI*; Z. W. ZHANG; J. M. RHO. *Univ. of Calgary, Univ. of Calgary.*

4:00 E51 **615.08** Excitability and ambient glutamate in the cochlear nucleus. Y. YANG; M. A. XU-FRIEDMAN*. *SUNY Buffalo.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 E52 **615.09** Evidence for physiological heterogeneity among projection cells in the brainstem nucleus locus coeruleus. D. J. CHANDLER*; W. GAO; B. D. WATERHOUSE. *Drexel Univ. Col. of Med.*

2:00 E53 **615.10** NeuroElectro: A literature-based brain wide analysis of the electrophysiological diversity of mammalian neuron types. S. J. TRIPATHY*; R. C. GERKIN; S. D. BURTON; M. A. GERAMITA; S. CHANDRASEKARAN; A. H. GITTIS; N. N. URBAN. *Carnegie Mellon Univ., Carnegie Mellon Univ., Univ. of Pittsburgh.*

3:00 E54 **615.11** Nitric oxide volume transmission mediates a novel homeostatic mechanism in cortical networks. Y. SWEENEY; J. HELLGREN KOTALESKI; M. H. HENNIG*. *Edinburgh Univ., Royal Inst. of Technol.*

4:00 F1 **615.12** ▲ Dorsoventral differences in neuromodulation of dentate gyrus granule cells. P. MATEOS-APARICIO*; J. F. STORM. *Inst. of Basic Med. Sci. (IMB), Univ. of Oslo.*

1:00 F2 **615.13** Organotypic basolateral amygdala slice cultures: A model for stress-related circuitry. S. D. MICHAELSON*; J. H. URBAN; W. F. COLMERS. *Univ. of Alberta, Chicago Med. School, Rosalind Franklin Univ.*

2:00 F3 **615.14** Developmental profile of D2/D4 receptor modulation of evoked firing of pyramidal neurons in mPFC. S. C. BARRETT*; J. CHANDLER; H. TRANTHAM-DAVIDSON. *Med. Univ. of South Carolina.*

3:00 F4 **615.15** The effects of early life peripheral immune challenge on basolateral amygdala functioning. A. SZUBRA*; Q. PITTMAN. *Univ. of Calgary.*

4:00 F5 **615.16** The responsiveness of knee extensor motoneurons to different fatigue tasks in humans. C. J. MCNEIL*; D. S. KENNEDY; J. E. BUTLER; S. C. GANDEVIA; J. L. TAYLOR. *The Univ. of British Columbia, Neurosci. Res. Australia.*

1:00 F6 **615.17** Correlations in ion channel expression emerge from homeostatic regulation mechanisms. T. O'LEARY*; A. H. WILLIAMS; J. S. CAPLAN; E. MARDER. *Volen Ctr. For Complex Systems, Brandeis Univ.*

2:00 F7 **615.18** The characteristics of action potentials in Primo-vessels and the effects of acetylcholine injection. S. CHO*; J. LIM; S. YEON; O. KWON; K. CHOI; S. CHOI; Y. RYU. *Korea Inst. of Oriental Med., Advance Inst. of Convergence Technology, Seoul Natl. Univ.*

3:00 F8 **615.19** Prolonged inhibition of network activity reduces input resistance by alteration of I_h and I_k conductance in cerebellar cultured slices. H. SHIM; S. JANG; J. KIM*; S. KIM. *Seoul Natl. Univ. Col. Med.*

4:00 F9 **615.20** A census of tectal neuron electrophysiological properties and their modulation across development and as a result of plasticity. C. M. CIARLEGLIO*; A. S. KHAKHALIN; C. D. AIZENMAN. *Brown Univ.*

1:00 F10 **615.21** Neurons in bat entorhinal cortex show an inverse gradient of resonance frequency compared to neurons in rat entorhinal cortex. J. G. HEYS*; K. M. MACLEOD; C. F. MOSS; M. E. HASSELMO. *Boston Univ., Univ. of Maryland - Col. Park, Univ. of Maryland - Col. Park, Boston Univ.*

2:00 F11 **615.22** A novel model for bursting in midbrain dopamine neurons. N. YU; K. QIAN; C. C. CANAVIER*. *Louisiana State Univ. Hlth. Sci. Ctr., Louisiana State Univ. Hlth. Sci. Ctr., Louisiana State Univ. Hlth. Sci. Ctr., Louisiana State Univ. Hlth. Sci. Ctr.*

3:00 F12 **615.23** Enhanced intrinsic excitability in basket cells maintains excitatory-inhibitory balance in hippocampal circuits. C. GASSELIN*; E. CAMPANAC; A. BAUDE; S. RAMA; N. ANKRI; D. DEBANNE. *INSERM U1072, Aix-Marseille Univ., CNRS UMR6231, INSERM U901.*

4:00 F13 **615.24** Synaptic and intrinsic plasticity in Purkinje cells. Z. YANG; F. SANTAMARIA*. *Univ. of Texas at San Antonio, Univ. Texas San Antonio.*

1:00 F14 **615.25** Subcellular cooperativity and ectopic spiking in demyelinated axon models and thalamocortical circuits. J. S. COGGAN*; M. CERINA; K. GÖBEL; T. J. SEJNOWSKI; S. G. MEUTH; S. A. PRESCOTT. *Neurolinx Res. Inst., Univ. of Muenster, The Salk Inst., Univ. of Toronto.*

2:00 F15 **615.26** GABA withdrawal syndrome: Cortical hyperexcitability and behavior differences between in male and female brain rats. E. CALIXTO*; A. HERNANDEZ; A. PIMENTEL; J. GALVEZ; R. FERNANDEZ MAS; O. GALICIA; C. CASASOLA; C. CRUZ; C. LEMINI. *Inst. Nac de Psiquiatria Ramon de la Fuente, Inst. Nac de Psiquiatria Ramon de la Fuente, Inst. Nac de Psiquiatria Ramon de la Fuente, Univ. Iberoamericana, Fac. Psicologia, UNAM, Inst. Nac de Psiquiatria Ramon de la Fuente, Facultad de Medicina.*

3:00 F16 **615.27** Role of low-threshold burst firing of thalamocortical neurons in sleep oscillations. E. CHEONG*; J. LEE; K. LEE; K. SONG; H. SHIN. *Yonsei Univ., Korea Inst. of Sci. and Technol., Inst. for Basic Sci.*

4:00 F17 **615.28** Effects of anticonvulsants on compound action potentials in the frog sciatic nerve: Comparison with those of local anesthetics. Y. UEMURA; T. FUJITA; S. OHTSUBO; A. MATSUSHITA; C. JIANG; K. MIZUTA*; E. KUMAMOTO. *Dept Physiol, Facult Med, Saga Univ., Dept Anesth, Facult Med, Saga Univ., RIKEN Brain Sci. Inst. - Wako.*

1:00 F18 **615.29** Dynamic analysis of the minimal requirements for intrinsic rhythmic burst firing in thalamocortical neurons. Y. AMARILLO; M. S. NADAL*. *Fisica Estadistica e Interdisciplinaria, Fisica Estadistica E Interdisciplinaria.*

2:00 F19 **615.30** Serine phosphorylation modulates Ih in hippocampal neurons. A. D. WILLIAMS*; S. JUNG; N. P. POOLOS. *Univ. of Washington, Univ. of Washington.*

3:00 F20 **615.31** Inhibition by various aroma-oil chemicals of compound action potentials in the frog sciatic nerve. S. OHTSUBO; A. MATSUSHITA; T. FUJITA; H. KAWASAKI; C. JIANG; Q. LUO; Q. KANG; S. MASUKO*; E. KUMAMOTO. *Dept. Physiol., Saga Med. Sch., Saga Med. Sch.*

POSTER

616. Glia-Neuron Interactions: *In vivo* Approaches

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 F21 **616.01** Non-neuronal modulation of the excitation/inhibition balance in the Caenorhabditis elegans locomotion circuit. S. J. CHERRA*, III; Y. JIN. *Univ. of California San Diego, Univ. of California San Diego, Howard Hughes Med. Inst.*

2:00 F22-DP3 **616.02** Utilizing four-channel two-photon laser scanning microscopy to investigate glioma-astrocyte-vascular interactions in the cortex of live mice. I. KIMBROUGH*; H. SONTHEIMER. *Univ. of Alabama At Birmingham.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 F23 **616.03** IQGAP1 as a novel marker of hypometabolised neurons after an excitotoxic lesion in the mouse hippocampus. M. YI*; S. CHO; E. ZHANG; J. PARK; D. KIM. *Chungnam Natl. Univ. Sch. of Medicine/Department of Anat., Dept. of Anesthesiol. and Pain Med., Dept. of Physiology, Brain Res. Institute, Chungnam Natl. Univ. Sch.*

4:00 F24 **616.04** ● Astrocytes regulate synaptic information in visual cortex. G. PEREA*; A. YANG; E. S. BOYDEN; M. SUR. *Picower Inst. For Learning and Memory, Media Lab. MIT, McGovern Inst. for Brain Research. MIT.*

1:00 F25 **616.05** *In vivo* role of astrocytes in cortical synchronization. K. POSKANZER*; R. YUSTE. *Columbia Univ.*

2:00 F26 **616.06** Cortical spreading depression triggered by selective activation of astrocytes. S. M. BACA*; R. T. JONES; K. CHEN; C. J. K. DIETZ; M. SOFRONIEW; I. MODY; A. CHARLES. *UCLA.*

3:00 F27 **616.07** Astrocytic Gs-coupled receptor signaling promotes memory loss. A. G. ORR*; E. C. HSIAO; M. M. WANG; K. HO; X. WANG; D. H. KIM; N. DEVIDZE; D. B. DUBAL; B. R. CONKLIN; L. MUCKE. *Gladstone Inst. of Neurolog. Dis., Univ. of California, Univ. of California, Univ. of California, Gladstone Inst. of Cardiovasc. Dis., Univ. of California.*

4:00 F28 **616.08** Transgenic mouse lines for optical activation of Gq-coupled receptors in astrocytes. Y. IWAI*; K. OZAWA; K. YAHAGI; T. NAGAI; K. YAGUCHI; M. TANAKA; S. ITOHARA; H. HIRASE. *RIKEN Brain Sci. Inst.*

1:00 F29 **616.09** Manipulating astrocytic motility in a living mouse brain. D. MOLOTKOV*; M. KISLIN; S. ZOBOVA; L. KHIROUG. *Neurosci. Center, Univ. of Helsinki.*

2:00 F30 **616.10** Activation of the STAT3 pathway in reactive astrocytes: a common feature in several neurodegenerative disease models. L. BEN HAIM*; M. CARRILLO-DE SAUVAGE; F. AUBRY; M. GUILLERMIER; G. AUREGAN; D. HOUITTE; E. FAIVRE; L. FRANCELLE; M. DHENAIN; E. BROUILLET; G. BONVENTO; C. ESCARTIN. *CEA, DSV, I²BM, MIRCen, LMN and CNRS URA2210.*

3:00 F31 **616.11** ● ▲ Regulation of N-cadherin/catenin complex by ephrin-B/EphB2 signaling in Schwann cells. L. CHIKOBAVA; P. YOUNG*; B. GESS. *Univ. of Muenster.*

4:00 F32 **616.12** Leptin resistance induced by high calorie diet enhances tau pathology and glial activation in a tauopathy mouse model. S. KOGA; Y. YOSHIYAMA*. *Chiba Univ. Sch. of Med., Chiba East Natl. Hosp.*

1:00 F33 **616.13** Astrocyte calcium signaling in neurovascular coupling in the olfactory bulb glomerulus. K. A. COUCHMAN*; Y. OTSU; D. LYONS; M. COLLOT; J. MALLET; S. CHARPAK. *INSERM U603, Neurophysiol. & New Microscopies Laboratory, Univ. Paris Descartes, UPMC Univ. Paris 6, CNRS UMR 7203, Lab. of Biomolecules.*

2:00 F34 **616.14** Disruption of myelin homeostasis impairs motor learning. R. AKIYOSHI*; H. WAKE; D. KATO; Y. H. TANAKA; Y. MASAMIZU; R. HIRA; Y. R. TANAKA; F. OHKUBO; P. R. LEE; R. D. FIELDS; J. NABEKURA; M. MATSUZAKI. *Natl. Inst. For Physiological Sci., Natl. Inst. for Basic Biol., The Grad. Sch. for Advanced Study, NIH, Japan Sci. and Technol. Agency.*

3:00 F35 **616.15** Peripheral nerve injury-induced spinal glial proliferation involved in conditioning-induced regeneration after spinal cord injury. H. LIU*; I. SHUBAYEV; J. DOLKAS; V. SHUBAYEV. *UC San Diego, VA San Diego Healthcare Syst.*

4:00 F36 **616.16** Causal role of astrocyte calcium-dependent cortical synapse remodeling in neuropathic mechanical allodynia in mice. S. KIM*; T. ISHIKAWA; S. KOIZUMI; J. NABEKURA. *Kyung Hee Univ. Col. of Oriental Med., Natl. Inst. for Physiological Sci., Japan Sci. and Technol. Agency, The Grad. Sch. for Advanced Study, Yamanashi University, Fac. of Med.*

1:00 F37 **616.17** The neuronal TNF receptor 2 is important for the inhibition of cortical spreading depolarization (CSD) by the proinflammatory cytokine TNFα in adult rat. F. RICHTER; W. LÜTZ; J. LEUCHTWEIS; A. EITNER; A. LEHMENKUHLER*; H. SCHAIBLE. *Univ. Hosp. Jena, Pain Inst.*

2:00 F38 **616.18** BALB/c, C57/BL6 and CBA mice: Characterisation of the behavioural and thermoregulatory response in a new population of MDMA (ecstasy) users. J. J. GORDON*; M. R. HUTCHINSON; R. J. IRVINE; A. SALEM. *Univ. of Adelaide, Univ. of Adelaide.*

POSTER

617. Human Disease: Biomarkers

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 F39 **617.01** Functional and structural representation of cognitive restructuring. C. SUTOH*; D. MATSUZAWA; Y. HIRANO; M. YAMADA; S. NAGAOKA; D. ISHII; S. MATSUDA; H. TOMIZAWA; H. ITO; H. TSUJI; T. OBATA; E. SHIMIZU. *Grad. Sch. of Medicine, Chiba Univ., Natl. Inst. of Radiological Sci., Kisarazu Hosp., Res. Fellow of the Japan Society for the Promotion of Sci.*

2:00 F40 **617.02** Investigation of visual processing deficits in body dysmorphic disorder using EEG. W. LI*; T. M. LAI; S. LOO; M. STROBER; J. FEUSNER. *UCLA, UCLA.*

3:00 F41 **617.03** Automated functional parcellation and meta-analytic decoding of fmri data with neurosynth. L. CHANG*; C. WOO; T. YARKONI. *Univ. of Colorado, Univ. of Colorado.*

4:00 F42 **617.04** Mixed approach to emotion assessment. S. VALENZI*; T. ISLAM; A. CICHOCKI. *RIKEN BSI.*

1:00 F43 **617.05** Altered insula activity for visceral interoception in individuals with anorexia nervosa. K. L. KERR*; J. A. AVERY; J. C. BARCALOW; J. BODURKA; S. E. MOSEMAN; N. L. ZUCKER; W. K. SIMMONS. *Univ. of Tulsa, Laureate Inst. for Brain Res., Univ. of Oklahoma, Laureate Psychiatric Clinics and Hosp., Sch. of Medicine, Duke Univ.*

2:00 F44 **617.06** ▲ Investigation of fear generalization with fmri using multivariate pattern similarity analysis. S. ONAT*; C. BÜCHEL. *Dept. of Systems Neuroscience, Univ. Med. Ctr. Hamburg-Eppendorf.*

3:00 F45 **617.07** Body-mass index, brain-derived neurotrophic factor val66met, and prefrontal cortex thickness. E. L. BROWNING*; S. SHOLLENBARGER; J. WIESER; J. STRONG; K. M. LISDAHL. *Univ. of Wisconsin - Milwaukee, Univ. of Wisconsin-Milwaukee, Univ. of Cincinnati.*

4:00 F46 **617.08** Exposure to damaged body picture suppresses hemodynamic response in the dorsolateral prefrontal cortex: A NIRS study. Y. TSUNODA*; K. ESAKI; N. NOTSUYU; T. ARII; K. KIMOTO; Y. ONO. *Meiji Univ., Kanagawa Dent. Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

618. Animal Models: Tau

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G1 **618.01** ● Targeting the tau-fyn interaction in Alzheimer's disease. J. COCHRAN*; M. NEBANE-AKAH; L. RASMUSSEN; E. L. WHITE; J. A. MADDRY; M. J. SUTO; E. D. ROBERSON. *Univ. of Alabama at Birmingham, Southern Res. Inst.*

2:00 G2 **618.02** ● ▲ Pseudophosphorylation of tau at MARK sites increases the tau-fyn interaction. P. V. DIGGS*; J. N. COCHRAN; E. D. ROBERSON. *Univ. of Alabama at Birmingham.*

3:00 G3 **618.03** ▲ Modeling Alzheimer's tauopathy: Adult-onset, focal tauopathy in entorhinal cortex impairs short-term synaptic plasticity of the perforant path in rat. C. L. FORD*, IV; K. L. SWART; M. A. KING; R. L. KLEIN; J. J. RAMIREZ. *Davidson Col., Davidson Col., Univ. of Florida, Malcom Randall VA Med. Ctr., Louisiana State Univ. Hlth. Sci. Ctr.*

4:00 G4 **618.04** ● Characterisation of neuropathology, synaptic protein expression and electrophysiological deficits in the rTg4510 mouse model of tauopathy. S. M. FITZJOHN*; R. G. VIVIER; K. GARN; E. MCNAUGHTON; M. V. KOPANITSA; C. CELLA; J. MCARTHUR; T. K. MURRAY; M. A. WARD; S. G. N. GRANT; M. L. HUTTON; M. J. O'NEILL; J. T. ISAAC. *Eli Lilly & Co., Synome Ltd.*

1:00 G5 **618.05** ● Characterisation of three lines of transgenic mice expressing pathology relevant to Alzheimer's disease using touchscreens: Performance of PDAPP, TASTPM and rTg4510 mice on the acquisition of spatial and visual discriminations. A. J. HARPER*; S. BILLA; S. POTTS; J. C. RICHARDSON; T. K. MURRAY; M. J. O'NEILL; M. HUTTON; S. L. DIX. *Eli Lilly Co. Ltd, GlaxoSmithKline & Co. Ltd.*

2:00 G6 **618.06** ● *In vivo* two-photon imaging of progressive synapse loss in the rTg4510 tauopathy model. J. S. JACKSON*; Z. AHMED; E. MCNAUGHTON; M. HUTTON; M. C. ASHBY; M. J. O'NEILL; J. T. ISAAC. *Lilly UK, Univ. of Bristol.*

3:00 G7 **618.07** ● Tau immunoreactivity and hippocampal size in a transgenic mouse model of human tauopathy (rTg4510) correlates with cognitive performance in a spatial working memory task. S. DIX*; M. M. ALBASSER; M. A. WARD; E. F. MCNAUGHTON; T. K. MURRAY; M. L. HUTTON; M. J. ONEILL; K. G. PHILLIPS. *Eli Lilly & Co. Limited.*

4:00 G8 **618.08** Comparisons between multiple tau-directed antibodies administered to the rTg4510 mouse Model of Tauopathy. S. K. SCHROEDER*; A. JOLY-AMADO; J. TORELLO; M. N. GORDON, PhD; D. MORGAN. *Univ. of South Florida, Tampa.*

1:00 G9 **618.09** Tau pathology does not affect visual experience-driven Arc/Arg3.1 responses in rTg4510 mouse model of Alzheimer's disease. N. RUDINSKIY*; J. M. HAWKES; S. WEGMANN; R. A. BETENSKY; R. PITSTICK; G. A. CARLSON; T. L. SPIRES-JONES; B. T. HYMAN. *Massachusetts Gen. Hosp., Harvard Sch. of Publ. Hlth., McLaughlin Res. Inst.*

2:00 G10 **618.10** ● Passive immunization with anti-tau antibodies reduces tau pathology and improves functional deficits in two mouse models of tauopathy. S. SANKARANARAYANAN*; D. BARTEN; L. VANA; N. DEVIDZE; G. CADELINA; B. ZHANG; N. HOQUE; M. NITLA; L. YANG; L. DECARR; A. LIN; S. KEENAN; B. SNYDER; G. HIRSCHFIELD; N. BARREZUETTA; C. POLSON; V. S. RANGAN; A. CACACE; C. F. ALBRIGHT; J. Q. TROJANOWSKI; V. M. LEE; K. BRUNDEN; M. AHLIJANIAN. *Bristol-Myers Squibb, Univ. of Pennsylvania, Bristol-Myers Squibb.*

3:00 G11 **618.11** Intracerebroventricular administration of anti-tau antibodies reduces pathology in P301S tau transgenic mice. K. YANAMANDRA*; N. KFOURY; H. JIANG; T. E. MAHAN; S. MALONEY; D. WOZNIAK; M. I. DIAMOND; D. M. HOLTZMAN. *Washington Univ. Sch. of Med., Hope Ctr. for Neurolog. Disorders, Knight-Alzheimer's Dis. Res. Ctr., Washington Univ. Sch. of Med.*

4:00 G12 **618.12** Investigating the effect of tau pathology in a neuronal model of tauopathies. D. KESTORAS*; M. MELLONE; M. GOEDERT; A. M. TOLKOVSKY; M. G. SPILLANTINI. *Univ. of Cambridge.*

1:00 G13 **618.13** ● Assessment and characterisation of tau propagation *in vivo:* Comparison of P301S and hTau transgenic mice as model systems. J. COOPER; Z. AHMED; K. GARN; T. K. MURRAY; E. MCNAUGHTON; H. CLARKE; M. A. WARD; S. PARHIZKAR; A. CAVALLINI; S. BOSE; M. GOEDERT; M. L. HUTTON; M. J. ONEILL*. *Eli Lilly & Co. Ltd., MRC Lab. of Mol. Biol., Eli Lilly & Co. Ltd.*

2:00 G14 **618.14** ● Cause or coincidence? A longitudinal study of caspase-cleaved and conformationally-changed tau in the rTg4510 model of tauopathy and Alzheimer's disease brain. J. WOLAK*; K. GARN; Y. GIBSON; D. BALLARD; D. G. HALL; M. WARD; E. MCNAUGHTON; Z. AHMED; S. GLOVER; M. L. HUTTON; M. J. O'NEILL. *Eli Lilly, Eli Lilly.*

3:00 G15 **618.15** Reduced adult neurogenesis is an early and robust alteration observed in a mouse model of tauopathy. Y. KOMURO*; B. T. LAMB. *Lerner Res. Inst. Cleveland Clin. Fndtn.*

4:00 G16 **618.16** GABAergic interneuron loss in a mouse model for tau pathology associates with dysregulated synaptic plasticity and behavior. G. J. LEVENGA*; P. KRISHNAMURTHY; H. RAJAMOHAMED SAIT; P. CAIN; E. M. SIGURDSSON; C. A. HOEFFER. *New York University, Sch. of Med., Excelsior Col.*

1:00 G17 **618.17** The use of a novel Tau antibody to assess disease progression in the rTg4510 mouse model of tauopathy. S. M. WARD*; D. HIMMELSTEIN; Y. FU; Y. RAN; X. YU; K. ROBERTS; L. BINDER; N. SAHARA. *Northwestern Univ., Northwestern Univ., Univ. of Florida.*

2:00 G18 **618.18** A non-human primate model of Alzheimer's disease with tangles and synapse loss triggered by Abeta oligomers. N. D. SILVA*; L. FORNY-GERMANO; A. F. BATISTA; J. BRITO-MOREIRA; L. MAGNO-JUNIOR; A. LABLANS; W. KLEIN; M. GRALLE; J. C. HOUZEL; S. T. FERREIRA; D. MUNOZ; F. G. DE FELICE. *Federal Univ. of Rio de Janeiro, Federal Univ. of Rio de Janeiro, Queen's Univ., Northwestern Univ., Federal Univ. of Rio de Janeiro, Federal Univ. of Rio de Janeiro, Federal Univ. of Rio de Janeiro, Rio de Janeiro.*

3:00 G19 **618.19** GSK signaling pathway is associated with hyperphosphorylation of tau epitopes in the brain of an AD mouse model. A. JOSEPH*; H. IM; F. MUSARRAT; T. MAMIYA; L. YANG; J. ZABALETA; S. SISODIA; Y. TANG. *LSUHSC, Univ. of Chicago, Louisiana Cancer Res. Ctr., Univ. of Chicago.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 G20 **618.20** Depression of reelin secretion from GABAergic neurons in the septal area of P301L tau transgenic mice. J. KIM; S. KIM*; H. SUH-KIM; Y. LEE. *Ajou Univ. Sch. of Med., Ctr. for Cell Death-Regulating Biodrug, Ajou Univ. Sch. of Med.*

1:00 G21 **618.21** Overexpression of Arginase-1 in the CNS mitigates tau pathology in rTg4510 tau transgenic mice. J. B. HUNT, Jr.; K. NASH; D. PLACIDES; P. MORAN; S. RODRIGEZ-OSPINA; M. SAVLIA; P. REID; C. G. YANG; M. SELENICA; M. GORDON; D. MORGAN; D. C. LEE*. *USF Byrd Alzheimer's Inst., USF Byrd Alzheimer's Inst.*

2:00 G22 **618.22** ● Lanthionine ketimine improves cognition and reduces late-stage pathology in the 3xTg-AD mouse. M. E. HARRIS-WHITE*; K. HENSLEY; M. JOHNSON; P. ESLAMI; K. VENKOVA-HRISTOVA; A. HRISTOV; F. P. ZEMLAN; S. P. GABBITA. *UCLA & Veterans Administration-Greater Los Angeles, Univ. of Toledo, P2D Biosciences, Inc.*

3:00 G23 **618.23** ● Examining the role of the peripheral immune system in Tau neuropathology. W. CHEN*; T. LIM; J. NERHUS; L. BUEE; M. BLURTON-JONES. *Univ. of California Irvine, Inst. de Me´decine Pre´dictive et Recherche The´rapeutique, Universite´ Lille.*

4:00 G24 **618.24** A longitudinal behavioural characterization of the 3xTg-AD mouse model of Alzheimer's disease. K. R. STOVER*; M. E. HICKS; K. M. GORDON; D. E. IKPI; R. E. BROWN. *Dalhousie Univ.*

1:00 G25 **618.25** ● Cholesterol in Tau pathology. M. J. BURLOT*; J. BRAUDEAU; S. AYCIRIEX; J. VARIN; B. GAUTIER; F. DJELTI; L. DAUPHINOT; L. TROQUIER; N. ZOMMER; R. CAILLIEREZ; L. PRADIER; O. LAPRÉVOTE; I. BIÈCHE; N. AUZEIL; M. POTIER; P. AUBOURG; L. BUÉE; D. BLUM; N. CARTIER. *INSERM UMR 986 / MIRCen, Univ. Paris Descartes, Chimie-Toxicologie Analytique et Cellulaire, EA 4463, Univ. Paris Descartes, Sorbonne Paris Cité, Faculté des Sci. Pharmaceutiques et Biologiques, INSERM U745, Ctr. de Recherche de l'Institut du Cerveau et de Moelle Epinière, CNRS UMR7225, INSERM UMRS 975, UPMC, ICM, Hôpital Pitié-Salpêtrière, Univ. Lille-Nord, Inserm U837, Jean-Pierre Aubert Res. Ctr., Sanofi-Aventis, Therapeut. Strategy Unit Aging.*

2:00 G26 **618.26** ● Spatial memory impairment is associated with aberrant *in vivo* hippocampal neurophysiology in a transgenic mouse model of tauopathy. J. WITTON*; A. D. RANDALL; M. W. JONES; J. T. BROWN. *Univ. of Bristol, Univ. of Exeter.*

3:00 G27 **618.27** ▲ Examining the effect of calpain proteolysis in neurodegenerative disease. K. J. WIEBER*; D. N. TAIT; M. L. STEINHILB. *Central Michigan Univ.*

4:00 G28 **618.28** Okadaic acid as animal model of dementia: Influences on spacial memory and glial aspects. N. B. CUNHA*; F. HANSEN; G. BROLESE; C. BATASSINI; M. DUTRA; F. LIRIO; R. SILVESTRIN; C. GONÇALVES. *UFRGS.*

POSTER

619. Alzheimer's Disease: Tau Biology

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G29 **619.01** ● 14-3-3 binding to Tau causes tubulin instability and impairs axon development: Structural basis and functional consequences of 14-3-3/Tau interaction. Y. JOO*; K. CHANG; S. LEE; Y. SUH; C. OTTMANN. *Col. of Medicine, Seoul Natl. Univ., Gachon University, Grad. Sch. of Med., Boramae Med. Ctr., Korea Brain Res. Inst., Max-Planck-Society.*

2:00 G30 **619.02** Phos-tag SDS-PAGE analysis of Tau phosphorylation *in vitro* and in brains. T. KIMURA*; T. HOSOKAWA; H. FUKUSHIMA; M. MASUDA-SUZUKAKE; H. HATSUTA; T. SAITO; S. MURAYAMA; M. HASEGAWA; S. HISANAGA. *Tokyo Metropolitan Univ., Tokyo Metropolitan Inst. of Med. Sci., Tokyo Metropolitan Inst. of Gerontology.*

3:00 G31 **619.03** Aβ oligomer toxicity is mediated through Tau dependent microtubule severing by spastin. H. ZEMPEL*; J. LUEDTKE; Y. KUMAR; E. MANDELKOW; J. BIERNAT; E. MANDELKOW. *DZNE, German Ctr. for Neurodegenerative Dis., MPI for Neurolog. Research, Hamburg Outstation.*

4:00 G32 **619.04** Development of neurofibrillary tangles in the rat brain following AAV-mediated gene transfer of wild type or mutant forms of Tau. K. CAMBON*; M. D'ORANGE; A. BEMELMANS; G. AUREGAN; C. JOSÉPHINE; N. DUFOUR; M. GAILLARD; M. COLIN; L. BUÉE; E. BROUILLET; P. HANTRAYE. *CEA- MIRCEN, Inserm U387.*

1:00 G33 **619.05** Declining protein quality control in tauopathy can be rescued by stimulation of proteasome activity leading to reduced tau burden and improved cognitive performance *in vivo*. N. MYEKU*; N. V. KUKUSHKIN; C. L. CLELLAND; Y. H. FIGUEROA; M. HERMAN; W. YU; A. L. GOLDBERG; K. E. DUFF. *Columbia Univ., Harvard Med. Sch., Dept. of Psychiatry, New York State Psychiatric Inst.*

2:00 G34 **619.06** Investigation of constitutive CD40 signaling of tau post translation modifications. M. TWEED*; Z. ZAKIROVA; C. VOLMAR; J. FRIELING; M. MULLAN; M. MULLAN; G. AIT-GHEZALA. *Roskamp Inst., James A. Haley Veterans' Hosp., Hussman Inst. for Human Genomics, Ctr. for Therapeut. Innovation (CTI) Univ. of Miami Miller Sch. of Med., H. Lee Moffitt Cancer Ctr. and Res. Institute,.*

3:00 G35 **619.07** ● Hit-to-lead development of small molecule inhibitors of tau oligomer formation using cell models. G. PAPIANI; P. LOPEZ; J. HENDRIX; E. DAVIDOWITZ; J. G. MOE*. *OLIGOMERIX, Inc.*

4:00 G36 **619.08** Quantifying dementia: A novel mass spectrometry based assay to quantify Tau and its post-translational modification landscape. W. MAIR*; J. MUNTEL; H. STEEN; W. W. SEELEY; J. A. J. STEEN. *Boston Children's Hosp., Boston Children's Hosp., Harvard Med. Sch., Boston Children's Hosp., Univ. of California.*

1:00 G37 **619.09** ● Regulation of tau phosphorylation is independant of PP2AC methylation state in anesthesia-induced hypothermia. J. R. JENSEN; M. FARKALY; W. J. JESSEN; E. EBERLE; R. L. MARTONE*. *Covance Discovery & Translational Services, Covance Informatics, Covance, Inc.*

2:00 G38 **619.10** Neurofibrillary tangles remain functionally integrated in cortical networks. K. KUCHIBHOTLA*; S. WEGMANN; T. SPIRES-JONES; B. J. BASCKAI; B. T. HYMAN. *NYU Sch. of Med., Harvard Med. Sch.*

3:00 G39 **619.11** Perforant path contributes to CRF receptor-dependent tau hyperphosphorylation induced by stress in murine hippocampus. D. ROTLLANT*; L. A. TAN; C. ARIAS; P. E. SAWCHENKO. *Salk Inst. For Biol. Studies.*

4:00 G40 **619.12** Friend or foe : EFhd2 a protein associated to tau in neurodegeneration. E. N. RODRÍGUEZ CRUZ*; A. S. LAUREANO RODRIGUEZ; S. S. SERRANO; J. A. BALLESTER; C. L. CAMACHO MERCADO; I. E. VEGA. *Univ. of Puerto Rico, Univ. of Puerto Rico.*

1:00 G41 **619.13** The role of MyD88 on the inflammation-induced Alzheimer's disease tau pathology. N. MAPHIS; Z. KANG; X. LI; B. LAMB; K. BHASKAR*. *Univ. of New Mexico, Cleveland Clin., Cleveland Clin.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 G42 **619.14** The mechanism increase of age-dependent tau phosphorylations in chronic type 2 diabetes. Y. KIM; S. PARK*; J. IM; H. JUNG. *Soonchunhyang Univ. Bucheon Hosp.*

3:00 G43 **619.15** Serine/threonine-protein kinase CHK1 associates with Alzheimer neurofibrillary tangles. H. PAN; Y. SONODA; H. MUKAI; M. TAKAHASHI; K. MAEDA; O. YASUHARA*; H. AKIYAMA; T. KAWAMATA. *Kobe Univ. Grad. Sch. of Hlth. Sci., Shiga Univ. of Med. Sci. Hosp., Biosignal Res. Center, Kobe Univ., Kobe-Gakuin Univ., The Univ. of Shiga Prefecture, Tokyo Metropolitan Inst. of Med. Sci.*

4:00 G44 **619.16** Association of neuronal polypyrimidine tract binding protein with neurofibrillary tangles in Alzheimer brain tissues. Y. ITO; H. PAN; Y. SONODA; H. MUKAI; M. TAKAHASHI; K. MAEDA; H. AKIYAMA; N. YOSHIMURA; T. KAWAMATA*. *Kobe Univ. Grad. Sch. of Hlth. Sci., Shiga Univ. of Med. Sci. Hosp., Biosignal Res. Center, Kobe Univ., Kobe-Gakuin Univ., Tokyo Metropolitan Inst. of Med. Sci., Kyoto Univ., Kobe Univ. Grad Sch. Hlth. Sci.*

1:00 G45 **619.17** Identification of potent inhibitors of microtubule affinity regulating kinase, a key kinase involved in tau hyperphosphorylation in Alzheimer's disease. J. BROWNLEES*; M. NEWMAN; A. LEVY; G. KING; D. HARDING; J. OSBORNE; S. LEWIS; K. GILLEN; M. AMBLER; N. MISTRY; E. MCIVER; S. QURAISHE; A. MUDHER; C. KETTLEBOROUGH; A. MERRITT; D. TAYLOR. *MRC Technol., Univ. of Southampton.*

2:00 G46 **619.18** ● Characteristics of PHF-specific tau phosphorylation status by functional protein complexes associated with microtubules *in vitro.* M. HASHIGUCHI*; T. HASHIGUCHI. *Tokyo Med. Univ., Kuretake Col. of Med. Arts and Sci.*

3:00 G47 **619.19** The facilitating role of tau in amyloid beta induced mitochondrial dysfunction and kainic acid induced excitotoxicity. S. M. PRITCHARD*; A. L. COOK; G. V. W. JOHNSON. *Univ. of Rochester Sch. of Med. and Dent., Boston Col., Univ. of Rochester.*

4:00 G48 **619.20** Trans-synaptic transfer of human WT Tau, involvement of vesicular pathways. S. DUJARDIN; R. CAILLIEREZ; N. ZOMMER; S. BEGARD; L. DELATTRE; A. LOYENS; G. AUREGAN; J. WINDERICKX; S. SCHRAEN-MASCHE; M. GALAS; N. DEGLON; E. BROUILLET; P. M. HANTRAYE*; L. BUEE; M. COLIN. *INSERM UMR837, JPARC & Fac of Med., Mircen, Functional Biology, KU Leuven, Lausanne Univ. Hospital, Lab. of Cell & Mol Neurotherapies.*

1:00 G49 **619.21** ● Tau internalization and toxicity depends upon the tau species and can be prevented by tau-oligomer specific antibodies. J. GERSON*; U. SENGUPTA; D. CASTILLO-CARRANZA; R. KAYED. *Univ. of Texas Med. Br.*

2:00 G50 **619.22** Does Aβ1-40 protect against pathological tau phosphorylation? X. HU*; X. LI; M. ZHAO; A. GOTTESDIENER; S. PAUL. *Weill Cornell Med. Col., Rockefeller Univ., Weill Cornell Med. Col.*

3:00 G51 **619.23** ● A novel non-carbohydrate o-linked beta-n-acetylglucosaminidase inhibitor increases tau o-glcnacylation *in vivo.* C. WIESSNER*; D. GRAHAM; A. GRAY; B. GIACOMOZZI; J. JOYCE; V. SHANKAR; M. BUSCH; A. CAMERON; L. LIU-BUJALSKI; H. YU; H. TIAN; S. OUSSON; A. QUATTROPANI; B. PERMANNE; M. SHEARMAN; D. BEHER; H. HERING. *Asceneuron S.A., EMD Serono Res. and Develop. Inst., Merck KGaA.*

4:00 G52 **619.24** Identification and characterization of new truncated-Tau species. M. DERISBOURG*; G. CHIAPPETTA; F. FERNANDEZ-GOMEZ; C. LAURENT; D. DEMEYER; S. EDDARKAOUI; S. BEGARD; S. SCHRAEN-MASCHKE; M. COLIN; V. BUÉE-SCHERRER; N. SERGEANT; D. BLUM; J. VINH; Y. VERDIER; L. BUÉE; M. HAMDANE. *Jparc, ESPCI.*

1:00 G53 **619.25** Characterization of the oligomeric form of tau. D. S. HIMMELSTEIN*; S. WARD; Y. FU; L. BINDER. *Northwestern Univ.*

2:00 G54 **619.26** ▲ Characterization of a tauopathy model in Dictyostelium discoidium. A. ERWIN*; K. MILLER; C. DAMER; M. STEINHILB. *Central Michigan Univ.*

3:00 G55 **619.27** *In vitro study suggests a pathway connecting Aβ and tau.* Y. YOSHIIKE*. *NCGG CAMD.*

4:00 G56 **619.28** N-methyl-D-aspartare reduces tau phosphorylation by targeting glycogen synthase kinase-3 and proteine kinase c activities. A. DE MONTIGNY; I. ELHIRI; M. LAURIER-LAURIN; J. ALLYSON; G. MASSICOTTE*. *Univ. Quebec a Trois-Rivieres, Univ. Quebec A Trois-Rivieres.*

POSTER

620. Abeta Treatments and Metabolism

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 G57 **620.01** Acute serotonin induced reduction in amyloid-beta is dependent on protein kinase A signaling *in vivo.* J. R. FISHER*; J. R. CIRRITO. *Washington Univ. Div. of Biol. and Biomed. Sci.*

2:00 G58 **620.02** ● Early passive vaccination targeting pyroglutamate-3 Aβ reduces total cerebral plaque burden without microhemorrhage and partially protects against cognitive deficits in APP/PS1dE9 mice. J. L. FROST*; B. LIU; H. CYNIS; M. KLEINSCHMIDT; B. O'NUALLAIN; K. X. LE; B. J. CALDARONE; S. SCHILLING; H. DEMUTH; C. A. LEMERE. *Brigham & Women's Hosp., Harvard Med. Sch., Probiodrug AG, Harvard NeuroDiscovery NeuroBehavior Lab.*

3:00 G59 **620.03** Effect of muscarinic acetylcholine signaling in amyloid-beta generation *in vivo.* J. BURCHETT*, III; J. R. CIRRITO. *Washington Univ., Hope Ctr. for Neurolog. Dis., Knight Alzheimer's Dis. Res. Ctr., Washington Univ.*

4:00 G60 **620.04** Role of LRP1 and ATP-binding cassette transporters in efflux of amyloid-β at the human blood-brain barrier. Y. SANO*; K. SAITO; F. SHIMIZU; H. HARUKI; T. KANDA. *Yamaguchi Univ. Grad. Sch. of Med., Tokyo Med. and Dent. Univ.*

1:00 H1 **620.05** Synaptic and cognitive improvements by inhibition of monoacylglycerol lipase are through upregulation of the miRNA targeting BACE1 in Alzheimer's disease. C. CHEN*; J. ZHANG; Z. TENG. *LSU Hlth. Sci. Ctr.*

2:00 H2 **620.06** ● Role of NMDA receptor signaling in amyloid-beta generation. J. HETTINGER*; J. R. CIRRITO. *Washington Univ., Hope Ctr. for Neurolog. Disorders, Knight Alzheimer's Dis. Res. Ctr.*

3:00 H3 **620.07** Endolysosomal cholesterol sequestration affects amyloid precursor protein metabolism. M. MAULIK; K. PEAKE; J. VANCE; D. WESTAWAY; S. KAR*. *Univ. Alberta, Univ. Alberta, Univ. Alberta, Univ. Alberta.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 H4 **620.08** ● Pyroglutamate Abeta generated by Glutaminyl Cyclase (QC) enforces aggregation and toxicity of general Abeta - inhibitors of this enzyme attenuating neurodegeneration in AD Models are now at Clinical Stage. H. U. DEMUTH*; S. F. SCHILLING; H. CYNIS; U. HEISER; A. ALEXANDRU; A. BECKER; W. JAGLA; S. GRAUBNER. *Probiodrug AG, Ingenium GmbH.*

1:00 H5 **620.09** Precuneus amyloid and tau pathology during the progression of AD. S. E. PEREZ*; E. ABRAHAMSON; M. IKONOMOVIC; E. J. MUFSON. *Rush Univ. Med. Ctr., Sch. of Med.*

2:00 H6 **620.10** Intranasal immunization with anti-aß mab 3a1 prevent cerebral presynaptic deficits 5xfad mice. J. MEHLA; V. SAVCHENKO; B. O'NUALLAIN; N. B. CHAUHAN*; C. LEMERE. *Jesse Brown VA Med. Center; Univ. Illinois Chicago, Brigham and Women's Hospital, Harvard Med. Sch.*

3:00 H7 **620.11** Amyloid oligomers contain the Tn antigen, an abnormal glycoprotein structure in Alzheimer's disease. P. LALEZARI; S. LALEZARI; R. LEKHRAJ; D. CASPER*. *Montefiore Med. Ctr. and the Albert Einstein Col. of Med., Montefiore Med. Ctr. and the Albert Einstein Col. of Med.*

4:00 H8 **620.12** Microglia clearance of injected amyloid beta in zebrafish larvae. P. KETTUNEN*; S. STRAND; C. ANDERSSON. *Univ. of Gothenburg.*

1:00 H9 **620.13** Brain pericytes internalize and clear amyloid-β through LRP1-dependent pathway. Q. MA*; Z. ZHAO; M. WANG; A. SAGARE; B. ZLOKOVIC. *USC.*

2:00 H10 **620.14** Reducing β-amyloid production by Lycoris chejuensis via decreasing β-amyloid precursor protein. H. OH*; Y. PARK; Y. CHO; J. KIM; S. CHUNG; H. YANG. *Sungkyunkwan Univ. Sch. of Med., Natural Med. Center, Korea Inst. of Sci. and Technol.*

3:00 H11 **620.15** Identification of intracellular signal pathway of somatostatin-induced neprilysin activity. N. KAKIYA*; T. SAITO; P. NILSSON; T. C. SAIDO. *RIKEN Brain Sci. Inst.*

4:00 H12 **620.16** ● CNS exposure and effect of anti-amyloid-beta antibodies following device-mediated continuous low-dose intracerebroventricular delivery: Potential for Alzheimer's disease passive immunotherapy. L. M. JUNGBAUER*; K. HAYES; B. KELLEY; C. ROEGGE; T. KEENE; L. SHAFER; D. THAKKER. *Medtronic, Inc.*

1:00 H13 **620.17** Contributions of degradation and brain-to-blood elimination to cerebral clearance of human amyloid-β peptide(1-40) in mouse brain. S. ITO*; S. OHTSUKI; K. MATSUMIYA; S. MURATA; Y. KATSUKURA; J. KAMIIE; T. TERASAKI. *Kumamoto Univ., Tohoku Univ., SORST, Azabu Univ.*

2:00 H14 **620.18** The role of PICALM in vascular clearance of amyloid-beta. K. KISLER*; E. A. WINKLER; Z. ZHAO; Q. MA; A. P. SAGARE; B. V. ZLOKOVIC. *Keck Sch. of Med. of the Univ. of Southern California, Keck Sch. of Med. of the Univ. of Southern California.*

3:00 H15 **620.19** Octyl gallate promotes anti-amyloidogenic processing of APP through estrogen receptor-mediated ADAM10 activation. D. SAWMILLER*; S. ZHANG; K. REZAI-ZADEH; H. HOU; J. EHRHART; D. SHYTLE; S. ZHOU; B. GIUNTA; T. MORI; J. TAN. *Univ. of South Florida Med. Sch., James A Haley Veteran's Admin. Hosp., Univ. of South Florida Med. Sch., Univ. of South Florida Med. Sch., Saitama Med. Ctr. and Univ.*

4:00 H16 **620.20** Toward prevention of cerebral β-amyloidosis by inactivation of Aβ seeds. S. K. FRITSCHI*; L. YE; U. OBERMUELLER; S. A. KAESER; Y. S. EISELE; M. STAUFENBIEL; M. JUCKER. *Hertie Inst. For Clin. Brain Research, Univ. of Tuebingen, DZNE, German Ctr. for Neurodegenerative Dis., Grad. Sch. of Cell. and Mol. Neurosci.*

1:00 H17 **620.21** The NMDA receptor antagonist radiprodil reverses the synaptotoxic effects of different amyloid-beta (Aß) species on long-term potentiation (LTP). G. RAMMES*; K. MATTUSCH; L. HAAS; M. KUMMER; M. HENEKA; C. G. PARSONS. *Clin. Rechts der Isar, Max-Planck-Institute of Psychiatry, Klinikum rechts der Isar, Univ. of Bonn, Merz Pharmaceuticals.*

POSTER

621. Tau and Non-Alzheimer's Dementia

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 H18 **621.01** G3BP1 protects against pathological tau-induced neurotoxicity. K. L. YOUMANS*; M. L. A. MEDALLA; T. VANDERWEYDE; J. L. LUEBKE; B. L. WOLOZIN. *Boston Univ. Sch. of Med., Boston Univ. Sch. of Med.*

2:00 H19 **621.02** Sensitivity to neurotoxic stress is not increased in progranulin-deficient mice. B. LEAVITT*; T. L. PETKAU; S. ZHU; G. LU; S. FERNANDO; P. WAGNER; M. CYNADER. *Ctr. For Mol. Med. & Therapeut., UBC, UBC.*

3:00 H20 **621.03** Neuronal trafficking defects in a CHMP2B mutation model of FTD. E. CLAYTON*; S. MIZIELINSKA; A. M. ISAACS. *UCL.*

4:00 H21 **621.04** New criteria for frontotemporal dementia syndromes impact most on language variants. L. CHARE*; J. R. HODGES; C. MCGINLEY; R. H. TAN; J. J. KRIL; G. M. HALLIDAY. *Neurosci. Res. Australia, Univ. of New South Wales, The Univ. of Sydney.*

1:00 H22 **621.05** The RNA binding protein TIA-1 increases tau misfolding and neurotoxicity *in vitro.* T. E. VANDERWEYDE*; A. CITRO; C. N. COOK; V. GOWDA; A. LIN; L. PETRUCELLI; K. DUFF; B. WOLOZIN. *Boston Univ. Sch. of Med., Mayo Clin., Columbia Univ. Med. Ctr., Boston Univ. Sch. of Med.*

2:00 H23 **621.06** Investigating the cis-acting regulation of TMEM106B, the risk gene for frontotemporal dementia. M. D. GALLAGHER*; C. D. BROWN; A. S. CHEN-PLOTKIN. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

3:00 H24 **621.07** *In vitro* phosphorylation of the novel tau-associated protein EFhd2 by Cdk5. E. F. VAZQUEZ-ROSA*; E. N. RODRIGUEZ-CRUZ; L. RODRIGUEZ-LAUREANO; S. SERRANO; T. J. RIOS-FULLER; J. SEO; L. TSAI; I. E. VEGA. *Univ. of Puerto Rico, Rio Piedras Campus, Univ. Metropolitana, MIT.*

4:00 H25 **621.08** GSK3 directly phosphorylates dynein and regulates retrograde organelle transport. F. GAO*; L. SHI; X. GAO; D. SMITH. *Univ. of South Carolina, Univ. of South Carolina.*

1:00 H26 **621.09** ▲ Social coordination limitations impact language comprehension in behavioral-variant frontotemporal dementia. S. N. GOLOB*; G. S. R. PORCARI; N. SPOTORNO; R. CLARK; M. GROSSMAN; C. MCMILLAN. *Univ. of Pennsylvania.*

2:00 H27 **621.10** Frontotemporal dementia mutations in mapt cause chromosome mis-segregation and aneuploidy, including trisomy 21. H. POTTER*; A. GRANIC; J. CANEUS; D. DICKSON. *Alzheimer's Dis. Programs Dept. of Neurology/Linda Crnic Inst., Mayo Clin.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 H28 **621.11** ▲ Coordinating on the oddball in behavioral variant frontotemporal dementia. G. S. PORCARI*; S. N. GOLOB; N. SPOTORNO; R. CLARK; M. GROSSMAN; C. T. MCMILLAN. *Perelman Sch. of Medicine, Univ. of Pennsylvania, Univ. of Pennsylvania.*

POSTER

622. Parkinson's Disease: Rodent Models and Behavior

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 H29 **622.01** The NMDA antagonist MK-801 worsens dopamine 1-receptor-induced abnormal involuntary movements in a preclinical model. A. J. FLORES*; N. D. LAUDE; K. L. PARENT; M. L. HEIEN; S. J. SHERMAN; T. FALK. *Univ. of Arizona, Univ. of Arizona, Univ. of Arizona.*

2:00 H30 **622.02** Parkinsonian tremor in middle aged rats: Effects of chronic vs. acute cholinergic activation. N. E. PAUL*; R. R. RENNER; E. J. MARKUS. *Univ. of Connecticut.*

3:00 H31 **622.03** Motor behavior tuning as a function of stimulation frequency in the 6-ohda rat model of gpi-deep brain stimulation. S. R. SUMMERSON*; B. AAZHANG; C. T. KEMERE. *Rice Univ., Baylor Col. of Med.*

4:00 H32 **622.04** Effects of acute 1-methyl-4-1,2,3,6,-tetrahydropyridine (MPTP)-treated mice on nociceptive behavior. J. W. PARK*; B. KAANG. *Seoul Natl. Univ., Seoul Natl. Univ.*

1:00 H33 **622.05** Cognitive and motor impairments induced by a bilateral 6-OHDA lesion into the striatum of the rat. D. J. VIRLEY*; E. ESNEAULT; A. HERNIER; C. GOMBERT; V. CASTAGNE. *PORSOLT, PORSOLT.*

2:00 H34 **622.06** Neurodegeneration of the locus coeruleus induces hyperalgesia in Sprague Dawley rats. J. C. TOUCHETTE*; G. WILKEN; D. SALVEMINI; H. MACARTHUR. *St. Louis Univ.*

3:00 H35 **622.07** Dissociating motor impairments and motor map dysfunction in two different rodent models of Parkinson's disease. E. K. PLOWMAN; B. RIVERA; J. TIPTON; S. C. FOWLER; R. D. FRISINA*; J. A. KLEIM. *Univ. of South Florida, Kansas Univ., Univ. of South Florida, Arizona State Univ.*

4:00 H36 **622.08** Place conditioning to apomorphine in rat models of Parkinson's disease. J. C. CAMPBELL*; D. S. SHIN; J. G. PILITSIS. *Albany Med. Col., Albany Med. Ctr.*

1:00 I1 **622.09** A novel rat model of pre-diagnosis cognitive symptoms in Parkinson's disease. A. TRUONG; K. J. OTTO*. *Purdue Univ., Purdue Univ.*

2:00 I2 **622.10** Behavioral and electrophysiological assessment of a rotenone-induced rat model of Parkinson's disease. K. SCHWABE*; M. ALAM; N. POLASCHECK; J. KRAUSS; C. VON WRANGEL. *Neurosurg.*

3:00 I3 **622.11** Overexpression of striatal pre-enkephalin and the improvement of motor behavior in a mouse model of Parkinson's disease. S. MURATOT; S. BISSONNETTE; C. ROUILLARD*; S. S. HEBERT; P. SAMADI. *Univ. Laval.*

4:00 I4 **622.12** Simultaneous quantitative eeg, microdialysis and behavior in unilaterally 6-hydroxydopamine lesioned rats reveal distinct changes in neurotransmitters that are linked to disruptions in sleep. V. VOGEL*; L. YU; H. KOOIJKER; Y. CHANG; F. HELFRICH; M. VAN DER HART; I. VEINBERGS; G. FLIK; A. RASSOULPOUR. *Brains Online LLC, Brains Online LLC.*

1:00 I5 **622.13** ▲ Effects of dopamine receptor agonist, cabergoline or rotigotine on tremulous jaw movements induced by acetylcholinesterase inhibitor, tacrine. G. KOGANEMARU; H. ABE*; A. KURAMASHI; K. EBIHARA; H. MATSUO; H. FUNAHASHI; K. YASUDA; T. IKEDA; R. TAKEDA; T. NISHIMORI; Y. ISHIDA. *Div. of Psychiatry, Dept. of Clin. Neuroscience, Univ. of Miyazaki, Div. of Neurobiology, Univ. of Miyazaki.*

2:00 I6 **622.14** Tremulous jaw movements induced by the anticholinesterase galantamine: Studies with a mouse model of parkinsonian tremor. S. J. PODURGIEL*; T. SPENCER; R. KOVNER; L. LOPEZ-CRUZ; M. PARDO; Y. BAQI; C. MÜLLER; M. CORREA; J. SALAMONE. *Univ. of Connecticut, Univ. Jaume I, Univ. Bonn.*

3:00 I7 **622.15** Influence of paraquat and recent prior social defeat stress in IL-6 deficient mice: Focus on behavioral and hippocampal processes. C. A. RUDYK*; D. LITTELJOHN; N. RUSTOM; G. GILMORE; G. CROWE; S. HAYLEY. *Carleton Univ.*

4:00 I8 **622.16** The role of beta band oscillatory activity in Parkinsonian blink abnormalities. J. KAMINER*; P. THAKUR; C. EVINGER. *SUNY Stony Brook, SUNY Stony Brook.*

1:00 I9 **622.17** Preclinical and clinical resources for Parkinson's disease research. S. S. DAS*; A. DUFOUR; M. BAPTISTA; K. DAVE; M. FACHERIS; J. EBERLING; A. URKOWITZ; M. HAUPT; L. VINCENT; N. WILLIS; B. LONG; B. FISKE; T. SHERER; M. FRASIER. *The Michael J. Fox Fndn. For Parkinson's Res.*

2:00 I10 **622.18** The expression level of transgenic alpha-synuclein correlates with the severity of Parkinsonian phenotypes in mice. C. SGOBIO; M. DAVIS; J. YU; Y. MATEO; G. LIU; D. M. LOVINGER; H. CAI*. *Natl. Inst. Aging, Natl. Inst. Alc Abus & Alc.*

3:00 I11 **622.19** Progressive dopaminergic degeneration and behavioral deficits in a novel conditional mutant hLRRK2 mouse model. T. N. TAYLOR*; J. KIM; D. SWING; L. TESSAROLLO; D. MOORE; M. K. LEE. *Univ. of Minnesota, Natl. Cancer Inst., Ecole Polytechnique Federale De Lausanne.*

4:00 I12 **622.20** Absence of GSTpi induces behavioral and neurochemical changes in A30P, but not A53T alpha synuclein transgenic mice. D. B. LESTER*; A. KORFF; Y. JIAO; A. K. PANI; K. J. SAMPLE; R. NUSSBAUM; R. J. SMEYNE. *St Jude Children's Res. Hosp., Univ. of Washington Sch. of Med., UCSF.*

1:00 I13 **622.21** Evaluation of motor and non-motor behaviors in DJ-1 knockout rats. T. L. KYSER*; A. M. HEMMERLE; S. N. CASSELLA; A. M. ST. JOHN; B. A. GARNER; L. E. FULKS; A. EGAN; O. EKHATOR; J. P. HERMAN; S. M. FLEMING; K. B. SEROOGY. *Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Cincinnati.*

2:00 I14 **622.22** ● Progressive motor deficits in α-synuclein A53T mice as a model of Parkinson's disease. D. HAVAS; D. AMSCHL; J. NEDDENS; M. WINDISCH*; H. ROEMER; E. MASLIAH; B. HUTTER-PAIER. *QPS-Austria Gmbh, Karl-Franzens Univ., Univ. of California San Diego.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 I15 **622.23** Over-expression of truncated or wild-type α-synuclein produces early cognitive and motor deficits via striatal cholinergic synaptic dysfunction. A. TOZZI*; V. BAGETTA; A. DE IURE; M. WEGRZYNOWICZ; M. DECRESSAC; C. GIAMPÀ; J. W. DALLEY; E. LATAGLIATA; J. XIA; S. PUGLISI-ALLEGRA; C. COSTA; M. DI FILIPPO; V. GHIGLIERI; A. BJÖRKLUND; M. SPILLANTINI; B. PICCONI; P. CALABRESI. *Fondazione Santa Lucia IRCCS, Univ. degli Studi di Perugia, Univ. of Cambridge, Lund Univ., Univ. of Cambridge, Univ. degli Studi "La Sapienza", Lund Univ.*

4:00 I16 **622.24** The effect of dietary ketosis on cognition and motor function in Parkinson's disease: A translational study. S. M. FLEMING; J. SIMMONS; K. NEWLAND; I. VILINSKY*; M. D. SHIDLER; A. N. STOVER; R. KRIKORIAN. *Univ. of Cincinnati, Univ. of Cincinnati, Univ. of Cincinnati.*

1:00 I17 **622.25** ● Peripheral and central administration of the molecular tweezer CLR01 shows beneficial effects in mice overexpressing human wildtype alpha-synuclein. F. RICHTER*; C. ZHU; S. SUBRAMANIAM; N. FRANICH; N. BOVE; P. LEE; K. DE LA ROSA; J. KWONG; A. ATTAR; G. BITAN; M. CHESSELET. *UCLA, Sch. of Med.*

2:00 I18 **622.26** ● Reducing alpha-synuclein after deficit onset improves behavioral deficits and pathology in over-expressing mice. N. R. FRANICH*; J. K. MALLAJOSYULA; F. RICHTER; I. WILLIAMS; K. DE LA ROSA; C. ZHU; S. R. SUBRAMANIAM; F. BENNETT; M. CHESSELET. *UCLA Neurol., Isis Pharmaceuticals.*

3:00 J1 **622.27** Sleep dysfunction in mice overexpressing alpha-synuclein under the Thy1 promoter. K. A. MCDOWELL*; D. SHIN; K. P. ROOS; M. CHESSELET. *UCLA, UCLA.*

4:00 J2 **622.28** Inhibiting kynurenine 3-monooxygenase reverses behavioral deficits in the Thy1 a-synuclein mouse model of Parkinson's disease. A. MANN*; I. WILLAMS; M. PANCEK; M. WATSON; E. TORRES; K. DE LA ROSA; S. LEE; C. ZHU; P. MUCHOWSKI; R. SCHWARCZ; M. CHESSELET. *Univ. of California Los Angeles, Gladstone Inst. of Neurolog. Dis., Univ. of Maryland.*

1:00 J3 **622.29** Chronic nicotine treatment improves cognitive deficits and hyperactivity in mice over-expressing alpha-syuclein (Thy1-aSyn mice). S. SUBRAMANIAM*; I. MAGEN; N. BOVE; C. ZHU; F. RICHTER; V. LEMESRE; B. PATEL; J. KWONG; S. CAMPEAU; H. A. LESTER; M. CHESSELET. *UCLA, DG Sch. of Med., Inst. of Pharmacology, Pharm. and Toxicology VMF, Inst. Curie, Div. of Biology, California Inst. of Technol.*

POSTER

623. Parkinson's Disease: Rodent Toxin Models

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 J4 **623.01** Neuroprotective efficacy of the P7C3 series of neuroprotective compounds in the 6-OHDA rat model of Parkinson's disease. H. J. DE JESÚS-CORTÉS*; A. D. MILLER; J. K. BRITT; J. NAIDOO; J. M. READY; N. NARAYANAN; A. A. PIEPER. *Univ. of Texas Southwestern Med. Ctr., The Univ. of Iowa Carver Col. of Med., The Univ. of Iowa Carver Col. of Med., Univ. of Texas Southwestern Med. Ctr., The Univ. of Iowa Carver Col. of Med.*

2:00 J5 **623.02** Effect of a novel negative allosteric modulator (NAM) of metabotropic glutamate receptor 5 (mGluR5) on neurological diseases in rodents. M. KONNO*; T. OHYAMA; K. NISHIMURA; Y. NUMAJIRI; K. YOSHIKAWA; R. HAYASHI; K. HASEBE; K. NAKAO; T. SUZUKI; H. MOCHIZUKI; M. KAINO. *Toray Industries, Inc.*

3:00 J6 **623.03** ● Differentially altered neuronal number and morphology in midbrain Dopaminergic subregions after a unilateral intrastriatal 6-OHDA lesion. S. O. AHMAD*; M. HEALY-STOFFEL; J. STANFORD; B. LEVANT. *St. Louis Univ., Univ. of Kansas Med. Ctr.*

4:00 J7 **623.04** Effects of acute exposure to the herbicide atrazine on fos expression in the male rat brain. S. MENDOZA-TREJO; M. GIORDANO*; V. M. RODRIGUEZ. *Univ. Nacional Autónoma De México.*

1:00 J8 **623.05** ● Intranasally administered deferoxamine induces neuroprotection in a 6-OHDA model of Parkinson's disease. J. M. FINE*; A. C. FORSBERG; D. B. RENNER; K. A. FALTESEK; K. G. MOHAN; J. C. WONG; L. C. ARNESON; J. M. CROW; W. H. FREY, II; L. R. HANSON. *Regions Hosp.*

2:00 J9 **623.06** Nelf-mediating rna polymerase ii stalling controls l-dopa induced dyskinesia. C. GROSS*; M. BASTIDE; N. DUTHEIL; E. BEZARD. *Inst. of Neurodegenerative Dis. CNRS UMR 5293.*

3:00 J10 **623.07** Progressive nigrostriatal neurodegeneration and α-synucleinopathy induced by AAV-mediated overexpression of mutant synuclein in rats. G. PORRAS*; S. DOVERO; M. ENGELN; M. THIOLAT; D. SCHELLER; A. MICHEL; P. FERNAGUT; B. DEHAY; E. BEZARD. *Inst. of Neurodegenerative Dis., Parkinson's Dis. Pharmacol.*

4:00 J11 **623.08** Long-term Rho kinase (ROCK) inhibition induces regeneration in an *in vivo* model of Parkinson´s disease. L. TATENHORST*; K. SAAL; L. TÖNGES; M. BÄHR; P. LINGOR. *Univ. Med. Goettingen, Nanoscale Microscopy and Mol. Physiol. of the Brain (CNMPB).*

1:00 J12 **623.09** Nadph oxidase, microglia and neurodegeneration in an animal model of Parkinson´s disease. M. S. HERNANDES*; G. D. R. SANTOS; C. C. CAFÉ-MENDES; L. S. LIMA; C. SCAVONE; C. D. MUNHOZ; L. G. BRITTO. *Univ. of São Paulo/ Inst. of Biomed. Sci., Univ. of São Paulo/ Inst. of Biomed. Sci.*

2:00 J13 **623.10** Acute alpha-synuclein oligomer model of Parkinson's disease: time-course of behavioral symptoms and degeneration. M. GRALLE*; F. S. NEVES; R. A. GONÇALVES-DA-SILVA; F. C. RIBEIRO; D. BECKMAN; J. T. S. FORTUNA; J. R. CLARKE; F. G. DE FELICE; S. T. FERREIRA; C. P. FIGUEIREDO. *UFRJ, UFRJ.*

3:00 J14 **623.11** AAV9-mediated expression of human alpha-synuclein: Behavioral discrepancy with the 6-OHDA model of Parkinson's disease pathology. W. BOBELA; P. AEBISCHER*; B. SCHNEIDER. *Ecole Polytechnique Federale De Lausanne.*

4:00 J15 **623.12** The effect of noradrenaline depletion on motor impairment and dopamine cell loss in a rat model of Parkinson's disease. E. J. SHIN*; J. ROGERS; A. BJÖRKLUND; M. CARTA. *Lund Univ., Cagliari Univ.*

1:00 J16 **623.13** Selective inactivation of striatal FosB expressing neurons alleviates L-Dopa-induced dyskinesia AND potentiates L-Dopa-induced motor activation. M. ENGELN*; M. BASTIDE; B. DEHAY; E. TOULME; C. GROSS; E. BEZARD; P. FERNAGUT. *Inst. of Neurodegenerative Dis.*

2:00 J17 **623.14** Spontaneously hypertensive rats are less susceptible to the neurotoxic effects of 6-OHDA than control rats. V. A. RUSSELL*; M. VON BERG; L. MARAIS; M. VAN DEN BERG; J. WOMERSLEY; T. STERLEY; F. HOWELLS. *Univ. Cape Town.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 J18 **623.15** ▲ Neuroproctive effects of treatment with atorvastatin after intranasal administration of mptp in rats, an experimental model of Parkinson´s disease. A. CASTRO*, SR; R. PREDIGER; C. TASCA. *Biochem. Dept., Univ. Federal de Santa Catarina.*

4:00 K1 **623.16** AAV.shRNA-mediated ROCK downregulation attenuates dopaminergic degeneration in the 6-OHDA mouse model of Parkinson´s disease. K. A. SAAL*; L. TATENHORST; L. TOENGES; É. SZEGOE; J. C. KOCH; U. MICHEL; M. BAEHR; P. LINGOR. *Univ. Med. Goettingen, Univ. Med. Goettingen, Univ. Med. Goettingen.*

1:00 K2 **623.17** Dual vulnerability of PARKIN to caspase and calpain cleavage upon proteasome and mitochondria impairment: Relevance to Parkinson disease. H. WANG*; M. FIGUEIREDO-PEREIRA. *Hunter College, Grad. Ctr. of CUNY.*

2:00 K3 **623.18** *In vivo* evaluation of microglia activation and inflammation by PET with [^{11}C](R)PK11195 in a mouse model of Parkinson disease induced by prostaglandin J2. K. SHIVERS*; A. NIKOLOPOULOU; S. MACHLOVI; M. SYNAN; S. VALLABHAJOSULA; M. FIGUEIREDO-PEREIRA. *Hunter College, CUNY, Citigroup Biomed. Imaging Center, Weill Cornell Med. Col. of Cornell Univ.*

3:00 K4 **623.19** Exogenous pre-formed α-synuclein fibrils initiate the formation of Lewy body-like intracellular inclusions and nigrostriatal degeneration in naïve rats. K. L. PAUMIER*; K. C. LUK; F. P. MANFREDSSON; N. M. KANAAN; J. W. LIPTON; T. J. COLLIER; C. KEMP; S. CELANO; J. Q. TROJANOWSKI; V. M. LEE; C. E. SORTWELL. *Michigan State Universtiy, Univ. of Pennsylvania.*

4:00 K5 **623.20** Inoculation of α-Synuclein pre-formed fibrils in enteric neurons induces gastroinstestinal dysfunction. J. A. GARCIA*; N. C. KUHN; J. J. GALLIGAN; K. C. LUK; J. Q. TROJANOWSKI; V. M. LEE; F. P. MANFREDSSON. *Dept of Translational Sci. and Mol. Med., Michigan State Univ., Michigan State Univ., Univ. of Pennsylvania.*

1:00 K6 **623.21** Selective knockout of VGAT in the motor cortex completely protects against MPTP-induced lesioning in mice. R. HOOD*; C. MOORE; H. S. GOMPF; P. M. FULLER; C. K. MESHUL. *OHSU, Portland VA Med. Ctr., Harvard Med. Sch. and Beth Israel Deaconess Med. Ctr.*

2:00 K7 **623.22** Selective knockout of VGLUT-2 in the subthalamic nucleus completely protects against MPTP-induced loss of dopamine cells in the substantia nigra pars compacta in mice. C. K. MESHUL*; R. L. HOOD; M. D. SCONCE; C. MOORE; H. GOMPF; P. FULLER; M. NEUBERT. *VA Med. Ctr., OHSU, Portland VA Med. Ctr., Harvard Med. Sch. and Beth Israel Deaconess Med. Ctr.*

3:00 K8 **623.23** L-745,870 and sub-therapeutical doses of L-DOPA have a therapeutic effect in hemiparkinsonian rats. M. RODRÍGUEZ*; S. I. LOYA; S. ALBARRÁN; J. ACEVES; D. ERLIJ; B. FLORÁN. *CINVESTAV, CINVESTAV, CINVESTAV, SUNNY DOWNSTATE MEDICAL CENTER.*

4:00 K9 **623.24** Neuroprotective activities of agastache rugosa in an animal model of Parkinson's disease. M. YE; H. KWON; H. YOON; E. CHUNG; S. KIM; I. SHIM; H. BAE*. *Col. of Korean medicine, Kyung Hee university, BK21 Korean Med. Sci. Crnter, Kyung Hee Univ., Col. of Oriental Med.*

1:00 K10 **623.25** Modulation of hippocampal synaptic transmission and activity-dependent synaptic plasticity by MPTP and MPTP-mediated deprivation of hippocampal dopamine. T. BEHNISCH*; Y. Q. CHEN; Y. H. ZHUANG; Y. Y. HUANG; Y. CHEN; G. Q. ZHU. *Inst. of Brain Science, State Key Lab. of Med. Neurobio., Western Univ. of Hlth. Sci.*

2:00 K11 **623.26** Inhibition of the proteasome by intranigral lactacystin injection as a mouse model for Parkinson's disease. A. MASSIE*; E. BENTEA; J. VAN LIEFFERINGE; T. DEMUYSER; E. MERCKX; Y. MICHOTTE; I. SMOLDERS. *Vrije Univ. Brussel.*

3:00 K12 **623.27** Synergistic effects of zinc and dopamine on the death of dopaminergic neurons are mediated by STAT1/3 pathway. T. YANG*; L. YANG; P. WU; L. KAO. *Natl. Yang-Ming Univ., Natl. Yang-Ming Univ.*

4:00 L1 **623.28** Live cell high content screen for inhibitors of 6-hydroxydopamine oxidative toxicity. C. T. DOOLEY*; L. LI; M. GIULIANOTTI; T. LA VOI. *Torrey Pines Inst. For Mol. Studies.*

1:00 L2 **623.29** Could developmental stress influence the molecular events underlying neurodegenerative processes? as examined in a 6-hydroxydopamine rat model of Parkinson's disease. H. S. TOMES*; D. LANG; V. A. RUSSELL. *Univ. of Cape Town.*

POSTER

624. Neurodegeneration: Protein Aggregation Disorders

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 L3 **624.01** Microrna-dependent gene regulation in early prion-related neurodegenerative disease. S. A. BOOTH*; A. MAJER; A. BOESE; R. SABA. *Publ. Hlth. Agency of Canada, Univ. of Manitoba.*

2:00 L4 **624.02** ● Examining microRNAs in N-Methyl-D-Aspartate receptors in prion induced neurodegeneration. A. S. BOESE*; Y. NIU; S. A. BOOTH. *Publ. Hlth. Agency of Canada, Univ. of Manitoba, Univ. of Manitoba.*

3:00 L5 **624.03** Using laser capture microdissection (lcm) to identify stress-associated markers in an *in vivo* model of experimentally-induced prion disease. M. J. DAVIES*; D. GOMEZ-NICOLA; V. O'CONNOR; V. H. PERRY. *Univ. of Southampton.*

4:00 L6 **624.04** Endoplasmic reticulum stress-induced prion protein gene expression. M. DÉRY*; J. JODOIN; M. MISIEWICZ; B. FOVEAU; A. C. LEBLANC. *Lady Davis Institute, McGill Univ.*

1:00 L7 **624.05** ● Brain-targeted immunotherapy with single chain antibodies for synucleinopathies. B. J. SPENCER*; S. EMADI; S. MICHAEL; K. KOSBERG; E. ROCKENSTEIN; A. ADAME; M. SIERKS; E. MASLIAH. *Neurotransit, Arizona State Univ., UCSD.*

2:00 L8 **624.06** Deciphering the role of α-synuclein in the pathogenesis of multiple system atrophy using induced pluripotent stem cell-derived neural cultures. J. FISCHER*; R. GORRIS; I. SCHMITT; P. BREUER; A. LEINHAAS; M. PEITZ; U. WUELLNER; T. QUANDEL; M. KARUS; O. BRUESTLE. *Inst. of Reconstructive Neurobio. Life & Brain Ctr., Inst. of Neurobio.*

3:00 L9 **624.07** ● Genome editing of alpha-synuclein in iPSCs from a patient with multiple system atrophy. S. HERMANSON*; D. THOMPSON; K. VOGEL; J. LANGSTON; B. SCHUELE; K. BI. *Life Technologies, Parkinson's Inst.*

4:00 L10 **624.08** Toll-like receptors expression in multiple system atrophy brains. T. BRUDEK*; K. WINGE; T. KLITMØLLER AGANDER; B. PAKKENBERG. *Bispebjerg Univ. Hosp., Bispebjerg Univ. Hosp., Hvidovre Hosp.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 L11 **624.09** miR-219-5p regulates tau stabilization and neurite outgrowth. I. SANTA-MARIA*; M. E. ALANIZ; K. LOZADA; J. F. CRARY. *Columbia Univ. Med. Ctr., Columbia Univ. Med. Ctr.*

2:00 L12 **624.10** Distribution of the huntingtin-associated protein 1 (HAP1) in the spinal cord of the adult rat. M. N. ISLAM*; R. FUJINAGA; A. YANAI; K. KOKUBU; R. YONETANI; C. YAMADA; H. YOSHIDOME; Y. KIKUCHI; M. R. JAHAN; K. SHINODA. *Yamaguchi Univ. Grad. Sch. of Med.*

POSTER

625. Neurodegeneration: Synaptopathies, Autophagy, and Ubiquitin

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 L13 **625.01 Withdrawn.**

2:00 L14 **625.02 Withdrawn.**

3:00 L15 **625.03** Functional specificity of deubiquitinating enzymes in neurodegeneration. R. ARON; A. DAUB; A. S. TSVETKOV*; S. FINKBEINER. *Univ. California - San Francisco, Taube-Koret Ctr. for Huntington's Dis. Res., Univ. of California, San Francisco.*

4:00 L16 **625.04** ● Modulators of the deubiquitylase USP14 for treatment of synapse related disorders. T. R. BUTT*; M. J. EDDINS; J. P. LAROCQUE; D. E. STERNER; S. AGARWAL; M. P. KODRASOV; M. R. MATTERN; B. NICHOLSON. *Progenra Inc.*

1:00 L17 **625.05** CaMKII mediates accumulation of CYLD and regulates deubiquitinase activity at the postsynaptic density. S. THEIN; J. TAO-CHENG; Y. LI; K. U. BAYER; T. S. REESE; A. DOSEMECI*. *NIH, NIH, NIH, Univ. of Colorado Denver.*

2:00 L18 **625.06 Unable to Attend.** Understanding how ataxin-3, a polyglutamine disease protein, suppresses neurodegeneration in *Drosophila* models of disease. S. V. TODI*; J. R. BLOUNT; W. TSOU. *Wayne State Univ. Sch. of Med.*

3:00 M1 **625.07** Class III ubiquitin-conjugating enzymes and ubiquitin isopeptidase Y are involved in TDP43 ubiquitinylation. F. HANS; P. J. KAHLE*; F. C. FIESEL; S. JÄCKEL; A. VOIGT. *German Ctr. for Neurodegenerative Dis., Univ. of Tübingen, Hertie Inst. for Clin. Brain Res., Univ. Med. Ctr. Aachen.*

4:00 M2 **625.08** Investigating the membrane-association of UCH-L1. P. BISHOP*; D. L. ROCCA; J. M. HENLEY. *Univ. of Bristol.*

1:00 M3 **625.09** Identification of novel substrate-specific ubiquitin and SUMO E3 ligase activity of UHRF2 involved in the intranuclear degradation of polyglutamine aggregates. K. C. CHUNG*; Y. OH; J. M. KANG; Y. S. LEE; W. H. SHIN. *Yonsei Univ.*

POSTER

626. Epilepsy: Ion Channels

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 M4 **626.01** Reduced Scn8a expression in hippocampal excitatory neurons decrease seizure-like burst activity. B. S. TANAKA*; A. PHUNG; A. L. GOLDIN. *UC Irvine.*

2:00 M5 **626.02** Knockdown of $Na_v1.1$ alters the firing of medial septal neurons *in vivo* and disrupts hippocampal oscillations: Implications for cognitive deficits in Dravet syndrome. A. BENDER*; B. W. LUIKART; G. L. HOLMES; R. C. SCOTT; P. LENCK-SANTINI. *Geisel Sch. of Med. at Dartmouth, Geisel Sch. of Med. at Dartmouth, Univ. of Vermont Col. of Med., Univ. Col. London.*

3:00 M6 **626.03** SCN2A mutation associated with BFNIS leads to hyperexcitability in mouse brain. Y. LIU*; B. ENGELAND; W. FAZELI; F. MORELLINI; F. XOMPERO; S. MALJEVIC; U. HEDRICH; H. BECK; H. LERCHE; D. ISBRANDT. *Hertie-Institute For Clin. Brain Res., Exptl. Neuropediatrics, Life & Brain Ctr.*

4:00 M7 **626.04** Phenytoin attenuates the evoked neurotransmission in cultured embryonic cortical neurons by prolonging the Na^+ channel recovery time. C. PAN*; M. CHOU; H. LIOU. *Natl. Taiwan Univ.*

1:00 M8 **626.05** Nav1.1 haploinsufficient excitatory and inhibitory neurons play distinct roles in the epileptic pathology in Dravet syndrome model mice. I. OGIWARA*; T. IWASATO; H. MIYAMOTO; R. IWATA; T. YAMAGATA; E. MAZAKI; Y. YANAGAWA; N. TAMAMAKI; T. K. HENSCH; S. ITOHARA; K. YAMAKAWA. *RIKEN Brain Sci. Inst. - Wako, RIKEN Brain Sci. Inst., Natl. Inst. of Genet., The Grad. Univ. for Advanced Studies (SOKENDAI), RIKEN Brain Sci. Inst., Japan Sci. and Technol. Agency, RIKEN Brain Sci. Inst., Gunma Univ. Grad. Sch. of Med., Japan Sci. and Technol. Agency, Grad. Sch. of Med. Sciences, Kumamoto Univ., Harvard Univ.*

2:00 M9 **626.06** High throughput phenotype-based drug screening for Dravet syndrome using a Scn1a zebrafish mutant. S. C. BARABAN*; M. T. DINDAY; G. A. HORTOPAN. *Univ. California San Francisco.*

3:00 M10 **626.07** Lacosamide, a novel sodium channel modulator is effective in the lamotrigine-resistant corneal kindled mouse model of drug-resistant epilepsy. A. K. SRIVASTAVA*; H. S. WHITE. *Anticonvulsant Drug Develop. Program, Anticonvulsant Drug Develop. Program, Univ. of Utah.*

4:00 M11 **626.08** Impaired ability of inhibitory interneurons links with eplieptogenesis using a Dravet mouse model. M. TSAI*; M. LEE; H. FAN; Y. CHEN; C. CHEN; I. YU; C. YIN; H. CHEN; L. LEE; S. LIN. *Natl. Taiwan Univ. Col. of Med., Natl. Taiwan Univ., Natl. Taiwan Univ. Col. of Med., Natl. Taiwan Univ. Col. of Med., Natl. Taiwan Univ. Col. of Med., Natl. Taiwan Univ. Hosp., Natl. Taiwan Univ.*

1:00 M12 **626.09** How small changes in Nav1.1 channel function can alter network activity. U. B. HEDRICH*; M. POFAHL; C. LIAUTARD; D. KIRSCHENBAUM; Y. LIU; M. DIHNÉ; A. ESCAYG; M. MANTEGAZZA; H. BECK; H. LERCHE. *Hertie-Institute For Clin. Brain Res., Univ. of Bonn Med. Ctr., IPMC, CNRS UMR7275, Nice-Sophia Antipolis, Emory Univ.*

2:00 M13 **626.10** Region-specific knockdown of T-type calcium channels in a genetic model of absence seizures. S. M. CAIN*; J. R. TYSON; R. L. RUNGTA; V. C. GALVIN; P. J. C. LIN; P. R. CULLIS; B. A. MACVICAR; T. P. SNUTCH. *Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia, Univ. of British Columbia.*

3:00 M14 **626.11** ● Trpm2 deletion causes mutifocal epileptic seizures. D. YANG*; Y. JANG; S. JUNG; J. JUNG; H. CHO; S. LEE; J. LEE; D. JEON; U. OH. *Sensory Res. Ctr., Korea Advanced Inst. of Sci. and Technol. (KAIST).*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 M15 **626.12** ▲ The V287L mutation in the β2 nicotinic acetylcholine subunit alters membrane expression of α4β2 and α5α4β2. C. YU*; W. A. NICHOLS; B. J. HENDERSON; C. B. MAROTTA; C. I. RICHARDS; D. A. DOUGHERTY; B. N. COHEN; H. A. LESTER. *Caltech, Universtiy of Kentucky.*

1:00 M16 **626.13** Traumatic brain injury induces rapid enhancement of cortical excitability in juvenile rats. J. NICHOLS*; C. WU; R. PEREZ; L. TREIMAN; T. ANDERSON. *Arizona State Univ., Univ. of Arizona, Barrow Neurolog. Inst.*

2:00 M17 **626.14** The RNA-induced silencing complex regulates expression of the potassium channel Kv4.2 during epileptic seizures. C. GROSS*; X. YAO; L. XING; G. J. BASSELL. *Emory Univ.*

3:00 M18 **626.15** Photosensitive seizures in a rodent model of focal neocortical epilepsy. R. C. WYKES*; E. CHABROL; S. SCHORGE; M. WALKER; D. KULLMANN. *UCL Inst. of Neurol.*

4:00 N1 **626.16** Potassium channel gene therapy in rodent models of focal neocortical epilepsy. E. CHABROL; R. WYKES; D. KAETZEL; S. SCHORGE; D. KULLMANN; M. C. WALKER*. *Inst. Neurol.*

1:00 N2 **626.17** *In vivo* imaging of neocortical intracellular K+ fluctuations during seizures. S. DUFOUR*; D. RINGUETTE; S. STERN; M. PETTIGREW; M. WU; T. VALIANTE; O. LEVI; P. L. CARLEN. *Univ. of Toronto, Toronto Western Res. Inst.*

2:00 N3 **626.18** ● Repetitive mild traumatic brain injury selectively decreases cortical inhibition in juvenile rats. C. C. GODDEYNE; C. WU; T. R. ANDERSON*. *Univ. of Arizona-Com PHX, Arizona State Univ.*

3:00 N4 **626.19** ● Development of high throughput screening assays to discover kir4.1 activators: a novel antiepileptic mechanism in temporal lobe epilepsy (TLE). K. DEKERMENDJIAN*; M. GRUNNET; K. FREDERIKSEN; H. S. JENSEN. *H. Lundbeck A/S, H. Lundbeck A/S.*

4:00 N5 **626.20** Furosemide prevented membrane KCC2 down regulation during seizure stimulation in hippocampus. L. CHEN*; Z. WU; L. WAN; Y. WANG. *Inst. of Brain Sci. and State Key Lab. for Med. Neurobiology, Fudan Univ.*

1:00 N6 **626.21** Mechanisms of generation of seizure-like discharges in piriform cortex after 4-aminopyridine application in the isolated guinea-pig brain. L. M. UVA*; F. TROMBIN; L. LIBRIZZI; M. DE CURTIS. *Fondazione Inst. Neurologico C. Besta.*

2:00 N7 **626.22** A kv10.2 mutation, r327h, associated with human epilepsy: Multi-state structural modeling and voltage-clamp analysis. Y. YANG*; D. V. VASYLYEV; F. DIB-HAJJ; K. R. VEERAMAH; M. F. HAMMER; S. DIB-HAJJ; S. G. WAXMAN. *VA CT Healthcare Syst., Yale Univ., Yale Univ., Univ. of Arizona.*

POSTER

627. Epilepsy: GABAergic Transmission and Development

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 N8 **627.01** Rescuing tonic inhibition suppresses spike-wave discharges in a mouse model of absence epilepsy. K. P. MANGAN*; A. B. NELSON; C. CIRELLI; S. M. JOHNSON; M. V. JONES. *Univ. Wisconsin-Madison, Univ. Wisconsin-Madison, Univ. Wisconsin-Madison, Univ. Wisconsin-Madison.*

2:00 N9 **627.02** Optogenetic chloride loading in neurons: Implications for epilepsy. H. ALFONSA; A. J. TREVELYAN*. *Univ. of Newcastle, Univ. of Newcastle.*

3:00 N10 **627.03** Alterations in neuronal cytoplasmic Cl^- dynamics triggered by two photon laser-induced necrosis of neighboring neurons. K. EGAWA*; K. LILLIS; V. DZHALA; K. STALEY. *Massachusetts Gen. Hosp. and Harvard Med. Sch.*

4:00 N11-DP5 **627.04** *In vitro* and *in vivo* analysis of precursors cells from medial ganglionic eminence in epileptic rats. S. A. ROMARIZ*; D. S. PAIVA; M. VALENTE; M. CALCAGNOTTO; G. BARNABÉ; S. BITTENCOURT; M. NAFFAH-MAZZACORATTI; E. CASTRO-NETO; L. MELLO; B. M. LONGO. *Univ. Federal De São Paulo, Univ. Federal do Rio Grande do Sul, Brazil, Univ. Federal De São Paulo.*

1:00 N12 **627.05** The effect of kindling on hippocampal GABAergic interneuron expression. L. E. KALYNCHUK*; J. J. BOTTERILL; D. M. FERGUSON. *Univ. of Saskatchewan, Univ. of Saskatchewan.*

2:00 N13 **627.06** Modulation of $GABA_A$ receptors by fractalkine in human epilepsy. E. PALMA*; C. ROSETI; S. FUCILE; C. LAURO; K. MARTINELLO; G. RUFFOLO; E. ARONICA; C. LIMATOLA. *Univ. Roma 'La Sapienza', IRCCS San Raffaele Pisana, IRCCS Neuromed, Univ. of Amsterdam.*

3:00 N14 **627.07** Molecular mechanisms underlying the expression of alpha4 gamma2 subunit-containing GABARs in intractable epilepsies. S. JOSHI*; L. JANSEN; J. KAPUR. *Univ. of Virginia.*

4:00 N15 **627.08** Potent modulation of GABAA receptors by piperine derivatives. A. SCHOEFFMANN*; L. WIMMER; T. SCHWARZ; T. ERKER; M. D. MIHOVILOVIC; S. HERING. *Univ. of Vienna, Vienna Univ. of Technol., Univ. of Vienna.*

1:00 N16 **627.09** Enhanced catamenial seizure exacerbation in mice lacking δ-subunit extrasynaptic GABA-A receptors. B. L. CLOSSEN*; D. S. REDDY. *TAMU, Texas A&M Hlth. Sci. Ctr.*

2:00 N17 **627.10** ● Accelerated limbic epileptogenesis in mice lacking δ-subunit extrasynaptic GABA-A receptors. D. S. REDDY*; C. M. CARVER; B. L. CLOSSEN. *Texas A&M Hlth. Sci. Ctr.*

3:00 N18 **627.11** Ubiquitin-like protein Plic-1 affects epileptogenesis by regulating GABAA Receptors function. Y. ZHANG; H. DONG*; X. WANG. *The First Affiliated Hosp. of Chongqing Med. Univ., Northwestern Univ. Feinberg Sch. of Med.*

4:00 O1 **627.12** Glioma cells alter neuronal chloride equilibrium through glutamate release and intracellular Zn2+ accumulation. S. DI ANGELANTONIO*; E. MURANA; C. BERTOLLINI; F. SCALA; S. COCCO; C. LAURO; C. LIMATOLA; P. BREGESTOSKI; D. RAGOZZINO. *SAPIENZA UNIVERSITY OF ROME, Ctr. for Life Nano Science@ Sapienza, Inst. Italiano di Tecnologia,, IRCCS Neuromed, INSERM URM 1106 Aix-Marseille Univ.*

1:00 O2 **627.13** A novel neuroactive steroid with anticonvulsant and anxiolytic activity. D. HOGENKAMP*; M. B. TRAN; R. F. YOSHIMURA; K. W. GEE. *Univ. of California, Irvine.*

2:00 O3 **627.14** Optogenetic demonstration of a reorganized GABAergic circuit in a model of epilepsy. Z. PENG*; N. ZHANG; W. WEI; C. S. HUANG; Y. CETINA; T. S. OTIS; C. R. HOUSER. *David Geffen Sch. of Med. at UCLA, David Geffen Sch. of Med. at UCLA, David Geffen Sch. of Med. at UCLA, VA Greater Los Angeles Healthcare Syst.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 O4 **627.15** Decrease in heterogeneous inhibitory inputs to dentate fast-spiking basket cells augments inhibitory network homogeneity following pilocarpine-induced status epilepticus. J. YU*; A. PRODDUTUR; B. SWIETEK; F. S. ELGAMMAL; V. SANTHAKUMAR. *UMDNJ.*

4:00 O5 **627.16** BDNF is required for activity-dependent but not constitutive up-regulation of KCC2 during development. M. PUSKARJOV*; F. AHMAD; S. KHIRUG; P. BLAESSE; K. KAILA. *Univ. of Helsinki, The Univ. of Münster.*

1:00 O6 **627.17** Differences in cellular excitability contribute to genetic background effects in a mouse model of Dravet Syndrome. M. RUBINSTEIN; C. J. JONES; T. SCHEUER; W. A. CATTERALL*. *Univ. of Washington.*

2:00 O7 **627.18** Loss of parvalbumin immunopositive neurons in the reticular nucleus of the thalamus at 6 months after experimental TBI. N. E. HUUSKO*; A. PITKÄNEN. *Univ. of Eastern Finland.*

3:00 O8 **627.19** Trauma disrupts cationic gradients in hippocampal neurons of the developing brain. T. BALENA*; K. J. STALEY. *Massachusetts Gen. Hosp.*

4:00 O9 **627.20** Impaired excitability of parvalbumin- and somatostatin-expressing cortical interneurons in a mouse model of Dravet Syndrome. C. TAI; M. RUBENSTEIN; T. SCHEUER*; W. CATTERALL. *Univ. of Washington, Univ. Washington.*

1:00 O10 **627.21** ● Anticonvulsant efficacy of diuretics during post-traumatic seizures *in vitro.* V. I. DZHALA*; Y. SAPONJIAN; M. MAIL; K. STALEY. *Massachusetts Gen. Hospital, Harvard Med. Sch.*

2:00 O11 **627.22** $GABA_A$ receptor activation in newborn rat increases the expression of several GABAergic markers in the hippocampus and diminishes seizure susceptibility. M. E. URENA-GUERRERO*; J. MURGUÍA-CASTILLO; S. OROZCO-SUÁREZ; C. BEAS-ZÁRATE; A. I. FERIA-VELASCO. *Univ. De Guadalajara (CUCBA), Hosp. de Especialidades, CMN, Siglo XXI, IMSS.*

3:00 O12 **627.23** Differential effects of early-life seizures on GABAergic inhibition in the hippocampus of rats. A. MOHSENI; L. LEUNG*. *Univ. Western Ontario, Univ. Western Ontario.*

4:00 P1-DP4 **627.24** Optogenetic control of interneuronal synchrony can generate seizure-like events (sles) in multiple models of epilepsy. M. CHANG*; S. DUFOUR; J. DIAN; O. LEVI; P. L. CARLEN; T. A. VALIANTE. *Toronto Western Res. Inst., The Univ. of Toronto, The Univ. of Toronto.*

1:00 P2 **627.25** Subunit interface localized epilepsy-associated mutations decreased surface expression of GABAARs, and partially stabilized by low temperature and pharmacological chaperones. X. HUANG*; C. C. HERNANDEZ; N. HU; R. L. MACDONALD. *Vanderbilt Univ., Vanderbilt Univ.*

2:00 P3 **627.26** Characterization of local spatial propagation of ictal activity. L. MARTINET*; O. J. AHMED; K. Q. LEPAGE; J. NAFTULIN; M. BORZELLO; E. N. ESKANDAR; S. S. CASH; M. A. KRAMER. *Boston Univ., Massachusetts Gen. Hosp. / Harvard Med. Sch., Massachusetts Gen. Hosp. / Harvard Med. Sch.*

3:00 P4 **627.27** Activation of group I metabotropic glutamate receptors (mGluRI) prevents LTP in microgyral cortex. H. MENDONÇA*; P. CAMPELLO-COSTA; K. JACOBS. *Fluminense Federal Univ., Virginia Commonwealth Univ.*

4:00 P5 **627.28** Vertical and horizontal inhibition in a computational multi-column, multi-layer model of neocortex. B. STRACK*; K. J. CIOS; K. M. JACOBS. *Virginia Commonwealth Univ., Virginia Commonwealth Univ., Virginia Commonwealth Univ.*

1:00 P6 **627.29** Alteration of the GABA-A receptor α1 subunit expression in different types of interneurons of the human epileptic hippocampus. K. TÓTH; M. DREXEL; L. FARADZS-ZADE; L. ERőSS; J. VAJDA; P. HALÁSZ; W. LUCIA*; G. SPERK; Z. MAGLÓCZKY. *Inst. of Exptl. Medicine, Hungarian Acad. of Sci., Innsbruck Med. Univ., Natl. Inst. of Neurosci., Res. Ctr. For Natural Sciences, Hungarian Acad. of Sci.*

2:00 P7 **627.30** Loss of parvalbumin expressing interneurons in layer 2/3 of the human epileptogenic neocortex under various pathological conditions. S. HEFFT*; M. AUGUSTIN; S. IVANOVA. *Univ. of Freiburg-Dep. of Neurosurg., Univ. of Freiburg.*

POSTER

628. Brain Injury: Therapeutic Strategies II

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 P8 **628.01** Intravenous transplants of human adipose derived stem cell protect the brain from TBI-induced neurodegeneration and motor and cognitive impairments: Cell graft bio-distribution and soluble factors in young and aged rats. S. A. ACOSTA*; N. TAJIRI; M. SHAHADUZZAMAN; H. ISHIKAWA; K. SHINOZUKA; M. PABON; D. HERNANDEZ-ONTIVEROS; D. WON KIM; C. METCALF; M. STAPLES; T. DAILEY; J. VASCONCELLOS; G. FRANYUTI; L. GOULD; N. PATEL; D. COOPER; Y. KANEKO; C. V. BORLONGAN; P. C. BICKFORD. *Universty of South Florida, Ctr. of Excellence for Aging and Brain Repair, James A. Haley Veterans Affairs Med. Ctr., 3Department of Mol. Medicine, Univ. of South Florida.*

2:00 P9 **628.02** Environmental enrichment attenuates the deleterious effects of haloperidol after experimental traumatic brain injury. M. J. LAPORTE; C. M. MONACO; K. A. FOLWEILER; A. M. GREENE; E. A. OGUNSANYA; J. B. LEARY; J. M. KOEHLER; K. E. FREE; J. P. CHENG; R. T. DEPASQUALE*; A. E. KLINE. *Univ. of Pittsburgh, Phys Med. Rehab, Safar Ctr. Resuscitation Res,, Univ. of Pittsburgh.*

3:00 P10 **628.03** Beta adrenergic receptor inhibition in an oxygen glucose deprivation model. A. LAMB*; M. A. CLOND; P. S. RAJPUT; P. SHI; P. D. LYDEN; E. J. LEY. *Cedars Sinai Med. Ctr.*

4:00 P11 **628.04** Pharmacological intervention of the BDNF signaling pathway improves cellular and behavioral outcomes following traumatic brain injury. J. ALDER*; B. PATEL; A. GIARRATANA; R. ELSABEH; W. FUJIOKA; S. THAKKER-VARIA. *UMDNJ - Robert Wood Johnson Med. Sch.*

1:00 P12 **628.05** An attentional set-shifting test reliably and sensitively reveals impairments in executive function and behavioral flexibility after controlled cortical impact injury. C. O. BONDI; H. M. TENNANT; J. P. CHENG; C. M. MONACO; A. E. KLINE*. *Univ. of Pittsburgh, Univ. Pittsburgh.*

2:00 P13 **628.06** A mechanism of neuroprotection provided by pioglitazone following traumatic brain injury. H. M. YONUTAS*; W. J. GELDENHUYS; R. T. CARROLL; P. G. SULLIVAN. *Univ. of Kentucky, Northeast Ohio Med. Univ.*

3:00 P14 **628.07** Neuroprotective effect of gamma-glutamylcysteine ethyl ester on traumatic brain injury. J. CHO*; T. REED. *Eastern Kentucky Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 P15 **628.08** Effects of moderate brain n-3 fatty acid depletion on recovery from traumatic brain injury. A. DESAI*; J. BARNES; K. KEVALA; H. KIM. *NIAAA, NIH, NIAAA, NIH.*

1:00 P16 **628.09** Treatment with collagen scaffolds and human bone marrow stromal cells reduces neurocan and nogo-a expressions after traumatic brain injury. H. WU*; C. QU; A. MAHMOOD. *Henry Ford Hosp.*

2:00 P17 **628.10** Mild hyperthermia exacerbates cognitive deficits associated with mild traumatic brain injury. D. J. TITUS*; C. FURONES; D. W. DIETRICH; C. M. ATKINS. *Univ. of Miami Miller Sch. of Med.*

3:00 P18 **628.11** Mesenchymal stem cell therapy for optic neuropathies. B. MEAD*; M. BERRY; A. LOGAN; W. LEADBEATER; B. SCHEVEN. *Univ. of Birmingham, Univ. of Birmingham.*

4:00 Q1 **628.12** The nrf2-are pathway as a therapeutic target for acute traumatic brain injury: Harnessing endogenous cytoprotective defenses. D. M. MILLER*; I. N. SINGH; J. A. WANG; E. D. HALL. *Univ. of Kentucky.*

1:00 Q2 **628.13** Therapeutic effects of 2DG at the time of injury on fear conditioning and fear context recall at long intervals after TBI in plasticity-susceptible rats. P. A. RUTECKI*; S. OSTING; T. LANGBERG; T. SUTULA. *Univ. of Wisconsin, Wm. S. Middleton VA Hosp.*

2:00 Q3 **628.14** Minocycline reduces microglial activation, traumatic axonal injury and neurodegeneration in the traumatically-injured neonatal rat. J. W. HUH*; S. TRIVEDI; R. PRASAD; R. RAGHUPATHI. *Children's Hosp. of Philadelphia, Drexel Univ. Col. of Med.*

3:00 Q4 **628.15** Histone deacetylase inhibition prevents white matter lesions by titrating microglia/macrophage polarization following experimental traumatic brain injury. G. WANG*; X. HU; Y. WU; X. JIANG; L. MAO; A. K. F. LIOU; R. K. LEAK; Y. GAO; J. CHEN. *State Key Lab. of Med. Neurobiology, Fudan Univ., Univ. of Pittsburgh Sch. of Med., Inst. of Nautical Medicine, Nantong Univ., Mylan Sch. of Pharmacy, Duquesne Univ., Veterans Affairs Pittsburgh Hlth. Care Syst., Fudan Univ.*

4:00 Q5 **628.16** Programmed therapeutic exercise in closed head traumatic brain injury (cTBI)-induced multiple disabilities. P. K. BOSE*; J. HOU; R. NELSON; R. PARMER; S. TSUDA; F. THOMPSON. *North Florida/South Georgia VAMC, Univ. of Florida, Univ. of Florida, Univ. of Floorida.*

1:00 Q6 **628.17** Post-trauma administration of Pifithrin-α oxygen analogue improves histological and functional outcomes after experimental traumatic brain injury. J. WANG*. *Grad. Inst. of Med. Sci. TMU.*

2:00 Q7 **628.18** Suppression of SHP-1 promotes corticospinal tract sprouting and functional recovery after brain injury. T. TANAKA*; Y. FUJITA; M. UENO; T. YAMASHITA. *Osaka Univ., Core Res. for Evolutional Sci. and Technol. (CREST), Japan Sci. and Technol. Agency (JST).*

3:00 Q8 **628.19** Emotional, sensory and motor deficits in mice after mild traumatic brain injury produced using a novel closed-head model of primary overpressure blast are alleviated by the novel CB2 drug SMM189. A. J. REINER*; S. A. HELDT; A. J. ELBERGER; Y. DENG; N. H. GULEY; L. D'SURNEY; J. T. ROGERS; N. DEL MAR; M. G. HONIG; C. S. PRESLEY; B. M. MOORE. *The Univ. of Tennessee Hlth. Sci. Ctr., The Univ. of Tennessee Hlth. Sci. Ctr.*

4:00 Q9 **628.20** Donepezil reduces the efficacy of environmental enrichment on cognitive performance after experimental traumatic brain injury. R. TEHRANIAN-DEPASQUALE; N. K. YELLESWARAPU; J. DAY-COONEY; C. E. BOU-ABBOUD; C. M. MONACO; J. P. CHENG; C. O. BONDI*; A. E. KLINE. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

1:00 Q10 **628.21** Hypothalamic pituitary dysfunction following traumatic brain injury. E. ROSARIO*. *Casa Colina Centers For Rehabil.*

2:00 Q11 **628.22** Sodium selenate treatment reduces hyperphosphorylated tau and improves chronic outcome in an animal model of repeated brain concussion. S. R. SHULTZ*; X. TAN; D. WRIGHT; N. JONES; C. HOVENS; T. O'BRIEN. *Melbourne Brain Centre, Dept. of Medicine, Univerisity of Melbourne.*

3:00 Q12 **628.23** GMCSF-induced neuroprotective immunity in an experimental traumatic brain injury model. M. L. KELSO*; F. AHKTAR; B. R. ELLIOTT; H. E. GENDELMAN. *Univ. of Nebraska Med. Ctr., Univ. of Nebraska Med. Ctr.*

4:00 Q13 **628.24** ● Blocking Lysophosphatidic acid (LPA) increases subventricular zone proliferation after TBI in the mouse. W. S. MCDONALD*; R. SABBADINI; N. G. HARRIS. *Univ. of California, Los Angeles, Lpath, Inc.*

1:00 Q14 **628.25** ▲ Effects of moderate traumatic brain injury on creatine phosphokinase enzyme function in a time dependent manner. J. W. OVERBAY*; T. T. REED. *Eastern Kentucky Univ.*

2:00 Q15 **628.26** Sound evoked biceps myogenic potentials in the upper limb muscles of chronic hemiparetic stroke subjects. D. M. MILLER*; P. CONAWAY; W. Z. RYMER. *Rehabil. Inst. of Chicago, Northwestern Univ., Northwestern Univ.*

POSTER

629. Spinal Cord Injury III

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 Q16 **629.01** Expression patterns of glial cell-derived neurotrophic factor, vascular endothelial growth factor and their receptors after rat spinal cord injury. M. ENOMOTO*; R. YAMASHITA; M. UKEGAWA; H. KABURAGI; T. HIRAI; K. YAGISHITA; A. OKAWA. *Tokyo Med. & Dent. Univ.*

2:00 Q17 **629.02** Nano drug delivery systems specifically target subsets of neurons and effectively promote neurite outgrowth. R. AMMASSAM VEETTIL*; D. HYNDS; S. GHOSH; T. MCALLISTER. *Texas Woman's Univ., The Southeast Missouri State Univ.*

3:00 Q18 **629.03** STAT3 dependent signaling regulates astroglia proliferation, radial glia marker expression, elongated process formation and association that are relevant for glial scar border formation. I. B. WANNER*; J. LEVINE; B. SCHWARTZ; J. ALJUMAILY; M. V. SOFRONIEW. *UCLA, UCLA, UCLA.*

4:00 R1 **629.04** Protect the spinal cord microvasculature under the chronic and progressive compression of the cervical spinal cord. S. K. KARADIMAS*; A. LALIBERTE; M. FEHLINGS. *Toronto Western Hospital, UHN.*

1:00 R2 **629.05** Neuronal uptake of tunable nanocarriers and their effect on axon growth. S. SEBASTIAN*; D. HYNDS; S. GHOSH; T. MCALLISTER. *Texas Woman's Univ., Southeast Missouri State Univ.*

2:00 R3 **629.06** Epigenetically modulating chromatin by histone deacetylase inhibition promotes functional recovery after spinal cord injury. A. PETIT*; T. MENG; E. M. YORK; C. MCSHANE; J. LIU; G. BOCK; W. TETZLAFF; J. ROSKAMS. *Life Sci. Inst. and Icord, Univ. of British Columbia, ICORD, Life Sci. Inst. and Brain Res. Centre, Univ. of British Columbia, Life Sci. Inst. and Brain Res. Centre, Univ. of British Columbia.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 R4 **629.07** Elevated circulating inflammatory mediators in acute traumatic spinal cord injury patients. O. BLOOM*; A. STEIN; N. JASSAL; D. MCCARTHY; B. HAHN; R. CHUGH; M. SHATZER; P. DAVIES; M. BANK. *Feinstein Institute, Hofstra North Shore LIJ Sch. of Med., Hofstra North Shore-LIJ Hlth. Syst., Hofstra North Shore-Long Island Jewish Hlth. Syst., North Shore-Long Island Jewish Hlth. Syst., Feinstein Inst. for Med. Res., The North Shore-Long Island Jewish Hlth. Syst.*

4:00 R5 **629.08** Iodine-doped poly-pyrrole implants after spinal cord injury: A NMR image evaluation of nerve tissue response. C. RIOS*; A. DIAZ-RUIZ; H. SALGADO-CEBALLOS; R. OLAYO; J. MORALES; G. OLAYO; G. CRUZ; E. ROLDAN; R. MONDRAGON-LOZANO. *Natl. Inst. Neurology, Neurosurg, Univ. Autonoma Metropolitana, Natl. Inst. Neurology, Neurosurg, Inst. Mexicano del Seguro Social, Univ. Autonoma Metropolitana, Inst. Nacional de Investigaciones Nucleares, Magnetic Resonance Unit. Medica Sur Clin. & Fndn.*

1:00 R6 **629.09** Delayed grafting of autologous neurotrophin producing fibroblasts improves stepping in the spinal cat. A. J. KRUPKA*; M. OBROCKA; B. T. HIMES; I. FISCHER; M. A. LEMAY. *Drexel Univ. Col. of Med.*

2:00 R7 **629.10** Identification of pathways related to ketogenic diet-induced beneficial functional and neuroprotective effects following SCI: A microarray gene expression approach. W. TETZLAFF*; F. STREIJGER; J. ZHU; J. LIU; A. HAEGERT; S. LEBIHAN; B. K. KWON. *Univ. of British Columbia, Lab. for Advanced Genome Analysis, Vancouver Prostate Ctr., Combined Neurosurgical and Orthopaedic Spine Program (CNOSP), Dept. of Orthopaedics, Univ. of British Columbia.*

3:00 R8 **629.11** Intraparenchymal spinal cord microdialysis in unanaesthetized freely moving pigs following thoracic spinal cord injury. E. B. OKON*; J. H. T. LEE; F. STREIJGER; N. MANOUCHEHRI; L. M. ANDERSON; B. K. KWON. *Univ. British Columbia, Univ. British Columbia.*

4:00 R9 **629.12** Connectivity between left and right VPL in thalamus affects reorganization of somatosensory projections after spinal hemisection in the adult rat. L. LIANG; L. M. MENDELL*. *Stony Brook Univ., Stony Brook Uiniversity.*

1:00 R10 **629.13** ▲ Granulocyte colony-stimulation factor prevents deterioration of motor function in rats with chronic compression of the spinal cord. T. YOSHIZUMI*; H. MURATA; H. TAKASE; R. KUROKAWA; H. KANNO; P. KIM; N. KAWAHARA. *Dept. of Neurolog. Surgery, Yokohama City Univ. Grad. Sch. of, Dept. of Neurosurgery, Dokkyo Med. Univ., Dept. of Neurosurgery, Dokkyo Med. Univ.*

2:00 S1 **629.14** Effects of ulnar nerve stimulation on modulation of multi-segmental monosynaptic responses from leg muscles: Method of investigation of long propriospinal pathways. D. A. ATKINSON*; D. G. SAYENKO; K. M. GURLEY; V. SMITH; C. K. FERREIRA; C. A. ANGELI; S. J. HARKEMA. *Univ. of Louisville, Frazier Rehab Inst., Univ. of Louisville.*

3:00 S2 **629.15** Electrophysiological assessment of functional changes in the spinal cord after cervical contusion injury: Short term and long term damage accompanied by plasticity. A. TOFT*; S. HABIB; J. S. RIDDELL. *Univ. of Glasgow.*

4:00 S3 **629.16** Characterizing white matter damage in porcine spinal cord with quantitative MRI and histology. F. STREIJGER*; J. H. T. LEE; N. MANOUCHEHRI; L. ANDERSON; D. RUDKO; G. A. DEKABAN; B. K. KWON. *ICORD, UBC, Imaging Res. Laboratories, Robarts Res. Institute, Univ. of Western Ontario, Robarts Res. Institute, Univ. of Western Ontario, Combined Neurosurgical and Orthopaedic Spine Program (CNOSP), Dept. of Orthopaedics, Univ. of British Columbia.*

1:00 S4 **629.17** Spinal cord pressure monitoring in response to residual compression and decompression in a porcine model of acute SCI. R. REZATABANFAR; J. H. T. LEE; F. STREIJGER; C. DENNISON; J. SOICHER; P. A. CRIPTON; B. K. KWON*. *ICORD, UBC, Orthopaedic and Injury Biomechanics Group, Univ. of British Columbia, Departments of Mechanical Engin. and Orthopaedics, Univ. of British Columbia, ICORD, UBC.*

2:00 S5 **629.18** Output properties of the cortical hindlimb motor area in spinal cord-injured rats. S. B. FROST*; C. DUNHAM; D. KRIZSAN-AGBAS; M. K. WINTER; J. MERIWETHER; S. BARBAY; D. GUGGENMOS; R. J. NUDO. *Univ. Kansas Med. Ctr., Univ. Kansas Med. Ctr., Univ. Kansas Med. Ctr., Univ. Kansas Med. Ctr.*

3:00 S6 **629.19** Longitudinal electrophysiological assessment after spinal cord injury: Transcranial magnetic stimulation versus direct current stimulation. C. KATHE*; M. FLEMING; D. NEWHAM; S. MCMAHON; L. MOON. *King's Col. London, King's Col. London.*

4:00 S7 **629.20** A comparison of the cellular inflammatory response in cerebrospinal fluid in a porcine model of SCI and acutely injured SCI patients. G. GHOLAMREZAEI*; J. H. T. LEE; F. STREIJGER; A. K. RUSSELL; N. MANOUCHEHRI; L. C. WEAVER; G. A. DEKABAN; B. K. KWON. *ICORD, UBC, Robarts Res. Institute, Univ. of Western Ontario, Combined Neurosurgical and Orthopaedic Spine Program (CNOSP), Dept. of Orthopaedics, Univ. of British Columbia.*

1:00 S8 **629.21** ● Systemic oxytocin stimulates contractions in models of neurogenic bladder. T. J. NESS*; C. L. SHEPARD; M. D. ROGERS; C. DEWITTE; C. L. FLOYD; M. T. ROBBINS. *Univ. Alabama Birmingham, Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham, Univ. of Alabama at Birmingham.*

2:00 S9 **629.22** Exposure to spinal resonance frequency following spinal cord injury and the effect on functional recovery. N. MANOUCHEHRI*; J. H. T. LEE; F. STREIJGER; L. M. ANDERSON; E. B. OKON; A. K. RUSSELL; J. D. CHAK; D. DRESSLER; A. D. MELNYK; P. A. CRIPTON; B. K. KWON. *UBC, UBC, Combined Neurosurgical and Orthopaedics Spine Program.*

3:00 S10 **629.23** Hyperglycemia-induced microglial overactivation deteriorates the secondary injury via NF-κB pathway after spinal cord injury. K. KOBAYAKAWA*; H. SAIWAI; H. KUMAMARU; K. KUBOTA; Y. OHKAWA; K. SHIBA; K. YOKOTA; Y. IWAMOTO; S. OKADA. *Kyushu Univ., Kyushu Univ., Spinal Injuries Ctr.*

4:00 S11 **629.24** Functional recovery after spinal cord injury by positively enhancing integrin dynamics. L. CARLSTROM*; T. R. CHEEVER; H. L. SCHOENFUSS; M. M. PAINTER; J. R. HENLEY. *Mayo Clin., St. Cloud State Univ.*

1:00 S12 **629.25** Establishment of clinically relevant models of spinal cord gliomas in the rat. A. E. ROPPER; X. ZENG*; H. HARAGOPAL; J. E. ANDERSON; H. J. LEE; S. U. KIM; Y. D. TENG. *Brigham and Women's Hospital, Harvard Med. Sch., Veterans Affairs Boston Healthcare Syst., Chung-Ang Univ. Col. of Med., Univ. of British Columbia, Harvard Med. School/Spaulding Rehabil. Hosp.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 S13 **629.26** The effect of direct reprogrammed neural stem cells on the recovery of spinal cord injured rats. J. KIM*; J. HONG; S. LEE; D. HAN; J. HYUN. *Dankook Univ., Inst. of Tissue Regeneration Engineering, Dankook Univ., Dept. of Stem Cell Biology, Sch. of Medicine, Konkuk Univ., Dept. of Animal Biotechnology, Konkuk Univ., Dept. of Rehabil. Medicine, Dankook Univ. Col. of Med.*

3:00 S14 **629.27** Neural stem cell transplantation Improves forelimb function and tissue integrity of the injured spinal cord in a novel model of cervical injury. J. T. WILCOX*; K. SATKUNENDRARAJAH; Y. NASIRZADEH; J. ZUCCATO; F. NASSIRI; M. G. FEHLINGS. *Univ. of Toronto, Toronto Western Res. Inst., Univ. of Toronto.*

4:00 S15 **629.28** Human neural stem cell grafts into monkey spinal cord injury: Neuronal differentiation and profuse long-distance axon growth. E. S. ROSENZWEIG*; J. H. BROCK; P. LU; J. L. WEBER; S. C. STRAND; R. MOSEANKO; S. HAWBECKER; Y. S. NOUT; M. S. BEATTIE; J. C. BRESNAHAN; M. H. TUSZYNSKI. *UCSD, Veteran's Admin. Med. Ctr., California Natl. Primate Res. Center, Univ. of California, Davis, California State Polytechnic University, Pomona, Univ. of California, San Francisco.*

1:00 S16 **629.29** Dendritic spine remodeling after SCI: a motor engram for spasticity. A. M. TAN*; S. BANDARU; P. ZHAO; S. G. WAXMAN. *Yale Univ., Hopkins Sch.*

POSTER

630. Neurotoxicity and Cell Death Mechanisms

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 S17 **630.01** Prr7 is a novel postsynaptic protein that regulates cJun protein levels. D. SAVARIEGO*; M. HRDINKA; M. KREUTZ; B. A. JORDAN. *Albert Einstein Col. of Med., Leibniz Inst. for Neurobio., Albert Einstein Col. of Med.*

2:00 S18 **630.02** ● Hnrnp a1 point mutation-induced neuronal cell death: Neurotoxic properties of aggregated hnrnp a1 protein. S. LEE*; Y. SHIN; M. C. LEVIN. *Univ. of Tennessee, Veterans Affairs Med. Ctr.*

3:00 T1 **630.03** Ubiquitin–independent proteasomal degradation and calpain cleavage of p35, regulatory subunit of Cdk5. T. TAKASUGI*; S. MINEGISHI; H. KOBAYASHI; T. SAITO; A. ASADA; H. KAWAHARA; S. HISANAGA. *Tokyo Metropolitan Univercity.*

4:00 T2 **630.04** Absence of HSP70 favors protein aggregation in mouse embryonic fibroblasts. V. G. CHITTOOR*; S. LEE; A. JUDGE; L. NOTTERPEK. *Univ. of Florida, Univ. of Florida, Univ. of Florida.*

1:00 T3 **630.05** Spectral changes of the fluorescent nuclear dye acridine orange to measure early cell death. J. R. PLEMEL*; I. MICU; M. B. KEOUGH; V. W. YONG; P. K. STYS. *Univ. of Calgary.*

2:00 T4 **630.06** Role of CaMKII in CXCR4-mediated hippocampal cell death. R. BRAGG*, III; J. K. ROSE. *Western Washington Univ.*

3:00 T5 **630.07** Structure-activity analysis of the neuroprotective effects of chlorogenic acid and its metabolites against mechanistically distinct cell death-inducing agents. F. I. TARAM; A. N. WINTER; D. A. LINSEMAN*. *Univ. of Denver.*

4:00 T6 **630.08** Polyglutamine expansion affects morphology of the endoplasmic reticulum-mitochondria contact site, initiating cell death. M. UEDA*; S. LI; M. ITOH; K. OHTA; M. WANG; H. CHEN; K. YAMAGUCHI; K. KUWATA; M. HAYAKAWA; Y. HIDA; T. NAKAGAWA *. *Gifu Univ. Grad. Sch. of Medcine, Gifu Univ. Grad. Sch. of Medcine, Gifu University, United Grad. Sch. of Drug Discovery and Med. Information Sci.*

1:00 T7 **630.09** Inhibitors of necroptosis and autophagy selectively attenuate rapidly triggered NMDA-induced neuronal death in cultured cortical neurons. J. KIM*; S. HWANG. *Chonnam Nat'l Univ. Med. Sch.*

2:00 T8 **630.10** A mechanism of GAPDH aggregates-elicited cell death under nitric oxide in SH-SY5Y cells. T. KUBO*; H. NAKAJIMA; M. ITAKURA; A. KANESHIGE; Y. AZUMA; T. TAKEUCHI. *Osaka Prefecture Univ., Osaka Prefecture Univ.*

3:00 T9 **630.11** Geranylgeranylacetone protects against hydrogen peroxide-induced neuronal cell death in sh-sy5y cells. J. BAN*; Y. KIM. *Dankook Univ.*

4:00 T10 **630.12** The role of reciprocal activation of cAbl and Mst1 in the oxidative death of cultured astrocytes. B. SEO*; S. LEE; J. KOH. *Asan Inst. For Life Sciences, Univ. of Ulsan, Asan medical center.*

1:00 T11 **630.13** ▲ Influence of resveratrol on LC3-knockdown undifferentiated and differentiated PC12 cells. M. MORIMOTO; N. HAYAKAWA; M. SHIBATA; M. KOIKE; Y. UCHIYAMA; T. GOTOW*. *Koshien University, Col. of Nutr., Fukushima Med. Univ. Sch. Med., Niigata Univ. Grad. Sch. Med. Dent. Sci., Juntendo Univ. Grad. Sch. Med.*

2:00 T12 **630.14** Calcium-binding protein regulation in retinal degeneration induced by mechanical trauma. F. C. ZUZARTE*; V. PASCHON; G. S. V. HIGA; L. T. WALTER; E. DE SOUSA; A. H. KIHARA. *Federal Univ. of Abc.*

3:00 T13 **630.15** ▲ Calpain activation in Tributyltin neurotoxicity. M. S. LINDSEY*; B. P. VOHRA. *Univ. of Central Arknasas, Univ. of Central Arknasas.*

4:00 T14 **630.16** Melatonin attenuates dexamethasone toxicity-induced cytosolic calcium overload and mitochondrial dynamics disturbance in neuroblastoma SH-SY5Y cultured cells. W. SUWANJANG*; A. ABRAMOV; K. CHARNGKAEW; P. GOVITRAPONG; B. CHETSAWANG. *Res. Ctr. For Neuroscience, Inst. of Mol. Biosciences, Mahidol Un, Inst. of Neurology, Dept. of Mol. Neuroscience, Univ. Col. London, Fac. of Med. Siriraj Hosp., Res. Ctr. For Neuroscience, Inst. of Mol. Biosciences, Mahidol Univ.*

1:00 T15 **630.17** Neuroinflammatory parp-1 pathways in ethanol-dependent neurodegeneration: Suppression by omega-3 fatty acid. M. A. COLLINS*; N. TAJUDDIN; K. MOON; E. J. NEAFSEY; K. NIXON; H. KIM. *Loyola Univ. Chicago, Univ. of Kentucky, NIAAA.*

2:00 T16 **630.18** Recurrent apnea results in DNA strand breaks in hypoglossal motoneurons in *in vivo* rats. S. J. FUNG; M. XI; J. ZHANG; S. SAMPOGNA; J. LOPATTO; M. H. CHASE*. *Websciences Intl., VA Greater Los Angeles Healthcare Syst., UCLA Sch. of Med.*

3:00 T17 **630.19** Cilostazol protects cultured neurons, astrocytes, and pericytes against zinc-induced cell death. H. KIM*; T. KIM; J. KOH. *Asan Inst. For Life Sci., Asan medical center.*

4:00 T18 **630.20** Differential regulation of fatty acid binding proteins under palmitic acid-induced lipotoxicity in rat primary schwann cells. M. A. SERRANO ILLAN*; M. DESCORBETH; M. DE LEON. *Loma Linda Univ., Loma Linda Univ.*

● Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 U1 **630.21** Antioxidant defence systems and senescence markers in HIV-1 transgenic rat brain. G. SCAPAGNINI*; S. DAVINELLI; F. J. DENARO; S. CURRELI; F. BENEDETTI; S. KRISHNAN; J. L. BRYANT; D. ZELLA. *Univ. Molise, Inst. of Human Virology, Sch. of Medicine, Univ. of Maryland, Morgan State Univ.*

2:00 U2 **630.22** Paraneoplastic cerebellar degeneration: Auto-antibodies cause damage to Purkinje cells by changing the calcium homeostasis. M. SCHUBERT*; T. EICHLER; M. HAUGEN; C. A. VEDELER. *Dept. of Clin. Med. (K1); Univ. of Bergen, Neurology, Haukeland Univ. Hosp.*

3:00 U3 **630.23** Blockade of Prostaglandin F2-alpha FP receptor prevents lyzed red blood cell and hemin neurotoxicity. S. MOHAN*; S. NARUMIYA; S. DORE. *CTRND, Univ. of Florida Col. of Med., Kyoto Univ., CTRND, Univ. of Florida Col. of Med.*

4:00 U4 **630.24** Differential impact of ammonia on glutamatergic neurotransmission in a model of hepatic encephalopathy. S. WEN; A. SCHROETER; A. MÖLDERS; N. HARMEL; N. KLOECKER*. *Univ. of Düsseldorf, Med. Fac.*

1:00 U5 **630.25** Downregulation of miR-23a and miR-27a induces caspase-dependent and -independent neuronal apoptosis. B. SABIRZHANOV*; B. A. STOICA; M. HANSCOM; D. LOANE; S. DORSEY; A. FADEN. *Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Nursing.*

2:00 U6 **630.26** IP6K2 regulates the stability and activity of DNA-PK/ATM, thereby mediating p53 dependent cell death. F. RAO*; J. XU; R. XU; J. CHA; S. H. SNYDER. *Johns Hopkins Univ. Sch. of Med.*

3:00 U7 **630.27** Ionotropic Glutamate Receptors promote radioresistance of glioblastoma cells by increasing DNA repair capacity. A. G. LÄNGLE; K. MERK; B. LAUBE*. *TU Darmstadt.*

4:00 U8 **630.28** Exercise reverses ceramide induced cognitive decline. C. DUFFY; V. MAVANJI; M. R. LITTLE; E. E. NOBLE; T. A. BUTTERICK-PETERSON; C. M. KOTZ; C. J. BILLINGTON; C. WANG*. *VA Med. Ctr., Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Minnesota Obesity Ctr., Univ. of Minnesota.*

1:00 U9 **630.29** The effect of atypical antipsychotics on event-related potentials according to schizotypal personality traits. O. MOHAMED ALI*; A. SLIKHANIAN; A. FERNANDEZ CRUZ; I. WALPOLA; J. DEBRUILLE. *McGill University, Douglas Mental Hlth. Univ. Inst., McGill Univ., McGill University, Douglas Mental Hlth. Univ. Inst., McGill University, Douglas Mental Hlth. Univ. Inst.*

POSTER

631. Neuro-Oncology II

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 U10 **631.01** ▲ Analysis of BRAF and IDH1 mutations in central nervous system (CNS) tumors supports pediatric tumor classification. M. M. GIERKE*; J. SPERVESLAGE; M. EBINGER; M. U. SCHUHMANN; J. SCHITTENHELM. *Univ. Hosp., Univ. Hosp., Univ. Hosp., Univ. Hosp.*

2:00 U11 **631.02** Targeting the α5 nicotinic acetylcholine receptor (nachr) subunit as a treatment for neuroblastoma. V. OCHOA*; R. NISHI; L. HANSFORD; D. KAPLAN. *Univ. Vermont, Univ. of Vermont, Hosp. for Sick Children and Univ. of Toronto.*

3:00 U12 **631.03** Metabolomic analysis of brain tumor grade with proton magnetic resonance spectroscopy *Ex vivi:* Potential role of glutamate in tumorigenesis. C. D. HATTAWAY; M. K. TRIVEDI; F. GHOUDDOUSSI; S. MITTAL; M. P. GALLOWAY*. *Wayne State Univ. Sch. Med., Wayne State Univ. Sch. Med.*

4:00 U13 **631.04** Delivery of targeted natural killer cells to the brain using focused ultrasound mediated blood-brain barrier disruption for treatment of breast metastasis. R. ALKINS; A. BURGESS; M. GANGULY; G. FRANCIA; R. KERBEL; W. WELS; K. HYNYNEN*. *Sunnybrook Res. Inst., Univ. of Toronto, Sunnybrook Res. Inst., Univ. of Frankfurt, Sunnybrook Hlth. Sci. Ctr.*

1:00 U14 **631.05** ● Brain-TAMs targeting delivery of nanocomplexes for glioma specific therapy. Y. TAO; X. WANG; T. THOMAS; H. DOU*. *Texas Tech. Univ. Hlth. Sci. Ctr. (TTUHSC).*

2:00 U15 **631.06** The role of CBP in cerebellar granule cells during development and tumorigenesis. D. GRAMMEL*; B. LUTZ; U. SCHÜLLER. *Ludwig-maximilians-University Munich, 2Institute of Physiological Chemistry, Univ. Med. Ctr. of the Johannes Gutenberg University, Mainz, Germany.*

3:00 U16 **631.07** Pronounced memory deficits as early as 28 days post 12 gray whole brain irradiation. J. J. MATCHYNSKI*; S. L. BROWN; J. J. MATYAS; B. HAGERMAN; G. L. DUNBAR; K. JENROW. *Rochester Col., Central Michigan Univ., Henry Ford Hosp., Wayne State Univ., Henry Ford Hosp., Central Michigan Univ. Col. of Med., Field Neurosciences Inst.*

4:00 U17 **631.08** Will the true sigma-2 receptor please stand up? A. E. RUOHO*; L. W. GUO; A. R. HAJIPOUR; K. KARAOGLU; T. A. MAVLYUTOV; U. B. CHU; J. YANG. *Univ. of Wisconsin, Univ. of Wisconsin, Univ. of Wisconsin.*

1:00 U18 **631.09** HuR dependent regulation of centrosomes in U251 cells. N. FILIPPOVA*; X. YANG; L. B. NABORS. *Univ. of Alabama At Birmingham (UAB).*

2:00 V1 **631.10** The glycoprotein, decorin, is a novel anti-proliferative treatment for glioblastoma multiforme. L. J. HILL*; H. SHEREEF; K. HOSSAIN-IBRAHIM; M. BERRY; A. LOGAN; G. S. CRUICKSHANK. *Univ. of Birmingham, The Newcastle upon Tyne Hosp. NHS Fndn. Trust, Univ. Hosp. Birmingham.*

3:00 V2 **631.11** Factors associated with the prognosis of pituitary adenomas after surgical resection. W. LI*; M. ZHANG; T. JI; W. LIU. *Shenzhen 2nd People's Hosp. (shenzhen Univ. Hospital) Neurosurg. Depar, Shenzhen 2nd People's Hosp. (Shezhen Univ. Hospital).*

4:00 V3 **631.12** Deconvolving tumor heterogeneity in glioblastoma multiforme through gene coexpression analysis. S. J. SHELTON*; M. C. OLDHAM. *Univ. of California San Francisco.*

1:00 V4 **631.13** CD5 threonine-38 phosphorylation in lymphocytes of patients with brain tumor and multiple sclerosis. M. MADAROVA; R. MUCHA; S. HRESKO; J. SZILASIOVA; Z. GDOVINOVA; T. DOBRANSKY*. *DB Biotech, Dept. of Neurology, Safarik Univ.*

2:00 V5 **631.14** Effects of the chemotherapeutic drug sunitinib on adult hippocampal neurogenesis in mice: an animal model of chemobrain. T. ALKAM; C. B. FARROKHI; L. LACAYO; J. VIT; S. M. CARMONA; M. MASTALI; R. N. PECHNICK*. *Western Univ. of Hlth. Sci., Salk Inst. for Biol. Studies, Cedars-Sinai Med. Ctr., Cedars-Sinai Med. Ctr.*

3:00 V6 **631.15** ● ▲ Increase efficacy of glioblastoma multiforme therapy. K. CHOY*; K. SUGAYA. *Univ. of Central Florida.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

632. Schizophrenia and Bipolar Disorder: Animal Models IV

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 V7 **632.01** Effects of lithium on total GSK3β and phosphorylated GSK3β (serine 9) in the rat striatum. S. RASMUSSEN*; M. MCCRADY; A. MITRO; M. SICKAND; L. MACGILLIVRAY; P. ROSEBUSH; M. MAZUREK. *McMaster Univ., McGill Univ., Univ. of Ottawa, Univ. of Toronto.*

2:00 V8 **632.02** Neurophysiological basis of context processing dysfunction in prefrontal and parietal cortex of nonhuman primates in a pharmacological model of schizophrenia. R. K. BLACKMAN*; S. SAKELLARDI; A. W. MACDONALD, III; M. V. CHAFEE. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

3:00 V9 **632.03** Further behavioral and genetic analysis of the Madison mania model. C. M. SAUL*; S. A. STEVENSON; S. C. GAMMIE. *Univ. of Wisconsin–Madison.*

4:00 V10 **632.04** ▲ Postnatal ablation of mGluR5 in parvalbumin-positive fast-spiking interneurons results in alterations of auditory event-related potentials. A. J. KAPPE*; A. C. METZLER; M. P. MENDOZA; K. Y. TUPPER; E. A. MUKAMEL; X. WANG; T. J. SEJNOWSKI; M. M. BEHRENS. *Salk Inst. For Biol. Studies, UCSD.*

1:00 V11 **632.05** Vulnerability to a hallucinogenic drug in PACAP heterozygous mice is accompanied by altered neural response in the somatosensory cortex. K. HAZAMA*; A. KASAI; K. UETSUKI; N. ENCHO; A. HAYATA-TAKANO; N. SHINTANI; A. BABA; H. HASHIMOTO. *Osaka Univ., Osaka Univ., Osaka Univ., Osaka Univ., Hyogo Univ. of Hlth. Sci., Osaka Univ.*

2:00 V12 **632.06** Androgens mediate tics and sensorimotor gating in the D1CT-7 animal model of Tourette Syndrome. S. C. GODAR*; L. J. MOSHER; F. H. BURTON; M. BORTOLATO. *Univ. of Kansas, Univ. of Minnesota.*

3:00 W1 **632.07** Aberrant expression of microRNA in blood plasma and CA1 of adult animals exposed to maternal immune activation. K. A. OVEREEM*; A. R. WOLFF; D. K. BILKEY; J. M. WILLIAMS. *Dept. of Anat., Univ. of Otago.*

4:00 W2 **632.08** Prenatal stress decreases social interaction and increases TET and DNMT expression indicative of a schizophrenia-like phenotype in mice. A. GUIDOTTI*; E. DONG; F. MATRISCIANO; P. TUETING; D. GRAYSON. *Univ. Illinois Chicago, Univ. of Illinois at Chicago.*

1:00 W3 **632.09** Reserpine treatment ablates the deficits of sensorimotor gating induced by dopamine D3 receptor activation in Sprague-Dawley, but not Long-Evans rats. L. J. MOSHER*; R. FRAU; S. C. GODAR; P. DEVOTO; M. BORTOLATO. *Kansas Univ., Univ. of Cagliari.*

2:00 W4 **632.10** Hippocampal synaptic plasticity is critical in the effect of ketamine in depressive-like behavior and psychotic state. Q. ZHOU*; L. XU; T. DUAN; L. JING; J. TAN. *Kunming Inst. of Zoology, Chinese Acad. of Sci., Sch. of Life Sciences, Univ. of Sci. and Technol. of China,.*

3:00 W5 **632.11** Antipsychotic-like properties of antiandrogenic drugs: Focus on dopaminergic system. M. BORTOLATO*; R. FRAU; V. BINI; R. PES; A. PARDU; P. DEVOTO. *Univ. of Kansas, Tourette Syndrome Ctr., Univ. of Cagliari.*

4:00 W6 **632.12** Juvenile antioxidant treatment prevents adult deficits in a developmental model of schizophrenia. D. S. COUNOTTE*; J. CABUNGCAL; E. LEWIS; E. SULLIVAN; P. PIANTADOSI; M. CUENOD; K. Q. DO; P. O'DONNELL. *Univ. of Maryland Baltimore, Univ. of Lausanne.*

1:00 W7 **632.13** ● Effects of ketamine on prediction error in mice: Relevance to psychosis. C. A. GIANESSI*; S. L. QUICK; P. R. CORLETT; J. R. TAYLOR. *Yale Interdepartmental Neurosci. Program, Yale Univ. Sch. of Med., Yale Univ. Sch. of Med.*

2:00 W8 **632.14** Predictive validity of GluA1-knockout mouse line for mania-related phenotype. M. MAKSIMOVIC*; O. Y. VEKOVISCHEVA; T. AITTA-AHO; E. R. KORPI. *Inst. of Biomedicine.*

3:00 W9 **632.15** Use of cell-specific RNA interference to model schizophrenia related cortical circuit abnormalities. L. CHEN*; J. T. MCKENNA; J. M. MCNALLY; R. E. BROWN. *VABHS and Harvard Med. Sch.*

4:00 W10 **632.16** Hippocampal Cholinergic Neurostimulating Peptide Precursor as a potential candidate gene responsible for bipolar disorder. D. KATO*; M. MIZUNO; T. KANAMORI; T. TOYODA; N. MATSUKAWA. *Nagoya City Univ.*

1:00 W11 **632.17** Discriminative stimulus properties of the typical antipsychotic haloperidol in C57BL/6 mice. T. J. DONAHUE*; K. A. WEBSTER; T. M. HILLHOUSE; E. O. DE OLIVEIRA; J. H. PORTER. *Virginia Commonwealth Univ., Georgetown Univ.*

2:00 W12 **632.18** WIN55,212-2, but not delta-9 tetrahydrocannabinol, has an aversive effect in animals with a schizophrenia-like phenotype. A. GALLO*; C. BOUCHARD; P. ROMPRÉ. *Univ. De Montréal, Univ. De Montréal, Concordia Univ.*

3:00 W13 **632.19** Juvenile antioxidant treatment impacts upon prefrontal cortical abnormalities in a rodent model of schizophrenia. G. G. CALHOON*; H. A. TEJEDA; P. O'DONNELL. *Univ. of MD, Baltimore, Univ. of Maryland, Baltimore.*

4:00 W14 **632.20** Pallidal GAD in the vacuous chewing movement rat model of tardive dyskinesia. S. E. BACHUS*. *George Mason Univ.*

1:00 W15 **632.21** Exploring the neuropsychological processes behind social withdrawal in the sub-chronic PCP rat model of schizophrenia. A. SEILLIER*; A. GIUFFRIDA. *UTHSCSA.*

2:00 W16 **632.22** Towards the characterization of the role of neurosteroids in pathological gambling: Clinical and preclinical studies. R. PES*; A. T. FOX; L. J. MOSHER; S. C. GODAR; A. CANNAS; P. SOLLA; F. MARROSU; S. C. FOWLER; M. BORTOLATO. *Kansas Univ., Kansas Univ., Univ. of Kansas, Unive, Univ. of Cagliari, Univ. of Cagliari.*

3:00 W17 **632.23** Effects of high-frequency stimulation in the thalamic reticular nucleus on neonatal model of schizophrenia. V. M. MAGDALENO-MADRIGAL*; G. CONTRERAS-MURILLO; A. VALDÉS-CRUZ; R. FERNÁNDEZ-MAS; S. ALMAZÁN-ALVARADO; D. MARTÍNEZ-VARGAS; I. CAMACHO-ABREGO; J. V. NEGRETE-DÍAZ; G. FLORES. *Inst. Nacional De Psiquiatría Ramón De La Fuente Muñiz, Univ. Autónoma de Puebla.*

4:00 W18 **632.24** Allopregnanolone mediates manic-like outcomes of REM sleep deprivation. R. FRAU; V. BINI; A. PARDU; R. PES; F. ABBIATI; A. SOGGIU; P. RONCADA; D. CARUSO; P. DEVOTO*; M. BORTOLATO. *Dept. of Biomed. Sci., Tourette Syndrome Ctr., Univ. of Kansas, Univ. of Milan, Univ. of Milan, I.S.I. Spallanzani.*

1:00 X1 **632.25** ● Postnatal mGluR5 receptor ablation from parvalbumin-positive interneurons induced select impairments of relevance to schizophrenia pathophysiology. S. A. BARNES; T. J. SEJNOWSKI; M. M. BEHRENS; A. MARKOU*. *Univ. of California San Diego, Salk Inst. for Biol. Studies, Univ. of California San Diego.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 X2 **632.26** ● Quantitative EEG analyses in transgenic mice harboring the 22q11.2 microdeletion, a high risk CNV in schizophrenia. S. TAKILLAH; J. NAUDÉ; B. TESOLIN-DECROS; J. MARIANI; M. SPEDDING; E. SCHENKER; C. SEBBAN; P. FAURE*. *UMR 7102 NPA, UPMC et CNRS, 4 place Jussieu, 75005, Hôpital Charles Foix, Les Laboratoires Servier, 50, rue Carnot 92284, Inst. de Recherches Servier, 125 Chemin de Ronde, 78290, CNRS UMR 7102 Univ. Pierre et Marie Curie.*

3:00 X3 **632.27** Age-related distribution of parvalbumin-expressing GABAergic interneurons within the rat hippocampus and surrounding cortices. J. A. CORRIVEAU*; P. PUROHIT; J. J. CHROBAK. *Univ. of Connecticut.*

4:00 X4 **632.28** Impaired working memory by repeated neonatal MK-801 treatment is ameliorated by galantamine in adult rats. Y. SU*; R. HUANG; J. LI; X. WANG; T. SI. *Inst. of Mental Health, Peking Univ.*

1:00 X5 **632.29** EEG recordings from chronically implanted rats reveal circadian patterns in sleep spindles. L. M. CARRACEDO*; K. G. PHILLIPS; U. BARTSCH; A. P. MCCARTHY; D. O. KELLETT; W. F. SEIDEL; E. A. SHANKS; M. W. JONES; K. A. WAFFORD. *Lilly UK, Bristol Univ.*

2:00 X6 **632.30** Early ablation of mGluR5 receptor affects the maturation of parvalbumin interneurons: Consequences for synaptic transmission and plasticity in the hippocampus. A. PINTO-DUARTE*; M. BEHRENS; T. J. SEJNOWSKI. *The Salk Inst. For Biol. Studies and Howard Hughes Med. Inst., Fac. of Medicine, Univ. of Lisbon, Inst. of Mol. Med.*

POSTER

633. Alcohol and Development

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 X7 **633.01** Effects of prenatal and postnatal beer drinking on behavior and glial cells. G. BROLESE*; P. LUNARDI; N. CUNHA; C. BATASSINI; F. L. PEDROSO; D. ENGELKE; C. S. GONÇALVES. *UFRGS, UFRGS, UFRGS, UNIFESP, UFRGS.*

2:00 X8 **633.02** Corticotropin-releasing hormone (CRH) promoter methylation is altered in the offspring of animals that were exposed to alcohol during puberty. M. M. SZYMANSKA*; S. A. PRINS; T. R. PAK. *Loyola Univ. Med. Ctr.*

3:00 X9 **633.03** Operant ethanol self-administration in adolescent and adult male Long-Evans rats. J. M. DOHERTY*; R. A. GONZALES. *Univ. of Texas at Austin.*

4:00 X10 **633.04** Effects of a binge drinking ethanol administration protocol on the motor function of periadolescent rats. M. G. LAMONT; L. CHIBRIKOVA; C. ORR; S. HEWITT; J. T. WEBER*. *Mem. Univ. of Newfoundland.*

1:00 X11 **633.05** Dose and region dependent regulation of PKC- and PKMζ following adolescent ethanol exposure: Possible implications for ethanol's amnestic effects. J. L. SANTERRE; J. ROGOW; D. F. WERNER*. *Binghamton Univ.*

2:00 X12 **633.06** An animal model reveals initiating chronic drinking during adolescents predisposes for a life-time of heavy drinking: Understanding neurotrophin and behavioral adaption after long-term chronic ethanol exposure. W. N. STEWART*; L. M. SAVAGE. *Binghamton Univ.*

3:00 X13 **633.07** Risk preference and orbitofrontal cortex activity following voluntary ethanol consumption in adolescence. M. S. MCMURRAY*; L. R. AMODEO; A. M. SECRETO; J. D. ROITMAN. *Univ. of Illinois At Chicago.*

4:00 X14 **633.08** Neural representation of behavioral flexibility in the orbitofrontal cortex after early alcohol exposure. L. R. AMODEO*; M. S. MCMURRAY; A. SECRETO; J. D. ROITMAN. *Univ. of Illinois, Chicago.*

1:00 X15 **633.09** Adolescent binge-like ethanol exposure and its effect on the infralimbic prefrontal cortex's role in fear learning. A. J. LOPEZ*; R. VETRENO; F. T. CREWS; T. L. KASH. *Univ. of California, Irvine, Univ. of North Carolina - Chapel Hill.*

2:00 X16 **633.10** Measures of behavioral intoxication following voluntary ethanol self-administration in adolescent male and female Long-Evans rats. L. K. SHERRILL*; M. KANG; D. O'HEARN; J. M. GULLEY. *Univ. of Illinois, Urbana-Champaign, Univ. of Illinois, Urbana-Champaign.*

3:00 X17 **633.11** Effects of acute ethanol on glutamatergic neurotransmission in prefrontal cortex of awake adolescent and adult rats using enzyme based microelectrode amperometry. D. MISHRA; N. R. HARRISON; C. B. GONZALES; B. SCHILSTRÖM; A. K. KONRADSSON-GEUKEN*. *Karolinska Institutet.*

POSTER

634. Alcohol: Behavioral Effects

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 X18 **634.01** Planaria in behavioural toxicology: Ethanol and motor activity. C. N. NUSSEY; Y. N. HENDERSON; K. NORRIS; A. STILLAR; A. WEEKS; M. J. SAARI*. *Nipissing Univ.*

2:00 Y1 **634.02** The dopamine/ecdysteroid receptor DopEcR in ethanol-induced behavioral plasticity. G. P. ARANDA*; P. SABANDAL; Y. KIM; P. D. EVANS; K. HAN. *UTEP, The Inositide Lab, The Babraham Inst.*

3:00 Y2 **634.03** ▲ Effects of ethanol on startle habituation in adult zebrafish. D. VIRA; E. RANEY; R. BLASER*. *Univ. of San Diego.*

4:00 Y3 **634.04** The development of ivermectin (IVM) as a novel pharmacologic treatment for alcohol use disorders (AUDs). M. M. YARDLEY; M. LI; N. ARABIAN; L. ASATRYAN; N. HUYNH; S. G. LOUIE; M. NEELY; R. ALKANA; D. L. DAVIES*. *USC, USC.*

1:00 Y4 **634.05** The treatment of alcohol induced cognitive impairment and insomnia following chronic intermittent alcohol exposure with zolpidem (Ambien). W. B. GLEN*, JR; C. A. BLANCO-CENTURION; J. T. GASS; P. J. SHIROMANI; L. J. CHANDLER. *Med. Univ. of South Carolina, Ralph H. Johnson VA Med. Ctr.*

2:00 Y5 **634.06** NMDAR subunits and memantine-escalated aggression in ethanol-drinking mice. E. L. NEWMAN; M. TERUNUMA; J. F. DEBOLD; K. A. MICZEK*. *Tufts Univ., Tufts Univ. Sackler Sch. of Grad. Biomed. Sci.*

3:00 Y6 **634.07** ▲ Short term EtOH treatment in mice exhibits the same $GABA_A$ receptor-mediated behavioral changes seen in long-term EtOH treated Rats. S. WONG; A. NGUYEN; M. B. SCOTT; E. LY; R. W. OLSEN; J. LIANG*. *UCLA, David Geffen Sch. of Med. At UCLA.*

4:00 Y7 **634.08** Ethanol-induced impairments in contextual fear conditioning in adolescent female rats: Effect of estrogen. R. SIRCAR*; K. ISHIWARI. *The City Col. of New York, The Feinstein Inst. for Med. Res.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 Y8 **634.09** ▲ Effects of 5-HT2C receptor agonist Ro 60-0175 on the development and expression of ethanol-induced locomotor sensitization in rats. J. C. JIMÉNEZ*; J. ACOSTA-GARCÍA; J. MIRANDA-BARRIENTOS; A. SANDOVAL-SANCHEZ; A. BARRIENTOS-NORIEGA; L. CEDILLO-ZAVALETA; F. MIRANDA-HERRERA. *Univ. Nacional Autonoma De Mexico.*

2:00 Y9 **634.10** Chronic corticosterone blunts sensitivity to the interoceptive effects of alcohol: Implications for mGluR5 and maladaptive response in the nucleus accumbens. A. JARAMILLO*; K. FISHER; R. CANNADY; J. BESHEER. *Univ. of North Carolina at Chapel Hill.*

3:00 Y10 **634.11** Neural correlates of alcohol-induced reactive aggression. M. N. SMOLKA*; P. STERZER; G. GAN. *Technische Univ. Dresden, Charité.*

4:00 Z1 **634.12** The neuropeptide Y system in the mediation of acute effects of alcohol on anxiety- and depression related behavior in mice. A. AZIZ; A. THORSELL*. *Linköping Univ., Linköping Univ.*

1:00 Z2 **634.13** ● Withdrawal from binge drinking increases behavioral measures of anxiety and depression in mice. K. M. LEE*; R. S. WALTERMIRE; H. A. MCGREGOR; K. K. SZUMLINSKI. *Univ. of California At Santa Barbara.*

2:00 Z3 **634.14** Alcohol phenotype of mice with point mutations of mGluR5 affecting the phosphorylation of the Homer binding site. K. K. SZUMLINSKI*; D. MALINIAK; S. GOULDING; L. URHMAN; P. F. WORLEY. *Univ. California-Santa Barbara, Johns Hopkins Univ.*

3:00 Z4 **634.15** Moderate alcohol intoxication improves performance on the Multi-Source Interference Task (MSIT). S. R. FLETCHER*; M. AULAKH; C. EIERUD; J. LISINSKI; B. HAMILTON; S. LACONTE. *Virginia Tech. Carilion Sch. of Med.*

4:00 Z5 **634.16** Evaluating the effects of history of binge drinking on self-movement cue processing in an analogue of the food-hoarding paradigm. P. A. BLANKENSHIP; A. HAMDAOUI; J. TORRENCE; D. G. WALLACE*. *Northern Illinois Univ.*

POSTER

635. Addiction: Genetics and Treatment, Preclinical, and Clinical Studies

Theme C: Disorders of the Nervous System

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 Z6 **635.01** Can inactivation of the subthalamic nucleus help treating alcoholism? Y. PELLOUX*; C. BAUNEZ. *INT CNRS UMR7289.*

2:00 Z7 **635.02** Nucleosome repositioning as a novel mechanism for drug-induced epigenetic changes in the brain. A. N. BROWN*; J. H. DENNIS; P. H. BHIDE. *Florida State Univ., Florida State Univ., Ctr. for Brain Repair.*

3:00 Z8 **635.03** ● Deep repetitive Transcranial Magnetic Stimulation (rTMS) of the prefrontal cortex and the insula reduces nicotine addiction. L. DINUR-KLEIN; P. DANNON; O. ROZENBERG; M. KOTLER; A. ZANGEN*. *Ben-Gurion Univ., Beer Yaakov Mental Hlth. Ctr.*

4:00 Z9 **635.04** Substance use disorders and non-human primate 5-hydroxytryptamine receptor polymorphisms. J. M. WARD*; E. J. VALLENDER. *Harvard Med. Sch. / NEPRC.*

1:00 Z10 **635.05** Restoring glutamate homeostasis to prevent relapse in a rodent model of alcohol-seeking. B. STENNETT; L. A. KNACKSTEDT*. *Univ. of Florida.*

2:00 Z11 **635.06** Accreditation on knowledge of drugs in Mexican college students. N. J. CRUZ-ORTEGA; A. DÍAZ; E. M. BRAMBILA-COLOMBRES; A. R. NAVARRO-CRUZ; O. VERA-LÓPEZ; G. FLORES; H. A. RUBIO-ZAPATA; D. ESTRELLA-CASTILLO; S. TREVIÑO-MORA; P. AGUILAR-ALONSO*. *BUAP, BUAP, BUAP, Univ. Autónoma de Yucatán, BUAP.*

3:00 Z12 **635.07** Effects of the oral treatment with polyunsaturated fatty acids (PUFAs) of the omega 3 series in the nicotine craving. J. ZAPAROLI*; J. F. GALDURÓZ. *UNIFESP - Univ. Federal De São Paulo.*

4:00 Z13 **635.08** Determination of allelic expression of SNP rs1880676 in choline acetyltransferase gene with HeLa Cells. Z. YANG; C. LIN; S. WANG; C. SENEVIRATNE; J. WANG; M. D. LI*. *Univ. of Virginia, Shanxi Agr. Univ.*

1:00 Z14 **635.09** Acamprosate as a glutamate stabilizer in alcohol dependent subjects with european ancestory. D. J. HINTON*; M. A. FRYE; V. M. KARPYAK; O. A. ABULSEOUD; J. M. BIERNAKCA; L. J. GUNDERSON; S. E. FEEDER; D. A. MRAZEK; D. CHOI; J. D. PORT. *Mayo Clin. Col. of Med.*

2:00 Z15 **635.10** ● Predictive animal model for smoking cessation therapeutics. G. J. GATTO*; K. G. JORDAN; K. T. SZELIGA. *Biolucidation LLC.*

3:00 Z16 **635.11** Selectively-bred alcohol preferring rats with different genetic backgrounds have different avidity for nicotine. A. H. REZVANI*; T. K. LI; E. D. LEVIN; R. L. BELL; G. COLOMBO; L. LUMENG. *Duke Univ., Univ. of Indiana, C.N.R. Inst., Univ. of Indina.*

4:00 Z17 **635.12** Preclinical evaluations of mixed-function serotonergic compounds for the treatment of gambling disorders. A. L. PERSONS*; S. E. TEDFORD; T. C. NAPIER. *Rush Univ. Med. Ctr.*

1:00 Z18 **635.13** Differential regulation of locomotor activity to acute and chronic cocaine administration by acid-sensing ion channel 1a and 2 in adult mice. X. CHU*; Q. JIANG. *Univ. Missouri-Kansas City, Univ. of Missouri -Kansas City.*

POSTER

636. Auditory System: Perception, Cognition, and Action - Animal and Modeling Studies

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 AA1 **636.01** Causal role of primate auditory cortex in 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.*

2:00 AA2 **636.02** Auditory streaming in rhesus macaques. K. L. CHRISTISON-LAGAY*; Y. E. COHEN. *Perelman Sch. of Med. At the Univ. of Pennsylvania, Univ. of Pennsylvania.*

3:00 AA3 **636.03** Neural correlates of hearing in noise in macaque auditory cortex. S. BENNUR*; Y. E. COHEN. *Univ. of Pennsylvania.*

4:00 AA4 **636.04** ERK activation in primary auditory cortex reflects the motivational salience of an auditory CS. M. L. REMUS; O. H. RUIZ; C. C. WINKLER; E. THIELS*. *Carnegie Mellon Univ., Ctr. for the Neural Basis of Cognition, Univ. of Pittsburgh, Ctr. for Neurosci. Univ. of Pittsburgh.*

1:00 AA5 **636.05** Neural Correlates of auditory discriminations in the auditory cortex of behaving macaque monkeys. C. NG*; D. T. GRAY; J. A. OVERTON; G. H. RECANZONE. *Univ. of California.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 AA6 **636.06** Environmental images of sound stimulation induce stable cortical neuronal activity in the human and increase serotonin concentration in the mice. F. SHUTOH*; K. SUGIMOTO; K. YAMASHITA; S. YOSHIDA; S. HISANO. *Univ. Tsukuba, Univ. Tsukuba, Univ. Tsukuba.*

3:00 AA7 **636.07** Neural correlates of proactive interference in primate A1 during auditory short-term memory. J. BIGELOW*; B. ROSSI; I. ZDILAR; A. POREMBA. *Univ. of Iowa, Univ. of Iowa.*

4:00 AA8 **636.08** Stimulus quality modulates primate auditory recognition memory and PFC activity. B. N. ROSSI*; J. BIGELOW; B. PLAKKE; A. POREMBA. *Univ. of Iowa, Univ. Of Iowa, Univ. of Rochester Med. Ctr., Univ. of Iowa.*

1:00 AA9 **636.09** Modulation of evoked responses in mouse auditory cortex by behavioral state. B. RUMMELL; I. IOTCHEV; T. SIGURDSSON*. *Goethe Univ. Frankfurt.*

2:00 AA10 **636.10** Disruptive effects on neocortical processing by pulsed fMRI gradients: A modeling study in the auditory cortex. D. E. BEEMAN*, Jr; H. WACHTEL. *Univ. Colorado Boulder.*

3:00 AA11 **636.11** Frequency of spikes at different nuclei of the inferior colliculus and striatum in anesthetized rats: Investigation of the glutamatergic neural substract. L. MELO-THOMAS*; U. THOMAS. *Univ. Federal De Sao Paulo - UNIFESP, Thomas Recording GmbH.*

4:00 AA12 **636.12** Forward suppression in the medial nucleus of the trapezoid body - superior paraolivary nucleus (MNTB / SPON) circuit of the rat. F. GAO*; R. A. FELIX, II; A. S. BERREBI. *West Virginia Univ. Sch. of Med.*

1:00 AA13 **636.13** Categorical perception of speech sounds in awake behaving rat. E. J. STIPES; D. BEITER; D. M. GRAHAM; W. B. LEVY; L. C. GRAY; C. TENG*. *Univ. of Virginia, Franciscan Univ. of Steubenville, James Madison Univ.*

POSTER

637. Auditory System: Perception, Cognition, and Action - Human Studies

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 AA14 **637.01** ▲ (De-)Constructing the ERP: Phasic excitability changes measured by psychophysics. C. DAUBE; M. J. HENRY; J. OBLESER*. *Max Planck Inst. For Human Cognitive and Brain Sci.*

2:00 AA15 **637.02** Neural correlates of auditory perceptual awareness for sounds outside the focus of selective attention. A. R. DYKSTRA*; A. GRAMFORT; A. GUTSCHALK. *Universitätsklinikum Heidelberg, Inst. Mines-Telecom, Telecom ParisTech, CNRS LTCI, INRIA, Parietal team, CEA, NeuroSpin Ctr.*

3:00 AA16 **637.03** Pre-stimulus phase affects auditory perception during continuous-mode processing. M. J. HENRY*; B. HERRMANN; J. OBLESER. *Max Planck Inst. For Human Cognitive and Brain Sci.*

4:00 AA17 **637.04** TMS-induced changes of brain circuits involved in stimulus-driven auditory figure-ground segregation. E. N. NEEF*; C. SCHMIDT-SAMOA; M. WILKE. *Georg August Univ., Univ. Medicin Goettingen.*

1:00 AA18 **637.05** Discriminating an auditory “figure” from ground - An MEG study. S. TEKI; T. D. GRIFFITHS*; M. CHAIT. *Univ. Col. London, Inst. of Neurosci., Univ. Col. London.*

2:00 BB1 **637.06** Organization of human auditory cortex: Modulation of response patterns on the **POSTER**ior lateral superior temporal gyrus during a target detection task. M. STEINSCHNEIDER*; K. NOURSKI; H. OYA; H. KAWASAKI; M. HOWARD, III. Albert Einstein Med. Col., Univ. of Iowa, Univ. of Iowa.

3:00 BB2 **637.07** Attentional selection in a multi-speaker environment can be decoded from single-trial EEG. J. A. O’SULLIVAN*; A. J. POWER; N. MESGARANI; S. RAJARAM; B. G. SHINN-CUNNINGHAM; M. SLANEY; S. A. SHAMMA; E. C. LALOR. *Trinity Col., Univ. of Cambridge, Univ. of California, Boston Univ., Microsoft, Univ. of Maryland.*

4:00 BB3 **637.08** Enhanced neural synchrony between left auditory and premotor cortex is associated with successful phonetic categorization. J. ALHO*; F. LIN; M. SATO; M. SAMS; J. SCHWARTZ; H. TIITINEN; I. P. JÄÄSKELÄINEN. *Aalto Univ. Sch. of Sci., Natl. Taiwan Univ., CNRS & Grenoble Univ., Aalto Univ. Sch. of Sci., Aalto Univ. Sch. of Sci.*

1:00 BB4 **637.09** Intracranial recordings reveal spatial and temporal differences in the processing and categorization of speech. A. E. RHONE*; B. MCMURRAY; H. OYA; K. V. NOURSKI; H. KAWASAKI; M. A. HOWARD, III. *Univ. of Iowa, Univ. of Iowa.*

2:00 BB5 **637.10** Brain oscillations, cross-frequency coupling and the perception of spoken speech. R. E. MILLMAN*; S. JOHNSON; G. PRENDERGAST. *York Neuroimaging Centre, Univ. of York.*

3:00 BB6 **637.11** Speech statistics mediate the transformation from acoustic to word-level neural representations. M. K. LEONARD*; K. BOUCHARD; E. F. CHANG. *UCSF.*

4:00 BB7 **637.12** Spatiotemporal cortical representation of phonological units in continuous speech perception. R. XU*; C. SONG; B. HONG. *Tsinghua Univ.*

1:00 BB8 **637.13** In a multi-talker scene, degraded speech processing benefits less from attention than clean speech. J. M. RIMMELE*; E. M. ZION GOLUMBIC; E. SCHRÖGER; D. POEPPEL. *Dept. of Neurophysiol. and Pathophysiology, Columbia Univ. Col. of Physicians and Surgeons, Univ. of Leipzig Inst. of Psychology, New York Univ.*

2:00 BB9 **637.14** Sensitivity of the dorsal pre-motor cortex to rate of executed and heard sounds. A. SHUSTER*; R. MUKAMEL. *Tel Aviv Univ., Tel Aviv Univ.*

3:00 BB10 **637.15** Parametric analysis of BOLD fMRI signal implicates auditory dorsal stream in the processing of musical sequences. B. M. GREEN*; M. SAMS; I. P. JÄÄSKELÄINEN; J. P. RAUSCHECKER. *Georgetown Univ. Med. Ctr., Aalto University, Sch. of Sci.*

4:00 BB11 **637.16** Functionally defining the neural correlates of music processing. A. S. GREENBERG*; R. RANDALL. *Univ. of Wisconsin-Milwaukee, Carnegie Mellon Univ.*

1:00 BB12 **637.17** Rhythms and the Brain: Analysis of neural dynamics accompanying musical beat perception. J. R. IVERSEN*; S. MAKEIG; A. PATEL. *UC San Diego, UC San Diego, Tufts Univ.*

2:00 CC1 **637.18** Neural oscillations in auditory cortex and the phase tracking of music. K. DOELLING; D. POEPPEL*. *New York Univ., NYUAD Inst.*

3:00 CC2 **637.19** The harmonics of Hades: Neural correlates of auditory attraction and aversion. K. J. PATTEN*; S. R. HOLLOWAY; M. K. MCBEATH. *Arizona State Univ.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 CC3 **637.20** Neural oscillatory dynamics and hemodynamic responses reveal distinct mechanisms underlying perception of time. B. HERRMANN*; M. J. HENRY; M. GRIGUTSCH; M. SCHARINGER; J. OBLESER. *MPI For Human Cognitive and Brain Sci.*

1:00 CC4 **637.21** Melody recognition revisited: Event segmentation facilitates the encoding of relational pitch information. Y. S. LEE*; P. JANATA; C. FROST; Z. MARTINEZ; J. HULL; R. GRANGER. *Univ. of Pennsylvania, Dartmouth Col., UC Davis.*

2:00 CC5 **637.22** External auditory perception and auditory hallucinations in schizophrenia. T. IKUTA*; P. R. SZESZKO; P. B. KINGSLEY; A. K. MALHOTRA. *The Feinstein Inst. For Med. Res., The Zucker Hillside Hosp., North Shore Univ. Hosp.*

3:00 CC6 **637.23** Context-dependent modulation of striatal systems during incidental auditory category learning. S. LIM*; L. L. HOLT; J. A. FIEZ. *Carnegie Mellon Univ., Ctr. for the Neural Basis of Cognition, Univ. of Pittsburgh.*

4:00 CC7 **637.24** The characteristic of auditory-motor synchronization in elite dancers. N. KIYOTA*; K. NAKAGAWA; K. KATO; S. SUWA; K. KANOSUE. *Grad. Sch. of Sport Sciences, Waseda Univ., Japan Society for Promotion of Sci. Res. Fellow, Fac. of Sport Scieneces, Waseda Univ.*

1:00 CC8 **637.25** Embodying functionally relevant action sounds in patients with spinal cord injury. G. GALLI*; G. SCIVOLETTO; J. W. LEWIS; M. MOLINARI; S. M. AGLIOTI; M. PAZZAGLIA. *Giulia Galli, Sapienza Univ. of Rome, IRCCS Fondazione Santa Lucia, West Virginia Univ.*

2:00 CC9 **637.26** Basal ganglia disruption causes auditory working memory impairments in presence of distractors. C. R. CAMALIER*; A. Y. WANG; J. S. NEIMAT; L. G. GILLING-MCINTOSH; C. J. COCHRAN. *Vanderbilt Univ.*

POSTER

638. Striate Cortex: Local Circuitry

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 CC10 **638.01** Relationship between L2/3 recurrent connectivity and detailed receptive field parameters in mouse visual cortex. L. COSSELL; M. F. IACARUSO; H. KO; S. HOFER*; T. D. MRSIC-FLOGEL. *Univ. Col. London.*

2:00 CC11 **638.02** The synaptic basis of local field potentials in primary visual cortex. B. HAIDER*; D. SCHULZ; M. HÄUSSER; M. CARANDINI. *UCL Inst. of Ophthalmology, Gatsby Computat. Unit, UCL, Wolfson Inst. for Biomed. Research, UCL.*

3:00 CC12 **638.03** Cholinergic activation of somatostatin-expressing interneurons enhances cortical processing and changes brain states. N. CHEN; H. SUGIHARA*; M. SUR. *MIT.*

4:00 CC13 **638.04** Modulatory effects of activation of metabotropic glutamate receptors on the inhibitory responses in corticocortical circuitry in the mouse. T. LIU*; I. PETROF; S. M. SHERMAN. *Univ. of Chicago.*

1:00 CC14 **638.05** Spatial asymmetry of excitation and amplitude-dependent suppression contribute to direction selectivity in mouse visual cortex. Y. LI*; B. LIU; L. I. ZHANG; H. W. TAO. *USC.*

2:00 DD1 **638.06** Synergistic activity in V1 neuronal-assembly. V. BHARMAURIA*; L. BACHATENE; S. CATTAN; J. JEYABALARATNAM; J. ROUAT; S. MOLOTCHNIKOFF. *Univ. De Montreal, Univ. de Sherbrooke.*

3:00 DD2 **638.07** Neuronal circuit underlying unitary activity of repeating units composed of pyramidal neurons in neocortical layer 5. S. TSURUNO*; H. MARUOKA; R. KUROKAWA; N. MATSUMOTO; K. KISO; T. HOSOYA. *RIKEN, RIKEN.*

4:00 DD3 **638.08** Feedforward and feedback propagation of electrically induced activity in the visual cortex. B. DAGNINO*; M. A. GARIEL; P. ROELFSEMA. *Netherlands Inst. For Neurosci.*

1:00 DD4 **638.09** Experience-dependent emergence of fine-scale networks in visual cortex. A. ISHIKAWA; Y. KOMATSU; Y. YOSHIMURA*. *Natl. Inst. for Physiological Sci., Nagoya Univ., Okazaki Inst. Integrative Biosci.*

2:00 DD5 **638.10** A spiking network V1 model: Surround suppression, normalization, and related phenomena. D. OBEID; K. D. MILLER*. *Columbia Univ.*

3:00 DD6 **638.11** Patterns in V1 laminar synchrony reflect perceptual decisions. N. SHAHIDI*; M. HU; A. ANDREI; V. DRAGOI. *Univ. of Texas, Med. Sch. At Houston, Univ. of Texas, Med. Sch. at Houston.*

4:00 DD7 **638.12** Laminar structure of gamma activity in cat visual cortex. U. KOSTER*; C. GRAY. *Montana State Univ.*

1:00 DD8 **638.13** Visual stimulus-evoked laminar patterns of V1 neuron activity reveal specialized circuits for receptive field, near and far surround. M. BIJANZADEH*; J. M. ICHIDA; S. MERLIN; A. ANGELUCCI. *Univ. of Utah, Univ. of Utah.*

2:00 DD9 **638.14** Distinct classes of V1 layer 4B neurons projecting to V2 thick stripes in macaque. J. T. YARCH*; M. CHEN; S. MERLIN; J. M. ICHIDA; F. FEDERER; C. COTTRELL; E. M. CALLAWAY; A. ANGELUCCI. *Univ. of Utah, Univ. of Utah, Salk Inst. for Biol. Studies.*

3:00 DD10 **638.15** Distinct layer-specific eGFP-expression patterns of different AAV2/7 viral vector promoters in primate V1. A. GERITS*; P. VANCRAEYENEST; S. VREYSEN; C. VAN DEN HAUTE; A. MICHIELS; Z. DEBYSER; V. BAEKELANDT; L. ARCKENS; W. VANDUFFEL. *Neuro-And Psychophysiology, KULeuven, Neuroplasticity and Neuroproteomics, Neurobio. and Gene Therapy, Mol. Virology and Gene Therapy, Athinoula A. Martinos Ctr. for Biomed. Imaging, Radiology, Harvard Med. Sch.*

4:00 DD11 **638.16** Transcranial magnetic stimulation (TMS) changes response selectivity of neurons in visual cortex. T. KIM*; R. D. FREEMAN. *UC Berkeley.*

1:00 DD12 **638.17** Specificity of surround interaction for global directionality in awake monkey V1. E. KIM*; K. KIM; C. LEE. *Seoul Natl. Univ.*

2:00 DD13 **638.18** Responses in area V2 to disparity gradients: A role in 3D surface analysis. Q. DU*; D. TS'O. *SUNY Upstate Med. Univ.*

3:00 DD14 **638.19** A generalized linear model linking functional properties to coincident spiking in macaque V1. J. CHU*; P. CHIEN; C. HUNG. *Yang-Ming Univ., Univ. of Pennsylvania, Georgetown Univ.*

4:00 DD15 **638.20** Subpopulations of putative fast-spiking excitatory neurons in macaque V1: Laminar distribution and neurofilament protein co-immunoreactivity of neurons immunoreactive for Kv3.1b but not parvalbumin. J. G. KELLY*; V. GARCIA-MARIN; M. J. HAWKEN. *New York Univ.*

1:00 DD16 **638.21** The koniocellular pathway exhibits a unique distribution of glutamate related proteins. R. T. MARION*; M. KOO; J. P. PATEL; A. E. WENGER; E. SINGH; J. A. MAVITY-HUDSON; V. A. CASAGRANDE. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 DD17 **638.22** ▲ Driving & modulatory pathways illuminated by immunostaining in primate cortex. M. KOO; A. E. WENGER; E. SINGH; J. A. MAVITY-HUDSON; R. T. MARION; V. A. CASAGRANDE*. *Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Univ., Vanderbilt Med. Sch., Vanderbilt Univ., Vanderbilt Univ.*

POSTER

639. Striate Cortex: Functional Organization II

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 DD18 **639.01** Vertical organization of spatial phase in cat primary visual cortex. Y. WANG*; J. JIN; J. KREMKOW; S. J. KOMBAN; R. LASHGARI; J. M. ALONSO. *SUNY State Col. Optometry.*

2:00 EE1 **639.02** Do orientation maps altered by single-orientation experience encode visual images? N. WAKABAYASHI*; M. MIYASHITA; J. HORIKAWA; S. TANAKA. *Toyohashi Univ. of Technol., Numazu Natl. Col. of Technol., The Univ. of Electro-Communications.*

3:00 EE2 **639.03** Cross-orientation interactions between on and off pathways. S. J. KOMBAN*; J. JIN; J. KREMKOW; Y. WANG; R. LASHGARI; J. ALONSO; Q. ZAIDI. *Suny Col. of Optometry.*

4:00 EE3 **639.04** Effect of medial prefrontal subregions electrical stimulation on the neuronal activity of the primary visual cortex and basal forebrain. H. N. NGUYEN*; F. HUPPÉ-GOURGUES; E. VAUCHER. *Univ. of Montreal.*

1:00 EE4 **639.05** Infrared neural stimulation of visual cortex induces visual perception in awake non-human primates. A. W. ROE*; G. CHEN; J. CAYCE; D. JANSEN; A. MAHADEVAN-JANSEN. *Vanderbilt Univ., Vanderbilt Univ.*

2:00 EE5 **639.06** Joint organization of orientation, spatial frequency, and ocular dominance maps in monkey V1. I. M. NAUHAUS*; K. J. NIELSEN; E. M. CALLAWAY. *Salk Inst., Johns Hopkins Univ.*

3:00 EE6 **639.07** A 'labeled line' linking direction selective circuits in retina to superficial layers of primary visual cortex. A. CRUZ-MARTIN*; R. N. EL-DANAF; F. OSAKADA; P. L. NGUYEN; E. M. CALLAWAY; A. GHOSH; A. D. HUBERMAN. *Univ. of California San Diego, Salk Inst., F. Hoffman La Roche.*

4:00 EE7 **639.08** Functional organization of cone-opponent cells in macaque striate cortex (V1). A. KHACHATRYAN; M. CRUMILLER; E. KAPLAN; B. DELLON; Y. XIAO*. *Mount Sinai Sch. Med.*

1:00 EE8 **639.09** Asymmetries in ON and OFF cortical retinotopy: are OFF receptive fields the anchors of cortical retinotopic maps? J. KREMKOW*; J. JIN; S. J. KOMBAN; Y. WANG; R. LASHGARI; J. ALONSO. *State Univ. of New York.*

2:00 EE9 **639.10** Absence of oblique effects in macaque V1. G. SHEN*; B. ZHANG; X. TAO; E. L. SMITH, 3rd; Y. M. CHINO. *Univ. of Houston, Nova Southeastern Univ.*

3:00 EE10 **639.11** Unifying anatomical, psychophysical and developmental circuit models of primary visual cortex. P. RUDIGER*; J. A. BEDNAR. *Inst. For Adaptive and Neural Computation, Univ. of Edinburgh.*

4:00 EE11 **639.12** ● *In vivo* functional and anatomical evidence for stripe-based subdivisions in human V2 and V3. S. O. DUMOULIN*; B. M. HARVEY; F. VISSER; W. ZUIDERBAAN; P. R. LUIJTEN; B. A. WANDELL; N. PETRIDOU. *Utrecht Univ., Philips Healthcare, Univ. Med. Ctr. Utrecht, Stanford Univ.*

1:00 EE12 **639.13** Distinct laminar profiles for retino-cortical and inter-hemispheric responses in human early visual cortex. A. FRACASSO*; N. PETRIDOU; S. O. DUMOULIN. *Utrecht Univ., Univ. Med. Hosp.*

2:00 EE13 **639.14** fMRI correlates of perceptual filling-in in patients with central scotoma due to macular dystrophy. M. W. GREENLEE*; M. GOLDHACKER; K. ROSENGARTH; S. ANSTIS; T. PLANK. *Univ. Regensburg, Univ. of California at San Diego.*

3:00 EE14 **639.15** Fast one-step estimation of laminar population receptive fields at sub-millimeter resolution using high magnetic fields. J. ZIMMERMANN*; M. SENDEN; F. DE MARTINO; R. GOEBEL. *Maastricht Univ., Maastricht Univ.*

4:00 EE15 **639.16** Visual evoked magnetic fields to 4 Hz repetitive pattern-reversal stimulation. Y. GOTO*. *Intl. Univ. of Hlth. and Welfare.*

1:00 EE16 **639.17** Two-photon imaging of direction selectivity in the ferret across normal development. G. B. SMITH*; Y. M. ELYADA; D. FITZPATRICK. *Max Planck Florida Inst. For Neurosci.*

2:00 EE17 **639.18** The organization of parvalbumin positive interneuron in ferret visual cortex. A. L. JACOB*; T. C. WALKER; D. J. CASCIATO; D. FITZPATRICK. *Max Planck Florida Inst.*

3:00 EE18-DP6 **639.19** Simultaneous PET/MR imaging of brain metabolism and coherent intrinsic activity in the visual system. V. RIEDL*; K. BIENKOWSKA; M. TAHMASIAN; A. DRZEZGA. *Klinikum Rechts Der Isar TU Muenchen, Universitätsklinikum Köln.*

4:00 FF1 **639.20** The spatial relationship between the category selective and visual field map divisions of lateral occipital cortex. E. H. SILSON; R. J. HARRIS; A. D. GOUWS; M. HYMERS; T. J. ANDREWS; A. B. MORLAND*. *Univ. of York, Hull-York Med. Sch.*

1:00 FF2 **639.21** Retinotopic maps of deafferented cortex functionally respond like homotopic regions of unaffected cortex. E. GAFFIN-CAHN*; E. B. HINTZ; D. A. PAUL; G. E. VATES; Z. R. WILLIAMS; B. Z. MAHON. *Univ. of Rochester, Univ. of Rochester Sch. of Med. and Dent., Univ. of Rochester Sch. of Med. and Dent., Univ. of Rochester Sch. of Med. and Dent.*

2:00 FF3 **639.22** SSVEP intermodulation as a marker of interaction within colocated visual representations in an achiasmatic subject. B. T. FILES*; F. BALUCH; P. BAO; C. PURINGTON; B. S. TJAN. *USC, USC.*

POSTER

640. Visual Representation of Objects

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 FF4 **640.01** Object identity representation in human superior intra-parietal sulcus. S. JEONG*; Y. XU. *Harvard Univ.*

2:00 FF5 **640.02** Neural representations in visual cortex for numerical magnitudes presented in different formats. L. PETERS*; J. BULTHÉ; H. OP DE BEECK; B. DE SMEDT. *KU Leuven.*

3:00 FF6 **640.03** Visual crowding affects both strength and dynamics of inferotemporal object representations in the monkey. E. A. CROWDER*; C. R. OLSON. *Univ. of Pittsburgh, Carnegie Mellon Univ., Carnegie Mellon Univ.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 FF7 **640.04** The pervasive impact of top-down signals: Task context determines the neural representations of objects. A. HAREL*; D. J. KRAVITZ; C. I. BAKER. *NIMH/NIH.*

1:00 FF8 **640.05** Do human brain areas involved in visuomotor actions show a preference for real tools over visually similar non-tools? S. N. MACDONALD*; J. C. CULHAM. *Western Univ.*

2:00 FF9 **640.06** Line drawings and photographs of natural scenes share neural representation of category but not identity. T. P. O'CONNELL*; P. B. SEDERBERG; D. B. WALTHER. *Yale Univ., The Ohio State Univ.*

3:00 FF10 **640.07** The neural basis of developmental topographic disorientation. J. G. KIM*; E. M. AMINOFF; M. BEHRMANN; S. KASTNER. *Princeton Univ., Carnegie Mellon Univ., Carnegie Mellon Univ., Princeton Univ.*

4:00 GG1 **640.08** Lateralization of near-hand effects while judging graspability. L. E. BROWN*; C. LA MANTIA; C. L. R. GONZALEZ. *Trent Univ., Univ. of Lethbridge.*

1:00 GG2 **640.09** Convergence of object- and spatial property-based scene processing pathways in Parahippocampal Place Area. D. LINSLEY*; S. P. MACEVOY. *Boston Col., Boston Col.*

2:00 GG3 **640.10** Object-specific coding in human perirhinal cortex is modulated by semantic confusability. A. CLARKE*; L. K. TYLER. *Univ. of Cambridge.*

3:00 GG4 **640.11** ▲ Psychophysical evidence for multiple category representations in rapid visual categorization. K. MOHAN*; S. P. ARUN. *IISER, Indian Inst. of Sci.*

4:00 GG5 **640.12** Influence of object contours and orientation on 3-dimensional view invariance in neurons and behaviour. N. R. MURTY*; S. P. ARUN. *Indian Inst. of Sci.*

1:00 GG6 **640.13** Familiarity influences figure-ground representations in monkey IT cortex. K. RAJU*; S. P. ARUN. *Ctr. for Neuroscience, Indian Inst. of Sci., Indian Inst. of Sci.*

2:00 GG7 **640.14** Prediction suppression and surprise enhancement in monkey inferotemporal cortex. S. RAMACHANDRAN*; T. MEYER; C. R. OLSON. *Carnegie Mellon Univ., Ctr. for the Neural Basis of Cognition.*

3:00 GG8 **640.15** Responses in macaque inferior temporal cortex in an oddball paradigm reflect stimulus-specific adaptation and not surprise. R. VOGELS*; D. KALIUKHOVICH. *KU Leuven.*

4:00 GG9 **640.16** Invariance of single unit responses in the human medial temporal lobe to image transformations in a visual object presentation task. M. NAVRATIL*; J. NIEDIEK; H. KARNATH; V. A. COENEN; C. E. ELGER; F. MORMANN. *Univ. of Bonn, Univ. of Tübingen, Univ. of Bonn.*

1:00 GG10 **640.17** Category-specific neural activation patterns of acoustically and visually presented natural scenes are modulated by cross-modal attention. D. B. WALTHER*; B. LARSEN. *The Ohio State Univ., Univ. of Pittsburgh.*

2:00 GG11 **640.18** Resolving human object recognition in space and time: A combined MEG-fMRI study. R. M. CICHY*; D. PANTAZIS; A. OLIVA. *MIT, MIT.*

3:00 GG12 **640.19** Consistent topographic patterns of response in scene selective cortex are strongly correlated with scene-centered image statistics. T. HARTLEY*; D. M. WATSON; T. J. ANDREWS. *Univ. of York.*

4:00 GG13 **640.20** Contour junctions, not orientations are essential for eliciting scene category-specific neural activation patterns in human ventral cortex. H. CHOO*; D. B. WALTHER. *The Ohio State Univ.*

1:00 GG14 **640.21** Face-identity aftereffect is depth cue invariant. A. DEHMOOBADSHARIFABADI*; R. FARIVAR. *McGill Univ.*

2:00 GG15 **640.22** Image reconstruction from neural activity via higher-order visual features derived from deep convolutional neural networks. R. HAYASHI*; S. NISHIMOTO. *AIST, Natl. Inst. of Information and Communications Technol., Osaka Univ.*

3:00 GG16 **640.23** Location information influences object identity judgments: A "compatibility bias". C. N. KUPITZ*; J. D. GOLOMB. *The Ohio State Univ., The Ohio State Univ.*

4:00 GG17 **640.24** Visual object recognition in natural scenes: Contributions of the dorsal and ventral visual systems. E. T. ROLLS*; T. J. WEBB. *Oxford Ctr. For Comp Neurosci., Univ. of Warwick.*

POSTER

641. Pain Transduction: TRP Channels

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GG18 **641.01** TRPM8 acts as a sensor for increased osmolarity. T. E. QUALLO*; N. VASTANI; E. HORRIDGE; A. PARRA; K. ZIMMERMANN; C. GENTRY; F. VIANA; C. BELMONTE; D. A. ANDERSSON; S. BEVAN. *King's Col. London, Univ. Miguel Hernández-CSIC, Univ. of Erlangen.*

2:00 HH1 **641.02** Modality-specific mechanisms of protein kinase C-induced hypersensitivity of transient receptor potential vanilloid 1. J. JOSEPH; S. WANG; J. Y. RO; M. CHUNG*. *Univ. Maryland Dent. Sch.*

3:00 HH2 **641.03** Intrathecal AAV serotype 9-mediated delivery of shRNA against TRPV1 attenuates thermal hyperalgesia in a mouse model of peripheral nerve injury. T. HIRAI*; M. ENOMOTO; H. KABURAGI; S. SOTOME; K. SHINOMIYA; A. OKAWA; T. YOKOTA. *UCLA, Tokyo Med. and Dent. Univ., Tokyo Med. and Dent. Univ.*

4:00 HH3 **641.04** Sensitization of the TRPA1 ion channel by agonist or by protein kinase A-mediated phosphorylation. J. E. MEENTS*; M. J. M. FISCHER; P. A. MCNAUGHTON. *Univ. of Cambridge, Univ. of Erlangen-Nuremberg.*

1:00 HH4 **641.05** Oxidizes phospholipids as target in inflammation and pain in rats. B. OEHLER*; D. PFLUECKE; K. HILL; K. KISTNER; R. BLUM; N. ROEWER; M. SENDTNER; M. SCHAEFER; P. W. REEH; A. BRACK; H. L. RITTNER. *Univ. Hosp. of Wuerzburg, Univ. of Leipzig, Univ. of Erlangen-Nuremberg, Univ. Hosp. of Wuerzburg.*

2:00 HH5 **641.06** Interaction between TRPV1 and AKAP79: From molecule to pain. J. BTESH*; M. J. M. FISCHER; K. STOTT; P. A. MCNAUGHTON. *Univ. of Cambridge, Friedrich-Alexander-University.*

3:00 HH6 **641.07** PTHrP-TRPV1 signaling axis in pain associated with breast cancer bone metastasis. A. D. MICKLE*; L. LOO; A. J. SHEPHERD; D. P. MOHAPATRA. *The Univ. of Iowa Carver Col. of Med.*

4:00 HH7 **641.08** ● Resolvin E1 modulates TRPV1 activity via ChemR23 and G proteins. S. BANG*; C. PARK; R. JI; N. CHIANG; C. N. SERHAN. *Pain Res. Div. ,Department of Anesthesiol. and Neurobiology, Duke Univ., 2Center for Exptl. Therapeut. and Reperfusion Injury, Dept. of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's Hospital, Harvard Med. Sch.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 HH8 **641.09** Roles of TRPA1 channels in addition to $Ca_v3.2$ or TRPV1 as the downstream signal of hydrogen sulfide or proteinase-activated receptor-2 in the development of pancreatic pain. Y. TERADA*; M. FUJIMURA; S. NISHIMURA; M. TSUBOTA; A. KAWABATA. *Kinki Univ.*

2:00 HH9 **641.10** The cellular code for mammalian thermosensation. L. A. POGORZALA*; S. MISHRA; M. HOON. *NIH.*

3:00 HH10 **641.11** The effects of thermosensitive TRP channel agonists on temperature and pain sensations by cold plate test. M. G. TSAGARELI*; I. NOZADZE; N. TSIKLAURI; G. GURTSKAIA. *Ivane Beritashvili Exptl. Biomedicine Ctr.*

4:00 HH11 **641.12** Probing trp channel activity in intact dorsal root ganglia with a photoswitch molecule. ; J. C. SIMON; R. H. KRAMER. *UC Berkeley.*

1:00 HH12 **641.13** Molecular determinants of TRPV1 channel assembly and trafficking. R. FLYNN*; K. CHAPMAN; C. ALTIER. *Univ. of Calgary.*

2:00 HH13 **641.14** ● Contribution of TRPC3 to calcium homeostasis and inflammatory nociceptive pathways in DRG sensory neurons. H. ALKHANI*; A. ASE; R. GRANT; D. O'DONNELL; P. A. SEGUELA. *Montreal Neurolog. Institute, Dept of Neurol. and Neurosurgery, McGill Univ., AstraZeneca R&D Montreal.*

3:00 HH14 **641.15** Molecular mechanism of TRPV2 trafficking in sensory neurons. M. COHEN*; L. WANG; C. MARKS; V. MOISEENKOVA-BELL. *Case Western Reserve Univ. Sch. of Med., Case Western Reserve Univ., Case Western Reserve Univ.*

4:00 HH15 **641.16** Transient Receptor Potential (TRP) Channels are expressed in canine epidermis. S. SCHNELL; S. TORRES; M. RIEDL; L. VULCHANOVA*. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

1:00 HH16 **641.17** Activation of TRPV1 channels is involved in knee osteoarthritis pain: *In vivo* patch-clamp analysis. W. TANIGUCHI*; N. NISHIO; N. TAKIGUCHI; M. YAMANAKA; Y. KIYOYUKI; Y. SAKURAI; T. ABE; N. MINE; N. MIYAZAKI; M. YOSHIDA; T. NAKATSUKA. *Pain Res. Center, Kansai Univ. of Hlth. Sci., Wakayama Med. Univ.*

2:00 HH17 **641.18** ● Use of functional Magnetic Resonance Imaging (fMRI) to map the neural circuitry of the brain involved in pain perception and provide an imaging biomarker of analgesic efficacy independent of behavioral assays in conscious rats. C. F. FERRIS; C. MURPHY; P. KULKARNI; M. M. MORAN*; M. NEDELMAN. *Northeastern Univ., Cubist Pharmaceuticals, Hydra Biosci., Ekam Imaging.*

3:00 HH18 **641.19** Modulation of TRPV1 and voltage-gated calcium channels by peripheral metabotropic glutamate receptors type 5 contributes to heat hyper- and hypoalgesia in mice. T. MASUOKA*; T. NAKAMURA; J. YOSHIDA; Y. TAKAOKA; N. IMAIZUMI; T. ISHIBASHI; M. NISHIO. *Kanazawa Med. Univ., Kanazawa Med. Univ.*

4:00 II1 **641.20** ● TRPM8 is the principal mediator of menthol-induced analgesia of acute and inflammatory pain. B. LIU; L. FAN; S. BALAKRISHNA; A. SUI; J. B. MORRIS; S. E. JORDT*. *Yale Sch. of Med., Univ. of Connecticut, Sch. of Pharm., Yale Univ. Sch. Med.*

1:00 II2 **641.21** Trpa1 controls inflammation and pruritogen responses in allergic contact dermatitis. B. LIU*; J. ESCALERA; S. BALAKRISHNA; L. FAN; A. CACERES; E. ROBINSON; A. SUI; M. MCKAY; M. MCALEXANDER; C. HERRICK; S. JORDT. *Yale Univ., Yale Univ., GlaxoSmithKline Pharmaceuticals, GlaxoSmithKline Pharmaceuticals.*

2:00 II3 **641.22** Vitamin A Derivatives activate the irritant receptor TRPV1 and produce sensory hypersensitivity. S. YIN; J. LUO; A. QIAN; J. DU; Q. YANG; S. ZHOU; W. YU; G. DU; R. B. CLARK; E. T. WALTERS; S. M. CARLTON; H. HU*. *UTHSC at Houston, Univ. of Texas Med. Br.*

3:00 II4 **641.23** Role of VGluT3 expressing primary afferents in neuropathic pain. P. DRAXLER; S. D. HONSEK; L. FORSTHUBER; J. SANDKUHLER*. *Med. Univ. of Vienna.*

4:00 II5 **641.24** Artemin, a glial cell line-derived neurotrophic factor family member, induces TRPM8-dependent cold pain. E. K. LIPPOLDT*; R. R. ELMES; D. D. MCKEMY. *USC.*

1:00 II6 **641.25** Gallic acid functions as a TRPA1 antagonist with relevant antinociceptive and antiedematogenic effects in mice. G. TREVISAN*; M. F. ROSSATO; R. TONELLO; C. HOFFMEISTER; F. ROSA; J. FERREIRA. *Federal Univ. of Santa Maria.*

2:00 II7 **641.26** Direct evidence for functional TRP channel heteromers. M. J. FISCHER*; T. A. GOETZE; P. W. REEH. *Univ. of Erlangen-Nuremburg, Ludwig-Maximillian Univ. Munich.*

3:00 II8 **641.27** Operant behavioral responses to orofacial cold stimuli in rats with chronic constrictive trigeminal nerve injury: Effects of menthol and capsazepine. J. GU*; X. ZUO; J. LING. *Univ. Cincinnati Col. of Med.*

POSTER

642. Inflammatory Pain: Inflammatory Mediators

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 II9 **642.01** Involvement of NIPSNAP1, a neuropeptide nocistatin interacting protein, in inflammatory pain. E. OKUDA-ASHITAKA*; K. OKAMOTO; T. MINAMI; S. ITO. *Osaka Inst. of Technol., Osaka Med. Col., Kansai Med. Univ.*

2:00 II10 **642.02** Formalin induced phosphorylation of histone H3 at serine 10 (PH3S10) in the rat superficial dorsal horn is downstream of ERK activation and therefore may regulate nociceptive processing. K. K. TOCHIKI*; C. NORRIS; S. P. HUNT; S. M. GÉRANTON. *Univ. Col. London.*

3:00 II11 **642.03** Fibroblast growth factor 7 mediates inflammatory pain through promoting neurotransmitter release from primary afferents. H. LIU*; Q. WU; J. LI; X. LIU; Q. WANG; L. BAO; X. ZHANG. *Inst. of Neurosci., Inst. of Biochem. and Cell Biol.*

4:00 II12 **642.04** Recombinant human soluble thrombomodulin abolishes bladder pain accompanying cyclophosphamide-induced cystitis in mice. J. TANAKA*; H. ISHIKURA; K. YAMAGUCHI; M. TSUBOTA; F. SEKIGUCHI; Y. SEKI; A. KAWABATA. *Div. Emergency Medicine., Fukuoka Univ. Sch. Med., Kinki Univ. Sch. Pharm.*

1:00 II13 **642.05** Peroxisome proliferator-activated receptor-gamma agonist rosiglitazone attenuates inflammatory pain by regulating macrophage polarization. K. GODAI*; M. HASEGAWA-MORIYAMA; T. SAITO; T. YAMADA; Y. KANMURA. *Grad. Sch. of Med. and Dent. Sciences, Kagoshima Univ.*

2:00 II14 **642.06** Analgesic effects of resolvin D1 and chemerin via peripheral opioid mechanisms. H. L. RITTNER*; D. HACKEL; Y. WANG; L. MORSCHEL; A. BRACK. *Universitätklinikum Würzburg, Universitätsklinikum Würzburg.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 II15 **642.07** Peripheral activation of P2X7 receptors mediates the knee joint hyperalgesia induced by bradykinin and dopamine, but not by PGE2 and pro-inflammatory cytokines. C. H. TAMBELI*; J. M. TEIXEIRA; C. A. PARADA. *UNIVERSITY OF CAMPINAS.*

4:00 II16 **642.08** Endogenous ATP via P2X3 and P2X2/3 receptors mediates articular hyperalgesia induced by Bradykinin, PGE2 and Dopamine, but not by pro-inflammatory cytokines. J. M. TEIXEIRA*; C. A. PARADA; C. H. TAMBELI. *UNICAMP, State Univ. of Campinas (UNICAMP).*

1:00 II17 **642.09** Nerve growth factor potentiates prostaglandin I_2-mediated sensitization in rat sensory neurons in culture. R. WANG; C. GUO; M. R. VASKO*. *Indiana Univ. Sch. Med., Indiana Univ. Sch. Med.*

2:00 II18 **642.10** Roles of prolactin and prolactin receptor in hyperalgesia for postoperative pain model in male and female mice. M. J. PATIL*; M. A. HENRY; A. N. AKOPIAN. *UT Hlth. Sci. Ctr., UTHSCSA.*

1:00 JJ1 **642.11** Male and female mice use distinct spinal immune cells to mediate chronic pain. R. E. SORGE*; L. J. MARTIN; J. ALEXANDER; S. BEGGS; S. ROSEN; J. ZHANG; M. W. SALTER; J. S. MOGIL. *Univ. of Alabama At Birmingham, McGill Univ., Univ. of Toronto, McGill Univ.*

3:00 JJ2 **642.12** Inflammatory pain is driven by a subset of monocytes. N. GHASEMLOU*; I. M. C. CHIU; C. J. WOOLF. *Harvard Med. Sch.*

4:00 JJ3 **642.13** The role of TRPM2 receptor in hydrogen peroxide-mediated upregulation of inflammatory cytokine expresion in satellite glia of rat trigeminal ganglia. J. LEE*; M. SHIM; M. CHUNG; J. RO. *Univ. of Maryland Dent. Sch.*

1:00 JJ4 **642.14** Electroacupuncture inhibits spinal interleukin-17A to alleviate inflammatory pain in a rat model. R. ZHANG*; X. MENG; L. LAO; X. SHEN; B. M. BERMAN; K. REN; P. WEI. *Univ. Maryland Sch. Med., Shanghai Changzheng Hospital, Second Military Med. Univ., Shanghai Univ. of Traditional Chinese Med., Dent. School, Univ. of Maryland.*

2:00 JJ5 **642.15** PI3K isoforms contribute to development of peripheral inflammation. L. S. SORKIN*; L. FALK; M. LARSSON; M. LEINDERS. *Univ. California San Diego, Linkoping Univ., Univ. of Wurzburg.*

3:00 JJ6 **642.16** Complement C5a produces nociceptive sensitization via TRPV1 in mouse. L. P. SHUTOV; C. A. WARWICK; R. P. GUPTE; A. J. SHEPHERD; T. J. BRENNAN; D. D. CLARK; D. P. MOHAPATRA; Y. M. USACHEV*. *Univ. Iowa, Stanford Univ.*

4:00 JJ7 **642.17** IL-6-induced expression of indoleamine 2,3-dioxygenase and alteration of tryptophan metabolites in SK-N-SH cells. M. F. MCCABE; H. KIM; G. LIM*; L. CHEN; J. MAO. *Mass Gen. Hosp.*

POSTER

643. Visceral Pain

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJ8 **643.01** Evidence for CNS plasticity in animal models of inflammatory-mediated gastrointestinal pain: A systematic review. K. E. FARRELL*; S. KEELY; B. A. GRAHAM; R. CALLISTER; R. J. CALLISTER. *Univ. of Newcastle.*

2:00 JJ9 **643.02** ● Probiotic treatment (Lcr Restituo® and Lcr Lenio®) reduces central and peripheral visceral hypersensitivity in rats. L. DIOP*; Y. DARBAKY; S. PATRIER; A. NIVOLIEZ; B. EVRARD; A. TRIDON; C. SILBERBERG; G. LACOSTE. *ANS Biotech, Probionov, CHU Clermont-Ferrand.*

3:00 JJ10 **643.03** Brilliant Blue G (BBG) modulates primary afferent responses to colorectal distension in rat models of visceral pain. J. WANG; C. GU; E. D. AL-CHAER*. *Univ. Arkansas Med. Sci.*

4:00 JJ11 **643.04** Epigenetic modulation of estrogen-induced facilitation of visceral pain. D. CAO*; G. BAI; Y. JI; R. J. TRAUB. *Univ. of Maryland Sch. of Dent.*

1:00 JJ12 **643.05** Chronic visceral pain: Importance of sensory neuron glutamate metabolism in a rodent model of post-inflammatory colonic hypersensitivity. K. E. MILLER*; K. TYLER; M. B. ANDERSON; C. KIM; B. GREENWOOD-VAN MEERVELD. *Oklahoma State Univ. Ctr. Hlth. Sci., Univ. of Oklahoma Hlth. Sci. Ctr.*

2:00 JJ13 **643.06** A computational model of mouse stretch-sensitive colorectal afferents. B. FENG*; G. F. GEBHART. *Univ. of Pittsburgh.*

3:00 JJ14 **643.07** Expression of pERK in dorsal root ganglia by innocuous and noxious colorectal mechanical stimulation. J. LA*; G. F. GEBHART. *Ctr. For Pain Research, Univ. Pittsburgh.*

4:00 JJ15 **643.08** Roles of ERK and JNK in mediating the progression to chronic pancreatic inflammation and pain. E. S. SCHWARTZ*; J. LA; N. N. SCHEFF; G. F. GEBHART. *Univ. of Pittsburgh.*

1:00 JJ16 **643.09** ▲ Nociceptive and inflammatory mediators of CP/CPPS. A. XIE*; E. S. SCHWARTZ; J. LA; G. F. GEBHART. *Univ. of Pittsburgh, Univ. of Pittsburgh.*

2:00 JJ17 **643.10** Cystitis alters pro- and anti-inflammatory cytokine balance in the bladder. A. D. SHAFFER*; J. LA; G. F. GEBHART. *Univ. of Pittsburgh Ctr. For Pain Res.*

3:00 JJ18 **643.11** Serotonin facilitates stress-induced bladder hyperalgesia. C. L. BALL*; T. J. NESS; M. T. ROBBINS. *Univ. of Alabama At Birmingham, Univ. of Alabama at Birmingham.*

4:00 KK1 **643.12** 5-Hydroxytryptophan increases visceral sensitivity related to the urinary bladder. M. T. ROBBINS*; C. R. DEWITTE; J. D. HALL; T. J. NESS. *Univ. Alabama-Birmingham, Univ. Alabama-Birmingham.*

1:00 KK2 **643.13** Effects of body temperature and isoflurane induction on urinary bladder distension. K. E. SADLER*; J. M. STRATTON; B. J. KOLBER. *Duquesne Univ., Duquesne Univ.*

2:00 KK3 **643.14** Regional cortical thickness changes in patients with chronic inflammatory and non-inflammatory visceral pain. J. HONG; J. S. LABUS; A. GUPTA; Z. JUANG; C. ASHE-MCNALLEY; I. DINOV; Y. SHI; J. STAINS; S. R. SMITH; N. HEENDENIYA; K. TILLISCH; E. A. MAYER*. *Gail and Gerald Oppenheimer Family Ctr. for Neurobio. of Stress, Lab. of Neuro Imaging, Oppenheimer Family Ctr. For Neurobio. of Stress.*

3:00 KK4 **643.15** Brain signatures based on diffusion tensor imaging-based connectivity can accurately discriminate functional somatic pain from health: Examining central mechanisms in irritable bowel syndrome. J. LABUS*; J. VAN HORN; C. TORGERSON; C. ASHE-MCNALLEY; A. IRIMIA; M. CHAMBERS; A. GUPTA; K. TILLISCH; E. MAYER. *Oppenheimer Family Ctr. for Neurobio. of Stress at UCLA, UCLA.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 KK5-DP7**643.16** Brain source connectivity reveals reorganization of the cingulate-operculum network in patients with painful chronic pancreatitis. D. LELIC*; S. S. OLESEN; T. M. HANSEN; M. VALERIANI; A. M. DREWES. *Aalborg Hospital, Aarhus Univ. Hosp., Aalborg Hospital, Aarhus Univ. Hosp., Ospedale Pediatrico Bambino Gesù, IRCCS, Ctr. for Sensory-Motor Interactions (SMI), Aalborg Univ.*

1:00 KK6 **643.17** Electrical tomographic analysis of the cortical representation of normal visceral pelvic pain. B. W. FENTON*; B. E. LEWANDOWSKI; A. R. HARRIVEL; D. DORUK; F. FREGNI; M. MCCARROLL; V. VONGRUENIGEN. *Summa Hlth. Syst., NASA-Glenn, Harvard Med. Sch.*

2:00 KK7 **643.18** Altered structural connectivity in primary dysmenorrhea. L. CHENG*; C. TU; J. HSIEH. *Natl. Yang-Ming Univ., Taipei Veterans Gen. Hosp., Taipei City Hosp.*

3:00 KK8 **643.19** Endometriosis in the rat: Spinal activation of c-fos and Erk1/2. N. DMITRIEVA*; K. J. BERKLEY. *Florida State Univ., Florida State Univ.*

4:00 LL1 **643.20** Endometriosis (ENDO)-induced vaginal hyperalgesia in the rat: Different contributions of sensory and sympathetic innervation of the ectopic growths, vaginal canal, and eutopic uterus. S. L. MCALLISTER*; K. J. BERKLEY. *Florida State Univ.*

1:00 LL2 **643.21** Behavioral manifestations of endometriosis-related pain in a mouse model. J. A. DYKSTRA; M. S. RIEDL*; M. RAZZOLI; C. N. HONDA; A. BARTOLOMUCCI; L. VULCHANOVA. *Univ. Minnesota, Univ. Minnesota, Univ. Minnesota, Univ. Minnesota.*

2:00 LL3 **643.22** The role of visceral motor reflexes in menstrual pain. K. M. HELLMAN*; E. BORUSHKO; J. KANE; F. F. TU. *NorthShore Univ. HealthSystem, Univ. of Chicago.*

3:00 LL4 **643.23** Effect of BDNF Val66Met polymorphism on gray matter volume in primary dysmenorrhea. W. LI*; C. TU; J. HSIEH; L. CHEN. *Natl. Yang-Ming Univ., Dept. of Med. Res. and Education, Taipei Veterans Gen. Hosp.*

4:00 LL5 **643.24** Perioperative morphine administration prolongs post-operative pain: a role for TLR4 and inflammasome signaling. E. L. GALER*; P. M. GRACE; K. A. STRAND; K. CORRIGAN; D. BERKELHAMMER; B. SKARDA; K. C. RICE; S. F. MAIER; L. R. WATKINS. *Univ. of Colorado At Boulder, Natl. Inst. on Drug Abuse and Natl. Inst. on Alcohol Abuse and Alcoholism.*

1:00 LL6 **643.25** Pelvic organ-specific increase in sensitivity and dysregulation of the HPA axis following neonatal maternal separation in female mice. A. N. PIERCE*; R. WANG; J. M. RYALS; J. A. CHRISTIANSON. *Univ. of Kansas Med. Ctr.*

2:00 LL7 **643.26** Riluzole attenuates visceral hypersensitivity in the stress-sensitive Wistar Kyoto rat - a role for glial glutamate transporters. R. D. MOLONEY*; R. M. O'CONNOR; V. D. FELICE; S. M. O'MAHONY; J. F. CRYAN; T. G. DINAN. *Univ. Col. Cork, Univ. Col. Cork, Univ. Col. Cork.*

3:00 LL8 **643.27** Transducer proteins identified in rat intrinsic cardiac ganglia neurons. T. WANG*; K. E. MILLER. *Oklahoma State Univ. Ctr. For Hlth. Sci.*

4:00 LL9 **643.28** Early-life alteration in microbiota leads to visceral hypersensitivity in adulthood. V. D. FELICE*; H. M. SAVIGNAC; M. J. CLAESSON; F. SHANAHAN; P. W. O'TOOLE; T. G. DINAN; J. F. CRYAN; S. M. O'MAHONY. *Univ. Col. Cork, Univ. Col. Cork, Univ. Col. Cork.*

1:00 LL10 **643.29** Impact of early life and adult stress on anxiety behavior and pelvic organ sensitivity in male mice. I. M. FUENTES; A. N. PIERCE; N. K. WALKER; B. R. HOLT; R. WANG; J. M. RYALS; J. A. CHRISTIANSON*. *Univ. of Kansas Med. Ctr.*

2:00 LL11 **643.30** The role of protease-activated receptor 2 in chronic pelvic pain. K. M. ROMAN*; J. DONE; P. THUMBIKAT. *Northwestern Univ.*

POSTER

644. Somatosensory Cortex: Neural Coding

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LL12 **644.01** Role of cortical state in context-dependent sensory processing. E. ZAGHA*; D. A. MCCORMICK. *Yale Sch. of Med.*

2:00 MM1 **644.02** Membrane potential dynamics of barrel cortex neurons during staged episodes of facial social touch. C. LENSCHOW*; M. BRECHT. *Bernstein Ctr. For Computat. Neurosci., Humboldt Univ. of Berlin.*

3:00 MM2 **644.03** Paralbumin-expressing GABAergic neurons gate sensory perception in mouse barrel cortex. S. B. SACHIDHANANDAM*; V. SREENIVASAN; A. KYRIAKATOS; Y. KREMER; C. C. H. PETERSEN. *Ecole Polytechnique Federale De Lausanne (EPFL).*

4:00 MM3 **644.04** Impact of response adaptation on stimulus perception: Sensory stimulation versus optogenetic activation of primary somatosensory cortex. S. MUSALL*; W. VON DER BEHRENS; J. MAYRHOFER; B. WEBER; F. HELMCHEN; F. HAISS. *Brain Res. Inst., Inst. of Pharmacol. and Toxicology, Inst. for Neuroinformatics, IZKF Aachen, Inst. of Neuropathology, Dept. of Ophthalmology.*

1:00 MM4 **644.05** Stimulus onset activity of neurons in the rat's somatosensory cortex encodes high-frequency whisker vibrations in the awake state but not under anesthesia. C. VAHLE-HINZ*; M. C. STÜTTGEN; T. A. S. EWERT; C. SCHWARZ; A. K. ENGEL. *Dept Neurophysiol & Pathophys, Univ. Med. Ctr. Hamburg-Eppendorf, Ctr. for Integrative Neuroscience, Univ. Tübingen.*

2:00 MM5 **644.06** Long-term bilateral vibrotactile whisker frequency representation in neuronal populations of the mouse somatosensory cortex. J. M. MAYRHOFER*; W. VON DER BEHRENS; S. MUSALL; F. HELMCHEN; F. HAISS; B. WEBER. *Inst. of Pharmacol. & Toxicology, Univ. of Zurich, Inst. of Neuroinformatics, Univ. of Zurich, Brain Res. Institute, Univ. of Zurich, IZKF Aachen, Med. Fac. of the RWTH Univ., Inst. of Neuropathology, RWTH Aachen, Dept. of Ophthalmology, RWTH Aachen Univ.*

3:00 MM6 **644.07** Efficient and sparse coding in the whisker system. M. H. EVANS*; T. J. PRESCOTT. *Univ. of Sheffield, Univ. of Sheffield.*

4:00 MM7 **644.08** Comparison of the propagation patterns of neural activity in the rat sensorimotor cortex under different anesthetics detected with multiple site optical recording system. N. HAMA*; S. ITO; A. HIROTA. *Shimane University, Sch. of Med.*

1:00 MM8 **644.09** Information transfer And recovery In The somatosensory cortex. C. HUANG*; A. RESNIK; T. CELIKEL. *USC, Donders Ctr. for Neuroscience, Radboud Univ.*

2:00 MM9 **644.10** The invariance of cortical spatial activation in the rodent vibrissae system. C. A. GOLLNICK*; D. C. MILLARD; R. V. BELLAMKONDA; G. B. STANLEY. *Georiga Inst. of Technol.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 MM10 **644.11** *In vivo* two-photon calcium imaging of frequency tuning in the mouse somatosensory cortex. M. V. BANDET*; I. R. WINSHIP. *Univ. of Alberta, Univ. of Alberta.*

4:00 NN1 **644.12** Behavioral report of optogenetic stimulation of somatosensory cortex hand representation by non-human primates. T. A. MAY*; I. OZDEN; N. AGHA; D. A. BORTON; F. WAGNER; A. NURMIKKO. *Brown Univ., Brown Univ., EPFL, Brown Univ., Brown Univ.*

1:00 NN2 **644.13** The representation of hand conformation and movements in primary somatosensory cortex. G. TABOT*; A. RAJAN; N. HATSOPOULOS; S. BENSMAIA. *Univ. of Chicago.*

2:00 NN3 **644.14** An adaptation-induced repulsion illusion in tactile spatial perception. L. LI*; S. M. IQBAL; D. GOLDREICH. *McMaster Univ.*

3:00 NN4 **644.15** Whole cell recordings of interneuronal inhibition in cuneate nucleus *in vivo.* H. JORNTELL*; P. GEBOREK; A. SPANNE; F. BENGTSSON. *Univ. Lund.*

4:00 NN5 **644.16** Contribution of lateral skin stretch to direction and speed judgments of motion across the skin. T. SEIZOVA-CAJIC*; S. BERGSTRÖM; K. KARLSSON; S. MCINTYRE; I. BIRZNIEKS. *The Univ. of Sydney, Fac. of Hlth. Sci., Univ. of Western Sydney.*

1:00 NN6 **644.17** The influence of fingerprint skin on texture perception. H. P. SAAL*; J. D. LIEBER; L. R. MANFREDI; A. I. WEBER; J. F. DAMMANN, III; S. J. BENSMAIA. *Univ. of Chicago.*

2:00 NN7 **644.18** Skin strain measurements of the fingertip under shearing stress. B. DELHAYE*; P. LEFÈVRE; J. THONNARD. *Univ. catholique de Louvain, Univ. catholique de Louvain.*

3:00 NN8 **644.19** The role of temporal features of the afferent spike train in the perception of vibrotactile stimulus frequency. I. BIRZNIEKS*; R. M. VICKERY. *Univ. of Western Sydney, Neurosci. Res. Australia, Univ. of New South Wales.*

4:00 NN9 **644.20** BOLD response to passively induced forefinger kinematics. J. S. SULZER*; J. DUEÑAS; P. STÄMPFLI; M. HEPP-REYMOND; S. KOLLIAS; E. SEIFRITZ; R. GASSERT. *Swiss Federal Inst. of Technology, Zurich (ETHZ), Zurich Univ. Hosp. for Psychiatry, Univ. of Zurich and ETH Zurich, Univ. Hosp. Zurich, Zurich Univ. Hosp. for Psychiatry.*

1:00 NN10 **644.21** Finite element analysis of deformed fingerpad that explains tactile recognition performance of geometric surface features in human. M. NAKATANI*; T. SHINMI; Y. MAKINO; T. MAENO. *Columbia Univ., Keio Univ.*

2:00 NN11 **644.22** The peripheral neural code of tactile roughness for natural textures. J. LIEBER*; A. I. WEBER; H. P. SAAL; S. J. BENSMAIA. *Univ. of Chicago, Univ. of Chicago.*

3:00 NN12 **644.23** Intraneural microstimulation of somatosensory afferenst during fMRI at 7T. F. P. MCGLONE*; R. ACKERLEY; R. SANCHEZ PANCHUELO; P. GLOVER; R. BOWTELL; J. WESSBERG; S. FRANCIS. *Liverpool John Moores Univ., Univ. of Gothenburg, Univ. of Nottingham.*

4:00 NN13 **644.24** Temporal and spatial summation in low-frequency vibrotactile perception. A. BHATTACHARJEE*; M. ADEOLU; O. MARWAY; D. GOLDREICH. *Dept. of Psychology, Neurosci. & Behaviour; McMaster Univ.*

1:00 NN14 **644.25** Adaptation of the cortical somatosensory evoked potentials following pneumatic stimulation of the face in adults. R. CUSTEAD*; H. OH; A. ODER; S. BARLOW. *Univ. of Kansas, Univ. of Kansas, Univ. of Kansas, Univ. of Kansas.*

2:00 NN15 **644.26** Endpoint-like representations of limb state from combinations of muscle spindle outputs: A simulation study of the effects of musculoskeletal geometry on neural coding. R. H. CHOWDHURY*; B. M. LONDON; M. C. TRESCH; L. E. MILLER. *Northwestern Univ., Columbia Univ.*

3:00 NN16 **644.27** Temporal coding contributes to vibrotactile frequency perception across multiple afferent types. R. M. VICKERY*; I. BIRZNIEKS. *UNSW, Univ. of Western Sydney.*

4:00 NN17 **644.28** Depressing effect of electroacupuncture on the n1 component of the cord dorsum potential in the rat spinal cord. S. QUIROZ-GONZÁLEZ; J. GUADARRAMA-OLMOS; B. SEGURA-ALEGRÍA; I. JIMENEZ-ESTRADA*. *State Univ. of Ecatepec Valley, Ctr. for research and advanced studies, FES-Iztacala, UNAM, IPN Ctr. Invst & Adv Studies.*

1:00 NN18 **644.29** Similitudes in active electro-reception by electric fish. R. BUDELLI*; F. PEDRAJA; A. RODRÍGUEZ-CATTANEO; P. A. AGUILERA; A. CAPUTI. *Facultad De Ciencias, Inst. de Investigaciones Biologicas Clemente Estable.*

POSTER

645. Spinal Cord Injury: Plasticity III

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 OO1 **645.01** Operant down-conditioning of the soleus H-reflex during walking in people with incomplete spinal cord injury: Preliminary results. A. THOMPSON*; F. R. POMERANTZ; J. WOLPAW. *Helen Hayes Hosp NYS Dept Hlth., Wadsworth Center. NYS Dept. of Hlth., Dept. of Neurology, Neurolog. Institute, Columbia Univ., Dept. of Biomed. Sciences, State Univ. of New York at Albany, Dept. of Rehabil. and Regenerative Medicine, Columbia Univ.*

2:00 OO2 **645.02** Spinal cord injury model in mice for studies of motor dysfunction. C. BELLARDITA*; A. FUCHS; O. KIEHN. *Karolinska Institutet.*

3:00 OO3 **645.03** Reorganization of functional connectivity between dorsal horn neuronal networks produced by intradermic capsaicin and heat-induced skin damage and its transient restoration by systemic lidocaine. E. CONTRERAS-HERNÁNDEZ; D. CHÁVEZ; E. HERNÁNDEZ; S. GLUSMAN; P. RUDOMIN*. *Cinvestav IPN Depto. Fisiologia, Cook County Hosp., El Colegio Nacional.*

4:00 OO4 **645.04** Locomotor effects of H-reflex conditioning in rats with transection of the dorsal column ascending tract. Y. CHEN*; L. CHEN; R. L. LIU; Y. WANG; J. R. WOLPAW; X. Y. CHEN. *Wadsworth Ctr, NYS Dept Hlth. & SUNY.*

1:00 OO5 **645.05** Transcranial direct current stimulation to tongue area of primary motor cortex. D. R. LAMETTI*; M. CIOCCA; L. DESIKAN; J. C. ROTHWELL. *Univ. Col. London, Univ. of Milan, Univ. Col. London.*

2:00 OO6 **645.06** Upper lumbar spinal transection in adult rats alters intrinsic properties of external urethral sphincter motoneurons recorded *in vitro.* J. S. CARP*; B. K. LAPALLO; X. Y. CHEN; J. R. WOLPAW. *Wadsworth Ctr, NYS Dept Hlth. & SUNY.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 OO7 **645.07** Verified contribution of propriospinal neurons to recovery of hand dexterity after a corticospinal tract lesion in the monkey. T. TOHYAMA*; M. KINOSHITA; R. MATSUI; S. KATO; K. ISA; D. WATANABE; K. KOBAYASHI; M. LIU; T. ISA. *NIPS, Grad. Sch. of Medicine, Keio Univ., Hirosaki Univ. Grad. Sch. of Med., Grad. Sch. of Biostudies, Kyoto Univ., Inst. of Biomed. Sciences, Fukushima Med. Univ. Sch. of Med., Sch. of Medicine, Keio Univ., The Grad. Univ. for Advanced Studies (SOKENDAI).*

4:00 OO8 **645.08** Muscle atrophy after sci and the effect on motor pool activation. G. F. FORREST*; A. RAMANUJAM; E. JOHNSEN; E. GARBARINI; S. J. HARKEMA. *Kessler Fndn. Res. Ctr., Univ. of Med. and Dent., Univ. of Louisville, Frazier Rehab Inst.*

1:00 OO9 **645.09** Operant up-conditioning of soleus stretch reflex in healthy humans. P. B. SILVA*; Y. MAKIHARA; A. K. THOMPSON; U. G. KERSTING; N. MRACHACZ-KERSTING. *Aalborg Univ., Helen Hayes Hosp.*

2:00 OO10 **645.10** Increases in maximal motor unit discharge rates during volitional contractions in human incomplete spinal cord injury. C. K. THOMPSON*; H. E. KIM; T. G. HORNBY. *Northwestern Univ., Rehabil. Inst. of Chicago, Univ. of Illinois at Chicago, Univ. of Illinois at Chicago, Northwestern Univ.*

3:00 OO11 **645.11** Session-to-session variability in corticospinal excitability for the ankle dorsiflexor tibialis anterior muscle in individuals with and without chronic spinal cord injury. J. A. BRANGACCIO*; J. SNIFFEN; A. AMSTERDAM; G. FIORENZA; A. THOMPSON. *Helen Hayes Hosp., Sch. of Hlth. Technol. & Mgmt., State Univ. of New York at Stony Brook, Helen Hayes Hosp., Wadsworth Center. NYS Dept. of Hlth., Dept. of Neurology, Neurolog. Institute, Columbia Univ., Dept. of Biomed. Sciences, State Univ. of New York at Albany.*

4:00 OO12 **645.12** Neuron-macrophage interactions play essential roles in maintaining conditioning injury-induced enhanced regenerative capacity of DRG sensory neurons. M. J. KWON*; H. SHIN; D. HWANG; B. KIM. *Ajou Univ. Sch. of Med. / Brain Dis. Res. Ctr., Dept. of Neurology, Ajou Univ. Sch. of Med.*

1:00 OO13 **645.13** Phrenic motoneuron loss and diaphragm function following a mid-cervical spinal contusion injury. L. N. LITTLE*; S. P. HUSSEY; E. J. GONZALEZ-ROTHI; L. M. MERCIER; D. E. SANCHEZ; B. E. O'STEEN; D. D. FULLER; M. A. LANE; P. J. REIER. *Univ. of Florida, Univ. of Florida.*

2:00 OO14 **645.14** Electrical activity generated in the spinal cord may be important for the development of DRG hyperexcitability following spinal cord injury. J. DU*; E. T. WALTERS; S. M. CARLTON. *Univ. Texas Med. Br., Univ. Texas Med. Sch. at Houston.*

3:00 OO15 **645.15** Protein kinase C may be involved in the spinal cord plasticity produced by H-reflex conditioning. X. CHEN*; Y. WANG; Y. CHEN; L. CHEN; R. L. LIU; J. R. WOLPAW. *Wadsworth Ctr, NYS Dept Hlth. & SUNY.*

4:00 OO16 **645.16** The short interval intracortical inhibition (SICI) and intracortical inhibition (ICI) are modulated by different frequencies of peripheral nerve stimulation. Y. CHANG*; M. CHIANG; C. FANG; M. HSU; W. TANG; A. M. WONG. *Chang Gung Univ., Chang Gung Univ., Tzu Hui Inst. of Technol., Kaohsiung Med. Univ., Kaohsiung Med. Univ. Hosp., Natl. Taiwan Sport Univ., Chang Gung Med. Fndn.*

1:00 OO17 **645.17** Operant down-conditioning of the soleus H-reflex in normal humans does not induce long-term changes in gastrocnemius H-reflexes and does not appear to disturb locomotion. Y. MAKIHARA*; R. SEGAL; J. WOLPAW; A. THOMPSON. *Helen Hayes Hospital, New York State Dept. of Hlth., Program in Human Movement Science, Dept. of Allied Hlth. Sciences, The Univ. of North Carolina at Chapel Hill, Wadsworth Center. NYS Dept. of Hlth., Dept. of Neurology, Neurolog. Institute, Columbia Univ., Dept. of Biomed. Sciences, State Univ. of New York at Albany.*

2:00 OO18 **645.18** Differential voluntary activation and fatiguing behaviors based on muscle contraction type in human spinal cord injury. H. E. KIM*; C. K. THOMPSON; T. G. HORNBY. *Univ. of Illinois At Chicago, Rehabil. Inst. of Chicago, Northwestern Univ., Univ. of Illinois at Chicago.*

3:00 PP1 **645.19** Effects of soleus H-reflex conditioning on the motoneuron GABAA receptor, G-protein-activated inwardly-rectifying potassium channel 3.2, and voltage-gated sodium channels. Y. WANG*; L. CHEN; Y. CHEN; J. R. WOLPAW; X. Y. CHEN. *Wadsworth Ctr. NYS Dept Hlth. & SUNY.*

4:00 PP2 **645.20** Preliminary studies on operant conditioning Tibialis Anterior H-reflex in people with stroke: Conditioned response. R. L. SEGAL*; H. WALKER. *Univ. North Carolina Chapel Hill, Univ. North Carolina Chapel Hill.*

1:00 PP3 **645.21** Long-term single-neuron data from behaving rats undergoing operant conditioning of the H-reflex: Development of automated data collection and analysis methods. W. T. BAXTER; Y. CHEN; J. S. CARP; X. Y. CHEN; J. R. WOLPAW*. *Wadsworth Ctr, NYS Dept Hlth.*

2:00 PP4 **645.22** Down-conditioning of soleus H-reflex in rats with right lateral column injury weakens the soleus H-reflex pathway but does not further impair locomotion. L. CHEN*; Y. CHEN; R. L. LIU; Y. WANG; J. R. WOLPAW; X. Y. CHEN. *Wadsworth Ctr, NYS Dept Hlth. & SUNY.*

3:00 PP5 **645.23** Interleukin 1β induces long-term potentiation of glycinergic synapses on dorsal horn GABAergic neurons. A. M. CHIRILA*; T. E. BROWN; N. W. BELLONO; J. A. KAUER. *Brown Univ., Univ. of Wyoming.*

4:00 PP6 **645.24** Cervical spinal cord injury alters the pattern of inspiratory and expiratory neuronal activity in the rat brainstem respiratory centers. L. M. MERICER*; M. S. SANDHU; N. L. ARIAS; E. J. GONZALEZ-ROTHI; L. N. LITTLE; D. D. FULLER; P. J. REIER; M. A. LANE. *Univ. of Florida, Univ. of Florida.*

1:00 PP7 **645.25** The effect of electrical stimulation on spinal reciprocal inhibition during robotic passive stepping in humans. H. OBATA*; N. KAWASHIMA; K. NAKAZAWA. *The Univ. of Tokyo, Natl. Rehabil. Ctr. for Persons with Disabilities.*

2:00 PP8 **645.26** Modulation of the soleus stretch reflex during walking in people with spasticity due to chronic incomplete spinal cord injury. L. TENTEROMANO*; J. B. ANDERSEN; T. SINKJÆR; A. THOMPSON. *Helen Hayes Hosp., Ctr. for Sensory-Motor Interaction, Aalborg Univ., Wadsworth Center. NYS Dept. of Hlth., Dept. of Neurology, Neurolog. Institute, Columbia Univ., Dept. of Biomed. Sciences, State Univ. of New York at Albany.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

646. Muscle: Pathophysiology and Muscle Diseases

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 PP9 **646.01** Development of improved phenotypic mdx mouse models using genetic background variation in mice. L. P. BOGDANIK*; W. ANDREWS; C. DAVIS; A. SAUNDERS; G. A. COX; C. LUTZ. *The Jackson Lab.*

2:00 PP10 **646.02** Combined therapy with deflazacort and doxycycline in Duchenne Muscular Dystrophy: Pre clinical evaluation in mdx mice. J. A. PEREIRA*; D. O. MOREIRA; I. C. C. BARBIN; M. J. MARQUES; H. SANTO NETO. *UNICAMP.*

3:00 PP11 **646.03** Pifithrin-alpha reduces proinflammatory proteins involved in the cardiomyopathy of mdx mice, an experimental model for Duchenne muscular dystrophy. I. C. BARBIN*; J. A. PEREIRA; C. Y. MATSUMURA; D. O. MOREIRA; M. MARQUES; H. SANTO NETO. *Isabel Cristina Chagas Barbin, Unicamp.*

4:00 PP12 **646.04** Dysferlin deficient mice show muscle dystrophy by MRI and deficiency in energy metabolism. T. T. AHTONIEMI*; H. WINDISH; D. ALBRECHT; J. OKSMAN; J. PUOLIVÄLI; K. LEHTIMÄKI; A. NURMI. *Charles River Discovery Res. Services, Jain Fndn.*

1:00 PP13 **646.05** The role of IL-15 and IL-15Ra in the denervated skeletal muscle regeneration. Y. WANG*; B. YADEN; P. SHETLER; D. GIFONDORWA; A. MILNER; K. BALLMAN; H. BRYANT; V. KRISHNAN. *Eli Lilly and Co.*

2:00 PP14 **646.06** Effects of gonadal hormones on denervated versus non-denervated striated musculature of male rats. O. D. LARA GARCIA*; M. ALVARADO; E. CUEVAS; M. LARA GARCIA; P. PACHECO. *Univ. Veracruzana, Univ. Autonoma de Tlaxcala, Univ. Nacional Autonoma de Mexico.*

3:00 PP15 **646.07** Alterations in GADD45β protein expression in skeletal muscle in spastic cerebral palsy. D. T. BARNES*; M. VIERECK; K. ROBINSON; R. AKINS. *Univ. of Delaware, Nemours.*

4:00 PP16 **646.08** Pregnancy and primiparity affect morphometry of essential striated muscles for micturition in rabbits. O. SANCHEZ GARCIA*; K. LOPEZ-GARCIA; M. HUERTA-CERVANTES; J. RODRIGUEZ-ANTOLIN; E. CUEVAS; M. MARTINEZ-GOMEZ; F. CASTELAN. *Univ. Autonoma De Tlaxcala, UNIVERSIDAD VERACRUZANA, UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO.*

1:00 PP17 **646.09** Fiber type characterization of pubococcygeus and bulbospongiosus muscles in female rabbits. K. LÓPEZ-GARCÍA*; S. MARISCAL-TOVAR; O. SÁNCHEZ-GARCÍA; M. MARTÍNEZ-GÓMEZ; I. JIMÉNEZ-ESTRADA; F. CASTELÁN. *Univ. Autónoma De Tlaxcala, Univ. Veracruzana, Cinvestav-México, Univ. Nacional Autónoma de México.*

2:00 PP18 **646.10** Detrusor underactivity is associated with the decrease of gap junctional nomal signals in the aging bladder in rats. T. OSHIRO; M. MIYAZATO*; R. NAMITOME; S. SAITO. *Univ. of the Ryukyus.*

3:00 PP19 **646.11** Nicorandil and sodium ascorbate increase posfatigue tension in avian skeletal muscle. E. SÁNCHEZ-DUARTE; X. TRUJILLO; M. HUERTA; C. CORTÉS-ROJO; O. ORTIZ-ÁVILA; A. SAAVEDRA-MOLINA; R. MONTOYA*. *Univ. de Colima, UMSNH.*

4:00 PP20 **646.12** Positron emission tomography imaging of muscle blood flow heterogeneity in younger and older men during fatiguing contractions. J. WEISSMAN; M. BUCCI; M. SEPPÄNEN; K. KASKINORO; K. KALLIOKOSKI; T. RUDROFF*. *Colorado State Univ., Univ. of Turku and Turku Univ. Hospital, 2Turku PET Ctr.*

1:00 PP21 **646.13** ● Participation in elite sports improves neuromuscular control as detected by the Lower Extremity Strength-Dexterity Test. E. L. LAWRENCE*; M. A. LYLE; V. FRONTULL; O. KRENN; D. LORENZI; M. POSCH; M. ZARFL; B. GONDOLATSCH; S. KERNBEISS; I. WERNER; F. J. VALERO-CUEVAS. *USC, USC, Univ. of Innsbruck.*

POSTER

647. Cerebellum: Cortex and Nuclei: *In Vivo* Studies

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 PP22 **647.01** Timing activity in the lateral cerebellum. R. T. RAGHAVAN*; V. PREVOSTO; R. DARIE; M. A. SOMMER. *Duke Univ., Duke Univ.*

2:00 PP23 **647.02** Evidence for involvement of lateral cerebellum in executive control and performance monitoring. V. PREVOSTO*; R. T. RAGHAVAN; M. A. SOMMER. *Duke Univ., Duke Univ., Duke Univ.*

3:00 PP24 **647.03** Pro- and antisaccade purkinje cell activity in oculomotor vermis and lateral cerebellum. E. AVILA*; M. GODSCHALK; P. ROELFSEMA; C. VAN DER TOGT; P. HOLLAND; P. THIER; M. A. FRENS; C. I. DE ZEEUW. *Erasmus MC, Netherlands Inst. for Neurosci., Hertie Inst. for Clin. Brain Res.*

4:00 QQ1 **647.04** Saccade-related neurons in the caudal fastigial nucleus are more diverse than hitherto assumed. Z. SUN*; M. JUNKER; P. DICKE; P. THIER. *Hertie Inst. for Clin. Brain Research, Univ. of Tübingen.*

1:00 QQ2 **647.05** Response properties of mossy fibers, Purkinje cells, and granular layer interneurons of the macaque cerebellar flocculus during oculomotor behaviors. P. M. BLAZQUEZ*; J. F. P. LAURENS. *Washington Univ., ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE.*

2:00 QQ3 **647.06** Complex spikes in the vestibulo-cerebellum encode a priori probability. J. LAURENS*; D. E. ANGELAKI. *Ecole Polytechnique Fédérale de Lausanne, Baylor Col. of Med.*

3:00 QQ4 **647.07** Movement-related activities of cerebellar nuclear cells support forward model hypothesis. T. ISHIKAWA*; S. TOMATSU; Y. TSUNODA; D. S. HOFFMAN; S. KAKEI. *Tokyo Metropolitan Inst. of Med. Sci., Natl. Ctr. of Neurol. and Psychiatry, Tokyo Metropolitan Inst. of Med. Sci., Univ. of Pittsburgh Sch. of Med., Univ. of Pittsburgh Sch. of Med.*

4:00 QQ5 **647.08** Distinguishing between conditioned Purkinje cell responses and synapse strength modulation *in vivo*. J. F. JOHANSSON*; G. HESSLOW; D. JIRENHED; A. RASMUSSEN. *Lund Univ., Dept. of Exptl. Med. Sci.*

1:00 QQ6 **647.09** Responses in cerebellar nucleus neurons following optogenetic stimulation of olivary input using transgenic mice. H. LU; B. YANG*; D. JAEGER. *PCOM - GA Campus, Emory Univ.*

2:00 QQ7 **647.10** Ensemble dynamics and coding of cerebellar Purkinje neurons' complex spiking activities during a targeted arm-reaching task in mice. M. WAGNER*; M. J. SCHNITZER. *Stanford Univ., HHMI.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 QQ8 **647.11** Optogenetic dissection of granular layer input-output function. K. PIETRAJTIS*; O. HERNANDEZ-CUBERO; S. DIEUDONNÉ. *Ecole Normale Superieure, Univ. Paris Descartes.*

4:00 QQ9 **647.12** High speed video and optrode monitoring of the effects of optogenetic manipulation of Purkinje neurons. P. J. MATHEWS*; K. LEE; S. A. JAMI; R. E. SERRANO; T. S. OTIS. *UCLA, UCLA, UCLA.*

1:00 QQ10 **647.13** Characterizing the effects of sum of sine stimuli on the linearity of the compensatory eye movement system. T. M. SIBINDI*; P. J. HOLLAND; M. GINZBURG; O. DONCHIN; M. A. FRENS. *Erasmus MC, Ben - Gurion Univ.*

2:00 QQ11 **647.14** The signaling properties of cerebellar granule cells during optokinetic tracking. S. SYLVESTER*; M. LEE; S. LIM; K. DAIE; M. GOLDMAN; E. AKSAY. *Weill Cornell Med. Col., Univ. of California at Davis, Cornell Univ.*

3:00 QQ12 **647.15** Impairment of cerebellar microzonal organization by aberrant climbing fiber to Purkinje cell wiring in GluRδ2 (GluD2) knockout mouse. H. MIKI*; T. MIYAZAKI; K. SAKIMURA; M. WATANABE; K. KITAMURA; M. KANO. *Saitama Med. Univ., Hokkaido Univ. Grad. Sch. of Med., Brain Res. Institute, Niigata Univ., Grad. Sch. of Medicine, Univ. of Tokyo, PRESTO, Japan Sci. and Technol. Agency.*

4:00 QQ13 **647.16** Unraveling the mechanistic pathway of trans-cranial direct current stimulation (tDCS) in cerebellar learning. S. DAS*; M. A. FRENS; O. DONCHIN. *Erasmus MC, Ben Gurion Univ. of the Negev.*

1:00 QQ14 **647.17** Role of the murine cerebellum in non-motor tasks. E. GALLIANO*; J. POTTERS; Y. ELGERSMA; W. WISDEN; S. A. KUSHNER; C. I. DE ZEEUW; F. E. HOEBEEK. *Erasmus MC, Erasmus MC, Imperial Col., Erasmus MC, Netherlands Inst. for Neurosci.*

2:00 QQ15 **647.18** Selective contribution of local inhibition to cerebellar timing. G. Q. ZHAO*; A. I. CHEN; A. SUVRATHAN; L. BONANNO; B. T. D. NGUYEN-VU; T. CHARTRAND; M. S. GOLDMAN; L. F. REICHARDT; J. L. RAYMOND. *Stanford Univ., Nanyang technological Univ., UC Davis, UC DAVIS, UCSF.*

3:00 QQ16 **647.19** Newborn mice lacking muscle spindles exhibit reduced twitch-related Purkinje cell activity during active sleep. B. D. UITERMARKT*; G. SOKOLOFF; J. A. WEINER; B. FRITZSCH; M. S. BLUMBERG. *The Univ. of Iowa, The Univ. of Iowa.*

4:00 QQ17 **647.20** Presynaptic morphological correlates of VOR motor learning in parallel fibers of the cerebellar flocculus. O. C. WINTER*; L. LI; J. L. RAYMOND. *Stanford Dept of Neurobio., Stanford Univ.*

1:00 QQ18 **647.21** Dual recordings from cerebellar interneurons and Purkinje cells *in vivo.* C. ARLT*; C. D. WILMS; M. HÄUSSER. *Wolfson Inst. For Biomed. Res.*

2:00 QQ19 **647.22** Cerebellar integration in cortical sensorimotor circuits for the control of voluntary movements. R. PROVILLE*; M. SPOLIDORO; N. GUYON; F. SELIMI; P. ISOPE; D. POPA; C. LÉNA. *IBENS, Collège de France, Univ. de Strasbourg.*

3:00 QQ20 **647.23** Simple and complex spike activity of Purkinje cells during performance and extinction of conditioned eyelid movements. S. OHMAE*; J. F. MEDINA. *Univ. of Pennsylvania.*

4:00 QQ21 **647.24** Simultaneous recordings from vibrissal sensory areas of cerebellum and neocortex during active whisking movements. D. A. CEBALLOS; N. P. NGUYEN; S. S. ANWAR; R. K. JONES; K. A. ELLIS; N. A. VUKMER; H. LU*. *PCOM - Georgia Campus.*

1:00 QQ22 **647.25** Purkinje cell complex spike activity during active sleep in newborn rats. G. SOKOLOFF*; B. D. UITERMARKT; M. S. BLUMBERG. *The Univ. of Iowa, The Univ. of Iowa.*

2:00 QQ23 **647.26** Mossy fiber contributions to deep cerebellar nuclear excitation *in vivo.* F. L. BENGTSSON*; H. JÖRNTELL. *Univ. of Lund, BMC F10, Univ. of Lund, BMC F10.*

3:00 QQ24 **647.27** Theta modulation of very high frequency synchrony in the cerebellum. J. GROTH*; G. ORDEK; M. SAHIN. *New Jersey Inst. of Technol.*

POSTER

648. Oscillations in Basal Ganglia Circuits

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 QQ25 **648.01** High gamma cortical activity in the development of L-dopa-induced dyskinesia in a rodent model of Parkinson's disease. K. B. DUPRE*; A. V. CRUZ; C. M. GERBER; K. W. EYRING; J. R. WALTERS. *NIH NINDS.*

2:00 QQ26 **648.02** Motor cortex and prefrontal cortex show coherence with subthalamic nucleus activity in different beta and gamma frequency ranges in awake behaving hemiparkinsonian rats. C. DELAVILLE*; C. M. GERBER; A. J. MCCOY; A. V. CRUZ; J. R. WALTERS. *NIH NINDS.*

3:00 RR1 **648.03** Dissociation of high frequency (100 Hz) oscillatory activity within the thalamocortical network from L-DOPA-induced dyskinesia in hemiparkinsonian rats. E. BRAZHNIK; N. I. NOVIKOV; K. B. DUPRE; M. I. WAHBA; A. J. MCCOY; J. R. WALTERS*. *NIH NINDS.*

4:00 RR2 **648.04** Excessive oscillatory dynamics in the cortico-striato-nigral network in rodent models of Parkinson's disease and L-dopa-induced dyskinesia. A. V. CRUZ*; K. B. DUPRE; K. W. EYRING; C. M. GERBER; A. J. MCCOY; C. DELAVILLE; J. R. WALTERS. *NIH NINDS.*

1:00 RR3 **648.05** Propagation of beta oscillations in the basal ganglia-thalamo-cortical loop. A. QUACH*; M. MCCARTHY; N. KOPELL; X. HAN. *Boston Univ.*

2:00 RR4 **648.06** Dopamine-dependent plateau potentials and subthreshold oscillations in striatal TH interneurons. O. IBANEZ-SANDOVAL*; H. S. XENIAS; T. KOÓS; J. M. TEPPER. *Rutgers Univ., Rutgers Univ.*

3:00 RR5 **648.07** ▲ Electromyographic characterization of the local frequency of tremulous jaw movement induced by haloperidol and ventrolateral striatum electrolytic lesion in male rats. G. HERRERA-MEZA*; P. GARCIA-BAÑUELOS; A. MARTINEZ; G. CORIA-AVILA; L. LOPEZ-MERAZ; C. PEREZ; R. TOLEDO; J. MANZO; M. MIQUEL; L. GARCIA. *Ctr. De Investigaciones Cerebrales, Univ. Veracruzana, Ctr. de Investigaciones Biomedicas, Area de Psicobiologia, Univ. Jaume I.*

4:00 RR6 **648.08** Altered network state of the subthalamic nucleus and substantia nigra pars reticulata between spontaneous and purposive saccades. J. J. JANTZ*; M. WATANABE; D. P. MUNOZ; R. LEVY. *Queen's Univ., Queen's Univ.*

1:00 RR7 **648.09** Perturbing rhythmic firing in subthalamic neuron with noise. C. J. WILSON*; D. BARRAZA; T. TROYER; M. A. FARRIES. *Univ. Texas San Antonio.*

2:00 RR8 **648.10** Modulation of spike time variability on the shape and type of phase response curves of oscillating basal ganglia neurons. R. DODLA*; C. J. WILSON. *Univ. Texas at San Antonio.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 RR9 **648.11** Ionic mechanism of spike threshold accommodation in subthalamic neurons. M. A. FARRIES*; C. J. WILSON. *Univ. Texas San Antonio.*

4:00 RR10 **648.12** Cell-type specific action potential phase-locking in striatal neurons. J. A. BEATTY*; S. C. SONG; C. J. WILSON. *Univ. of Texas at San Antonio.*

POSTER

649. Posture and Gait: Aging, Injury, and Disease

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 RR11 **649.01** Dynamic ankle muscle control and postural steadiness in older adults. R. PAXTON*; E. N. BOESEL; A. M. GROSSMAN; M. L. FRITZ; A. M. JONES; M. K. TRABERT; B. G. MURPHY; R. F. REISER, II; B. L. TRACY. *Colorado State Univ.*

2:00 RR12 **649.02** Association between vitamin D receptor gene polymorphism and postural balance in elderly. M. P. FERNANDES*; R. A. SILVA; E. D. RUZZON; M. R. OLIVEIRA; V. S. PROBST; K. B. P. FERNANDES; R. C. POLI-FREDERICO. *Univ. of Northern Parana (UNOPAR), Univ. of Northern Parana (UNOPAR).*

3:00 RR13 **649.03** Association between postural balance and bone mineral density in elderly. K. B. FERNANDES*; M. C. BOER; A. S. MARQUEZ; D. C. TEIXEIRA; D. A. A. PIRES-OLIVEIRA; M. T. P. FERNANDES; R. A. SILVA. *Univ. of Northern Parana (UNOPAR), Univ. of Northern Parana (UNOPAR), Univ. of Northern Parana (UNOPAR), State Univ. of Londrina, Univ. of Northern Parana (UNOPAR).*

4:00 RR14 **649.04** The effect of visual feedback on sway in elderly compared to age matched diabetic subjects. F. ALSHAMMARI*; J. PETROFSKY; N. DAHER; S. DEHOM; E. ALZOGHBIEH; M. LAYMON. *Loma Linda Univ.*

1:00 RR15 **649.05** Effects of joint fixation in the leg and trunk on anticipatory postural control during bilateral shoulder flexion in the elderly. K. FUJIWARA*; C. YAGUCHI; M. IREI; M. MAEKAWA. *Kanazawa Univ., Hokkaido Bunkyo Univ., Osaka Hlth. Sci. Univ., Kanazawa Univ.*

2:00 RR16 **649.06** Self-triggered sensory-cued training alters correlations between vertical and horizontal ground reaction forces during step initiation in persons with Parkinson's disease. R. A. CREATH*; M. PRETTYMAN; L. SHULMAN; M. HILLIARD; K. MARTINEZ; C. D. MACKINNON; M. MILLE; T. SIMUNI; J. ZHANG; M. W. ROGERS. *Univ. of Maryland Med., Univ. of Maryland Med., Northwestern Univ. Feinberg Sch. of Med., Univ. of Minnesota.*

3:00 RR17 **649.07** Supraspinal influence on tonic neuromuscular processing in postural musculature in healthy, aging, and PD populations. M. BRAVERMAN; R. LAUER; W. WRIGHT*. *Temple Univ., Temple Univ.*

4:00 RR18 **649.08** A sensor fusion deficit in individuals with Parkinson's disease. J. J. JEKA*; S. HWANG; P. AGADA; T. KIEMEL. *Temple Univ., Univ. of Maryland.*

1:00 RR19 **649.09** Supraspinal control of locomotion in people with Parkinson disease. D. S. PETERSON*; K. A. PICKETT; G. M. EARHART. *Washington Univ. In St. Louis.*

2:00 RR20 **649.10** Balance control of persons with Parkinson's disease during stair ascent. H. LEE*; J. SKINNER; C. J. HASS. *Univ. of Florida.*

3:00 RR21 **649.11** ● Continuous monitoring with wearable sensors to differentiate healthy from impaired infant development. B. A. SMITH*; M. EL-GOHARY; F. B. HORAK. *Oregon Hlth. and Sci. Univ., APDM, Inc.*

4:00 RR22 **649.12** ● Instrumented Push and Release Test (IPUSH) for postural responses using wearable inertial sensors. M. EL-GOHARY*; B. SMITH; P. CARLSON-KUHTA; F. B. HORAK. *APDM Inc., OHSU.*

1:00 RR23 **649.13** Turning stability in people with Parkinson's disease. S. MELLONE*; M. MANCINI; L. CHIARI; J. NUTT; F. HORAK. *DEI - Univ. of Bologna, Oregon Hlth. and Sci. Univ.*

2:00 RR24 **649.14** ● Acute and post-acute assessment of postural control and cognitive efficiency following concussion. L. A. KING*; F. HORAK; K. C. PRIEST; J. CHESNUTT; S. WALKER; J. C. CHAPMAN. *OHSU, OHSU, OHSU, Veterans Affairs Med. Ctr., Georgetown Univ. Sch. of Med.*

3:00 RR25 **649.15** ● Feasibility of relating continuous monitoring of turning mobility to fall risk and cognitive function. M. MANCINI*; M. EL-GOHARY; R. MEYER; S. PEARSON; L. HOLMSTROM; J. MCNAMES; F. B. HORAK. *Oregon Hlth. and Sci. Univ., APDM, Inc.*

4:00 RR26 **649.16** ● Static balance assessments under single- and dual-task conditions in mild cognitive impairment. J. M. LEACH*; M. MANCINI; J. A. KAYE; F. B. HORAK; T. L. HAYES. *Oregon Hlth. & Sci. Univ., Oregon Hlth. & Sci. Univ.*

1:00 SS1 **649.17** ● Quantifying effects of age on balance and gait in community-dwelling healthy adults with inertial sensors. J. PARK*; C. CURTZE; M. MANCINI; P. CARLSON-KUHTA; F. B. HORAK. *Oregon Hlth. & Sci. Univ.*

2:00 SS2 **649.18** Visual information and postural control deficits in patients with mal de debarquement syndrome. J. S. THOMAS*; S. L. HONG; M. NAKAZAWA; B. C. CLARK. *Ohio Univ., Ohio Univ.*

3:00 SS3 **649.19** Altered motor strategy during gait initiation in persons with progressive supranuclear palsy. C. J. HASS*; S. AMANO; J. SKINNER; H. LEE; E. STEGEMOLLER; N. HACK; U. AKBAR; N. MCFARLAND. *Univ. of Florida, Univ. of Florida.*

4:00 SS4 **649.20** Asymmetry in lower-extremity coordination during walking in stroke patients. Z. ZHANG*; P. PLUMMER; D. STERNAD. *Northeastern Univ., Northeastern Univ., Univ. of North Carolina at Chapel Hill, Northeastern Univ.*

1:00 SS5 **649.21** Effects of obstacle ambulation training program on gait control during obstacle crossing in an individual with cerebellar ataxia: A case study. S. IM*; J. PARK. *Korea Univ.*

2:00 SS6 **649.22** Using the sit-to-stand transition to quantify transients of balance control. B. BADIUK*; K. VAN OOTENGHEM; M. SARRATT; W. E. MCILROY. *Univ. of Waterloo, Dept. of Kinesiology Univ. of Waterloo, Schlegel-UW Res. Inst. for Aging, Mobility Team, Toronto Rehabil. Inst., Heart & Stroke Fndn. Ctr. for Stroke Recovery.*

3:00 SS7 **649.23** Chronic hyponatremia causes gait disturbance in rats. H. FUJISAWA*; Y. SUGIMURA; H. MIZOGUCHI; H. TAKAGI; H. IZUMIDA; K. NAKASHIMA; K. OGAWA; S. TAKEUCHI; H. OCHIAI; A. KIYOTA; H. SUGA; H. TAKEUCHI; Y. MURATA; Y. OISO. *Nagoya Univ. Grad. Sch. of Med. Endrocrinol. and Diabetes, Nagoya University, Resrerch Inst. of Enviromental Med.*

4:00 SS8 **649.24** Deficits in working memory related to obstacle avoidance during locomotion in Alzheimer's disease mutant mice. S. SETOGAWA*; H. YAMAURA; S. ENDO; D. YANAGIHARA. *Tokyo Univ., JSPS Res. Fellow, Tokyo Metropolitan Geriatric Hosp. and Inst. of Gerontology.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

POSTER

650. Reaching Control: Movement Selection and Strategy

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 SS9 **650.01** The influence of spatial cues on reaction time during a cued reaching task. R. DESAI*; W. HUDDLESTON. *Univ. of Wisconsin At Milwaukee, Univ. of Wisconsin at Milwaukee.*

2:00 SS10 **650.02** Arm choice in fast horizontal movements depends on effort, accuracy or success rate? Y. XIAO*; T. YOSHIOKA; J. GORDON; R. OSU; N. SCHWEIGHOFER. *USC, Advanced Telecommunications Res. Inst. Intl., USC.*

3:00 SS11 **650.03** Motor planning in the gravitational field: How do monkeys reach? J. GAVEAU*; C. PAPAXANTHIS; D. W. MORAN; D. E. ANGELAKI. *Baylor Col. of Med., INSERM U1093, Univ. of Burgundy, Washington Univ. in St. Louis.*

4:00 SS12 **650.04** Directional tuning width determines directional output accuracy. M. Y. MAHAN*; A. P. GEORGOPOULOS. *Brain Sci. Ctr., Univ. of Minnesota, Univ. of Minnesota.*

1:00 TT1 **650.05** Quantifying differences in reach behavior towards a 3D perspective visual illusion. J. NGUYEN*; R. W. ISENHOWER; P. YANOVICH; J. H. RAVALIYA; T. V. PAPATHOMAS; E. B. TORRES. *Rutgers Univ., Rutgers Univ., Rutgers Univ., Rutgers Univ., Rutgers Univ., Rutgers Univ., Rutgers Univ., Rutgers Univ.*

2:00 TT2 **650.06** When a target is an obstacle - a computational model integrating approach and avoid action selection. P. R. SCHRATER*; V. CHRISTOPOULOS. *Univ. Minnesota, Caltech.*

3:00 TT3 **650.07** Arm selection patterns during unilateral and bilateral virtual object transport. S. AKPINAR*; A. PRZYBYLA; R. L. SAINBURG. *Nevsehir Univ., The Pennsylvania State Univ., The Pennsylvania State Univ.*

4:00 TT4 **650.08** An internal model guides specification of actions during the reaction time. A. M. HAITH*; D. M. HUBERDEAU; J. W. KRAKAUER. *Johns Hopkins Sch. of Med.*

1:00 TT5 **650.09** The role of the corticostriatal circuit in the shifting of motor behavior. M. J. TAMTÈ*; U. RICHTER; P. PETERSSON. *Lunds Universitet, Lunds Universitet, Exptl. Med. Sci.*

2:00 TT6 **650.10** Brainstem nucleus MdV orchestrates skilled limb motor tasks. M. S. ESPOSITO*; P. CAPELLI; S. ARBER. *Friedrich Miescher Inst., Biozentrum, Univ. of Basel.*

3:00 TT7 **650.11** Fitting a minimum-jerk trajectory to real data. S. K. CHARLES*; L. H. SALMOND. *Brigham Young Univ., Brigham Young Univ.*

4:00 TT8 **650.12** Horizontal curvature is influenced by movement effort. R. M. BONGERS*; I. TUITERT; F. T. J. M. ZAAL; L. J. MOUTON; M. M. SCHOEMAKER. *Univ. of Groningen, Univ. Med. Ctr. Groningen.*

1:00 TT9 **650.13** Contribution of interposito-rubrospinal pathway to muscle synergies underlying reaching to grasp. S. GEED*; M. L. MCCURDY; P. L. E. VAN KAN. *Univ. of Wisconsin Madison.*

2:00 TT10 **650.14** Age-related differentiation of sensorimotor control strategies during pursuit and compensatory tracking. M. HEENAN*; R. A. SCHEIDT; S. A. BEARDSLEY. *Marquette Univ., Northwestern Univ. Feinburg Sch. of Med., Med. Col. of Wisconsin, Med. Col. of Wisconsin, Boston Univ.*

3:00 TT11 **650.15** Pointing into uncertainty: The effect of movement and goal related variables in biasing action selection. V. ENACHESCU*; V. CHRISTOPOULOS; P. SCHRATER; S. SCHAAL. *USC, Caltech, Univ. of Minnesota.*

4:00 TT12 **650.16** The effect of cathodal transcranial direct current stimulation (tDCS) on reaching movements in healthy adults. R. M. CHAPMAN; C. YEN; S. M. MORTON*. *Univ. of Iowa, Univ. of Iowa, Univ. of Delaware.*

1:00 UU1 **650.17** ▲ Beta-band modulation by directional uncertainty during motor planning. S. WEST; C. TZAGARAKIS; G. PELLIZZER*. *Univ. of Minnesota, VA Med. Ctr.*

2:00 UU2 **650.18** The spoon task: A trajectory-constrained speed-accuracy trade-off task in children with dystonia. F. LUNARDINI; M. BERTUCCO*; N. BHANPURI; C. CASELLATO; A. PEDROCCHI; D. STERNAD; T. D. SANGER. *Politecnico di Milano, USC, Northeastern Univ., USC.*

3:00 UU3 **650.19** Identification of regions and neural patterns relating limb selection using decoding of event-related and ongoing activity. K. AMEMIYA*; H. KURASHIGE; H. YOKOYAMA; J. IZAWA; R. OSU. *Advanced Telecommunications Res. Inst. Intl., Nagaoka Univ. of Technol.*

4:00 UU4 **650.20** The corticoreticulospinal pathway from the supplementary motor area - an alternative pathway for upper limb muscle activity. L. R. MONTGOMERY*; L. B. JAKEMAN; J. BUFORD. *The Ohio State Univ., The Ohio State Univ., The Ohio State Univ., The Ohio State Univ.*

1:00 UU5 **650.21** Chaos as source of variability in a discrete manipulation task. B. NASSEROLESLAMI*; C. J. HASSON; D. STERNAD. *Northeastern Univ., Northeastern Univ., Northeastern Univ.*

2:00 UU6 **650.22** Biomechanics and motor control of a fictive amputee model system (FAMS). W. CUSACK*; R. PATTERSON; S. THACH; R. S. KISTENBERG; L. A. WHEATON. *Georgia Inst. of Technol.*

3:00 UU7 **650.23** Motor planning and fine motor ability in children with autism spectrum disorder. C. J. KETCHAM*; J. L. SIMERMEYER. *Elon Univ.*

POSTER

651. Voluntary Motor Control: Inter-Limb and Bimanual Control

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 UU8 **651.01** Constraints in bimanual coordination depend on a salience in movements. T. MURAOKA*; K. NAKAGAWA; K. KANOSUE. *Nihon Univ. Col. of Econ., Waseda Univ., Waseda Univ., Waseda Univ.*

2:00 UU9 **651.02** Prolonged training during visuomotor adaptation does not result in a greater extent of interlimb transfer. J. WANG*; Y. LEI. *Univ. of Wisconsin.*

3:00 UU10 **651.03** Pushing hand posture influences success rate in rhesus monkeys performing a bimanual task. S. M. HYNES*; S. J. KLEIN; W. G. DARLING; M. A. PIZZIMENTI; J. GE; K. S. MORECRAFT; R. J. MORECRAFT. *Univ. of Iowa, Univ. of Iowa, Univ. of Iowa, Univ. of South Dakota.*

4:00 UU11 **651.04** ▲ Modulation of physiological mirror activity with transcranial direct current stimulation over bilateral dorsal premotor cortex. V. BEAULÉ*; C. RAYMOND; S. TREMBLAY; H. THÉORET. *Univ. of Montreal, Univ. of Montreal, CHU Ste-Justine.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 UU12 **651.05** Influence of contextual cues on inter-manual transfer in motor learning. A. SARWARY*; L. P. J. SELEN; D. F. STEGEMAN; W. P. MEDENDORP. *Donders Inst. For Brain, Cognition and Behaviour, Donders Inst. for Brain, Cognition and Behaviour.*

2:00 UU13 **651.06** Dynamic primitives for learning and performance of complex movements. N. HOGAN*; D. STERNAD. *MIT, Northeastern Univ.*

3:00 UU14 **651.07** Effects of transient unilateral ischemic nerve block on bilateral motor control: A longitudinal study. L. A. WHEATON*; R. T. BYRD; J. COHEN; L. EBRON; D. TOMECK; D. LEE; K. NEARY; J. MIZELLE; D. BACKUS. *Georgia Tech., Emory Univ. Sch. of Med., Shepherd Ctr.*

4:00 UU15 **651.08** Asymmetry in interlimb transfer reveals hemispheric specialization for trajectory skill task. H. S. BAWEJA*; R. L. SAINBURG. *Pennsylvania State Univ., Pennsylvania State Univ.*

1:00 UU16 **651.09** ● Intra-cortical and interhemispheric inhibition during a bimanual force task with asymmetric levels of force magnitude. J. SHARMA*; D. CUNNINGHAM; C. BONNET; N. VARNERIN; S. CUCCI; D. ALLEXANDRE; A. MACHADO; E. PLOW. *Cleveland Clin., Kessler Fndn.*

2:00 UU17 **651.10** Age-, sex- and experience-related differences in bimanual coordination using whole-hand versus precision grasping. D. ALBINES; J. A. GRANEK; L. E. SERGIO*. *York Univ.*

3:00 UU18 **651.11** Plasticity of interhemispheric interference in an asymmetric bimanual task. S. PARK*; J. EBERT; D. STERNAD. *Northeastern Univ., Northeastern Univ., Northeastern Univ.*

4:00 UU19 **651.12** Unimanual and bimanual hand actions in a trained prehension task. J. CHEN; J. L. BAKER; E. P. GARDNER*. *New York Univ. Sch. Med., Weill Cornell Med. Col.*

1:00 UU20 **651.13** Controlling cyclic arm movements while cycling under altering external conditions. J. LACZKO*; M. MRAVCSIK; Z. GYORFFI. *Pazmany Peter Cath. Univ., Universiy of Pecs, Semmelweis Univ.*

2:00 UU21 **651.14** Abnormal interhemispheric motor interactions in patients with callosal agenesis. E. GENC*; W. SINGER; O. GÜNTÜRKÜN. *Ruhr Univ. Bochum, Max Planck Inst. for Brain Res.*

3:00 UU22 **651.15** Motor lateralization determines the direction and sign of interlimb transfer. V. YADAV*; R. SAINBURG. *Pennsylvania State Univ., Pennsylvania State Univ.*

4:00 UU23 **651.16** Bilateral Coordination during virtual object transport tasks: Coupling or Synergy? A. PRZYBYLA*; R. L. SAINBURG. *The Pennsylvania State Univ., The Pennsylvania State Univ.*

1:00 UU24 **651.17** Contralateral connectivity of monkey **POSTER**ior parietal cortex. A. O. MAYER*; N. DIAS; R. E. BITTENCOURT-NAVARRETE; J. G. FRANCA. Federal Univ. of Rio De Janeiro.

POSTER

652. Stroke, Damage, or Disease: Mechanisms of Abnormal Movement

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 UU25 **652.01** Frontal plane center of mass perturbations during treadmill walking reveal altered dynamic balance control strategy post-stroke. E. R. WALKER*; A. S. HYNGSTROM; B. D. SCHMIT. *Marquette Univ., Marquette Univ.*

2:00 UU26 **652.02** Evaluating severity of post-stroke spasticity through resting joint angle measurement. M. BHADANE*; G. GAO; G. FRANCISCO; P. ZHOU; S. LI. *The Univ. of Texas Hlth. Sci. Ctr. – Houston, TIRR Mem. Hermann Hosp., The Univ. of Texas Southwestern Med. Ctr., TIRR Mem. Hermann Hosp., Rehabil. Inst. of Chicago, TIRR Mem. Hermann Hosp.*

3:00 VV1 **652.03** Increased hip adductor, as opposed to reduced hip abductor activity, may explain hip abductor weakness during isometric hip extension in the paretic lower extremity following stroke. N. SANCHEZ*; R. LOPEZ-ROSADO; J. P. A. DEWALD. *Northwestern Univ., Northwestern Univ.*

4:00 VV2 **652.04** Assessment of the contralesional corticospinal tract in pediatric hemiplegia. R. L. HAWE*; J. P. A. DEWALD. *Northwestern Univ.*

1:00 VV3 **652.05** Changes in motor system functional connectivity with robotic therapy in chronic stroke. E. BURKE*; L. DODAKIAN; J. SEE; A. MCKENZIE; V. LE; S. C. CRAMER. *UC Irvine, Chapman Univ.*

2:00 VV4 **652.06** Arm kinematics during blind and visually guided movements in hemiparetic stroke survivors. L. S. SIMO*; D. PIOVESAN; L. BOTZER; M. BENGSTON; C. P. GHEZ; R. A. SCHEIDT. *Northwestern Univ., Rehabil. Inst. of Chicago, Marquette Univ., Columbia Univ.*

3:00 VV5 **652.07** The impact of shoulder abduction loading on the ability to grasp and release following stroke. Y. LAN*; J. YAO; J. DEWALD. *Northwestern Univ.*

4:00 VV6 **652.08** Consolidation of motor memory in Cerebral Palsy reveals independent savings and retention processes. F. MAWASE*; S. BAR-HAIM; A. KARNIEL. *Ben-Gurion Univ.*

1:00 VV7 **652.09** ● Feasibility of ICMS-triggered averaging of EMG activity for longitudinal cortical mapping in a squirrel monkey model of focal cortical injury. S. L. DEJONG*; S. BARBAY; D. W. MCNEAL; S. B. FROST; P. D. CHENEY; R. J. NUDO. *Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr., Univ. of Kansas Med. Ctr.*

2:00 VV8 **652.10** Structural vs. functional corticospinal tract integrity serving plantarflexors post-stroke. V. L. LITTLE*; T. E. MCGUIRK; N. LODHA; C. PATTEN. *Univ. of Florida, Malcom Randall VA Med. Ctr., Univ. of Florida.*

3:00 VV9 **652.11** Alterations in upper limb synergy structure with level of motor impairment in chronic stroke survivors. J. ROH*; W. Z. RYMER; E. J. PERREAULT; R. F. BEER. *Rehabil. Inst. of Chicago, Northwestern Univ., Northwestern Univ.*

4:00 VV10 **652.12** VLSI emulation of motor overflow in focal hand dystonia. W. SOHN*; C. M. NIU; T. D. SANGER. *USC.*

1:00 VV11 **652.13** Modulation of upper extremity flexion synergy during a reaching task through transcranial direct cortical stimulation in chronic stroke. J. YAO*; J. M. DROGOS; C. ANDERSON; J. CONCHA URDAY ZA; L. IMMING; J. DEWALD. *Northwestern Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 VV12 **652.14** Cortical representation in the internal capsule in chronic stroke: Preliminary results from a diffusion tensor imaging study. M. OWEN*; N. SANCHEZ; J. P. A. DEWALD. *Northwestern Univ. Feinberg Sch. of Med., Northwestern Univ., Northwestern Univ.*

3:00 VV13 **652.15** Differences in trunk muscle coordination between non-neurologically impaired adults and stroke survivors during reaching beyond arm's length. G. GERA DUTTA*; K. MCGLADE; J. P. SCHOLZ. *Oregon Hlth. Sci. Univ., Univ. of Delaware, Univ. of Delaware.*

4:00 VV14 **652.16** The modulation of hemispheric activity during bimanual gripping following stroke. N. LODHA*; W. J. TRIGGS; C. PATTEN. *Univ. of Florida, Univ. of Florida, Univ. of Florida.*

1:00 VV15 **652.17** Neurophysiological correlates of motor recovery after focal stroke. T. GULATI*; C. C. WONG; K. GANGULY. *San Francisco VA Med. Ctr.*

2:00 VV16 **652.18** Primary motor cortex activation correlates better with kinematic than clinical metrics of arm motor impairment in chronic stroke. A. A. BANI-AHMED*; R. J. NUDO; C. R. SAVAGE; W. M. BROOKS; J. A. WICK; S. C. CRACIUNAS; C. M. CIRSTEA. *Univ. of Kansas Med. Ctr., Neurosurg.Unit IV, Bagdasar-Arseni Hosp.*

3:00 VV17 **652.19** Motor cortical reorganization and "true" recovery after stroke. C. M. CIRSTEA*; A. BANI-AHMED; R. J. NUDO; C. R. SAVAGE; W. M. BROOKS; S. C. CRACIUNAS. *Univ. Kansas Med. Ctr., Neurosurg. Unit IV, Bagdasar-Arseni Hosp.*

4:00 VV18 **652.20** Measures of motor skill and spontaneous recovery in the acute phase after stroke based on the speed accuracy trade-off. A. SCHÖCHLIN-MARX*; M. ELWENSPOEK; G. PRICHARD; C. WEILLER; B. FRITSCH; J. REIS. *Univ. of Freiburg, Univ. of Freiburg, UCL London.*

1:00 VV19 **652.21** Evidence of common motor unit modulation among muscles of the flexion synergy in chronic hemiparetic stroke. L. C. MILLER*; F. NEGRO; C. J. HECKMAN; D. FARINA; J. P. A. DEWALD. *Northwestern Univ., Northwestern Univ., Univ. Med. Ctr. Göttingen, Northwestern Univ., Northwestern Univ.*

POSTER

653. Brain-Machine Interface: Recording and Decoding

Theme D: Sensory and Motor Systems

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 VV20 **653.01** A multi-objective brain machine interface(bmi)algorithm for online control: Taking bmis as a principled control problem. T. AFLALO*; B. REVECHKIS; S. KELLIS; R. ANDERSEN. *Caltech.*

2:00 VV21 **653.02** Investigation of alternative control schemes in a real-time ECoG-based BCI. J. C. LANDES*; J. J. WHEELER; P. KARANDE; J. J. WILLIAMS; D. W. MORAN. *Washington Univ., Univ. of Wisconsin.*

3:00 VV22 **653.03** An ECoG-based synchronous bi-directional brain-computer interface. J. J. WHEELER*; P. KARANDE; K. J. OTTO; D. W. MORAN. *Washington Univ., Purdue Univ.*

4:00 WW1 **653.04** ● A system for simultaneous recording and stimulation with large numbers of electrodes. S. D. HIATT; A. M. WILDER; D. A. MCDONNALL; D. R. MERRILL; K. S. GUILLORY*. *Ripple.*

1:00 WW2 **653.05** Increasing brain-machine interface performance by modeling neural population dynamics. J. C. KAO*; P. NUYUJUKIAN; J. P. CUNNINGHAM; M. M. CHURCHLAND; S. I. RYU; K. V. SHENOY. *Stanford Univ., Stanford Univ., Stanford Univ., Washington Univ., Columbia Univ., Palo Alto Med. Fndn., Stanford Univ.*

2:00 WW3 **653.06** State space characterization of M1 population activity in natural behavior and BCI control. A. S. WHITFORD*; A. B. SCHWARTZ. *Univ. of Pittsburgh, Ctr. for the Neural Basis of Cognition.*

3:00 WW4 **653.07** Tuning to reach kinematics of single-unit activity, threshold-crossings, and local field potentials in motor cortex. S. PEREL*; P. T. SADTLER; S. I. RYU; A. P. BATISTA; S. M. CHASE. *Carnegie Mellon Univ., Univ. of Pittsburgh, Stanford Univ.*

4:00 WW5 **653.08** ● Individual and population adaptation in neuronal ensemble during bmi controlled task. M. ARMENTA SALAS*; D. DUNNING; S. I. HELMS TILLERY. *Arizona State Univ., Arizona State Univ.*

1:00 WW6 **653.09** Missing re-afference challenges brain-machine interfaces. F. GALAN*; M. R. BAKER; K. ALTER; S. N. BAKER. *Newcastle Univ.*

2:00 WW7 **653.10** Characterization of neural tuning properties during BMI control with closed-loop decoder adaptation. A. L. ORSBORN*; J. M. CARMENA. *Univ. of California, Berkeley, Univ. of California, Berkeley, Univ. of California, Berkeley.*

3:00 WW8 **653.11** ▲ A scalable, low-power, high resolution, multi-dimensional silicon force sensor matrix. A. SCIBELLI*; J. L. KRANS. *Western New England Univ.*

4:00 WW9 **653.12** Brain-machine interface control with local field potentials using closed-loop decoder adaptation. K. SO*; S. DANGI; A. L. ORSBORN; M. C. GASTPAR; J. M. CARMENA. *UC Berkeley, UC Berkeley-UCSF, Ecole Polytechnique Federale, UC Berkeley.*

1:00 WW10 **653.13** The comparison of long-term decoding stability between low and high frequency local field potentials from primate motor cortex. Y. LI*; D. WANG; Q. ZHANG; Y. WANG; S. ZHANG; X. ZHENG. *Qiushi Acad. For Advanced Studies, Dept. of Biomed. Engineering, Zhejiang Univ., Key Lab. of Biomed. Engin. of Ministry of Education, Zhejiang Univ., Sch. of Engineering, Brown Univ., Inst. For Brain Science, Brown Univ.*

2:00 WW11 **653.14** Neurons in barrel cortex turn into processing whisker and odor signals: A novel form of associative learning. J. H. WANG*; D. WANG; Z. GAO; J. ZHAO. *The Inst. Biophysics, Inst. of Biophysics, Chinese Acad. of Sci.*

3:00 WW12 **653.15** Oscillatory activity in neocortical networks during tactile discrimination near the limit of spatial acuity. B. M. ADHIKARI*; K. SATHIAN; C. M. EPSTEIN; B. LAMICHHANE; M. DHAMALA. *Georgia State Univ., Emory Univ. Sch. of Med., Georgia State Univ.*

POSTER

654. Neurosteroids and the Aging Brain

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 WW13 **654.01** Development of metabolic and physiological biomarker profiles for early detection of women with an at-risk for Alzheimer's disease phenotype. J. R. RETTBERG*; H. DANG; H. HODIS; F. STANCZYK; R. DIAZ BRINTON; W. MACK. *Univ. of Southern California, USC, USC, USC, USC.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 WW14 **654.02** Diet induced obesity in middle aged 3xTg-AD mice: Protective effects of estradiol and progesterone. A. CHRISTENSEN*; C. J. PIKE. *USC.*

3:00 WW15 **654.03** Impact of perimenopausal transition on Alzheimer-related gene expression in hippocampus of female rat model of human perimenopause. C. J. PIKE*; F. YIN; L. ZHAO; Z. MAO; T. E. MORGAN; E. HERNANDEZ; H. CHEN; C. E. FINCH; W. MACK; R. D. BRINTON. *USC, USC, USC.*

4:00 WW16 **654.04** Impact of perimenopausal transition on inflammatory gene expression in hippocampus of female rat model of human perimenopause. C. E. FINCH*; T. E. MORGAN; H. CHENG; E. CADENAS; W. MACK; E. HERNANDEZ; J. MAO; F. YIN; L. ZHAO; R. D. BRINTON. *USC, USC, USC, USC, USC.*

1:00 WW17 **654.05** NeuroSERMs as mitochondrial regulators: Reversal of ovariectomy-induced bioenergetic dysregulation. Z. MAO*; J. YAO; L. ZHAO; R. BRINTON. *USC.*

2:00 WW18 **654.06** Allopregnanolone as a regenerative therapeutic for Alzheimer's evidence for potentiation of brain mitochondrial function. J. YAO*; S. CHEN; K. C. WONG; R. D. BRINTON. *Univ. of Southern California, USC.*

3:00 WW19 **654.07** Mechanistic pathways linking mitochondrial oxidative stress and white matter degeneration in the aging mammalian female brain. L. KLOSINSKI*; J. YAO; S. CHEN; Z. MAO; L. ZHAO; R. DIAZ BRINTON. *USC, USC.*

4:00 WW20 **654.08** Allopregnanolone as a regenerative therapeutic for Alzheimer's: Evidence for enhancement of mitochondrial motility and dynamics. K. C. WONG*; J. YAO; C. HSU; S. CHEN; F. DING; R. DIAZ BRINTON. *Univ. of Southern California, Sch. of Pharm., USC.*

1:00 WW21 **654.09** A bioenergetic trajectory of female brain aging and Alzheimer's disease implications for risk prevention and treatment. R. D. BRINTON*; J. YAO; F. DING; S. CHEN; L. P. KLOSINSKI; J. R. RETTBERG; E. CADENAS. *USC, USC.*

2:00 WW22 **654.10** Impact of perimenopausal transition on bioenergetic gene expression in hippocampus of female rat model of human perimenopause. F. YIN*; L. ZHAO; J. MAO; T. MORGAN; E. HERNANDEZ; H. CHENG; C. E. FINCH; W. MACK; E. CADENAS; R. D. BRINTON. *USC, USC, USC.*

3:00 XX1 **654.11** Preclinical safety and efficacy of allopregnanolone for Alzheimer's disease therapy. R. W. IRWIN*; C. M. SOLINSKY; S. CHEN; R. D. BRINTON. *Univ. of Southern California, USC.*

4:00 XX2 **654.12** Female rat model of human perimenopause. E. HERNANDEZ; H. CHENG; L. KLOSINSKI; M. ZHU; W. MACK; R. D. BRINTON; C. E. FINCH; T. E. MORGAN*. *USC, USC, USC.*

1:00 XX3 **654.13** Allopregnanolone promotes neuronal differentiation of neural stem cells. S. CHEN*; J. YAO; K. WONG; R. BRINTON. *USC, Keck Sch. of Medicine, USC.*

2:00 XX4 **654.14** The role of PELP1 in estrogen signaling and neuroprotection. E. SCOTT*; Q. ZHANG; Y. DONG; G. R. SAREDDY; R. K. VADLAMUDI; D. W. BRANN. *Georgia Regents Univ., Univ. of Texas Hlth. Sci. Ctr. at San Antonio.*

POSTER

655. Social Behavior: Regulatory Factors

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 XX5 **655.01** Epigenetic regulation of pair-bond formation in the monogamous prairie voles. F. DUCLOT*; H. WANG; Y. LIU; Z. WANG; M. KABBAJ. *Florida State Univ., Florida State Univ., Florida State Univ., Florida State Univ.*

2:00 XX6 **655.02** Mu and kappa opioid receptor binding in the forebrain of the monogamous titi monkey (Callicebus cupreus). B. J. RAGEN*; S. P. MENDOZA; K. L. BALES. *Univ. of California, Davis, California Natl. Primate Res. Ctr.*

3:00 XX7 **655.03** The anti-epileptic drug, felbamate, alters behavioral and neuroendocrine outcomes of male rats. M. E. RHODES*; L. BARBOUR. *McDaniel Col., McDaniel Col.*

4:00 XX8 **655.04** ▲ Effects of polyphenol, EGCG on learning and memory processes of male rats. O. K. AVARITT*; K. HUDSON; C. SLEDZIK; M. E. RHODES. *McDaniel Col., McDaniel Col., McDaniel Col.*

1:00 XX9 **655.05** Medial amygdalar neurons that modulate male social behaviors. M. C. TSUDA*; T. B. USDIN. *NIMH/NIH.*

2:00 XX10 **655.06** Gestational exposure to polychlorinated biphenyls leads to a disruption of social behavior in rats. M. P. REILLY*; K. R. WILCOX; V. Y. TOPPER; L. M. THOMPSON; R. R. GILLETTE; D. P. CREWS; A. C. GORE. *The Univ. of Texas at Austin, The Univ. of Texas at Austin, The Univ. of Texas at Austin.*

3:00 XX11 **655.07** Gestational exposure of rats to endocrine disrupting chemicals alters sociosexual behaviors in adulthood. V. Y. DAVAEVA*; M. P. REILLY; J. K. CHEN; K. J. OTTO; L. M. THOMPSON; D. P. CREWS; A. C. GORE. *The Univ. of Texas at Austin, The Univ. of Texas at Austin.*

4:00 XX12 **655.08** Neonatal progestin receptor antagonism alters juvenile behavior in male and female rats. R. M. FORBES-LORMAN*; A. B. WALKER-LAMPANI; A. CUARENTA; A. P. AUGER; C. J. AUGER. *UW-Madison.*

1:00 YY1 **655.09** Comparison of stress reactivity to predator odor in promiscuous and monogamous species of Peromyscus. V. A. MACHT*; A. C. CAPPS; A. E. PERKINS; S. J. KELLY. *Univ. of South Carolina, Univ. of South Carolina.*

2:00 YY2 **655.10** Social context alters pulsatile release of plasma GnRH in female sea lamprey. Y. CHUNG-DAVIDSON*; H. WANG; W. LI. *Michigan State Univ., Michigan State Univ.*

3:00 YY3 **655.11** Social and endocrine factors associated with female mate perception: The role of group affiliation. S. V. ONYPER*; D. PONZI; L. GHIRALDI; H. LORD; M. HOYT. *St. Lawrence Univ., St. Lawrence Univ., St. Lawrence Univ.*

4:00 YY4 **655.12** The role of dopamine d1 type receptors in pair-bond maintenance in monogamous titi monkeys (callicebus cupreus). E. ROTHWELL*; S. P. MENDOZA; W. A. MASON; B. J. RAGEN; K. L. BALES. *Univ. of California-Davis, California Natl. Primate Res. Ctr.*

1:00 YY5 **655.13** Parallel functional neuroimaging and cardiac autonomic reactivity in the awake prairie vole: A new paradigm for translational investigations of the neural basis of behavior in a socially monogamous rodent. J. R. YEE; W. M. KENKEL; C. CARTER*; S. W. PORGES; C. F. FERRIS. *Northeastern Univ., Univ. of North Carolina, Univ. of North Carolina.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 YY6 **655.14** Neural mechanisms of social learning and public information use in sticklebacks. W. T. SWANEY*; M. M. WEBSTER; K. N. LALAND; S. M. READER. *McGill Univ., Univ. of St Andrews.*

3:00 YY7 **655.15** Electrophysiological activity in medial prefrontal cortex and nucleus accumbens differs across social behaviors in monogamous prairie voles. E. A. AMADEI*; A. C. SHPINER; L. J. YOUNG; R. C. LIU. *Georgia Tech. and Emory Univ., Emory Univ., Emory Univ., Emory Univ., Emory Univ., Emory Univ.*

4:00 YY8 **655.16** The resident-intruder paradigm can be utilized to produce stress-induced cardiomyopathy in the rat. C. H. WIDEMAN*; H. M. MURPHY. *John Carroll Univ., John Carroll Univ.*

1:00 YY9 **655.17** The effect of emotional distractors on spatial attention in macaque monkeys. R. LANDMAN*; J. SHARMA; M. SUR; R. DESIMONE. *MIT, MIT.*

2:00 YY10 **655.18** Social interaction, anxiety-responses, and brain activation in adult zebrafish following early social deprivation. S. SHAMS*; D. CHATTERJEE; R. GERLAI. *Univ. of Toronto Mississauga, Univ. of Toronto Mississauga.*

3:00 YY11 **655.19** Dissociation of autonomic responses from evaluation of male faces in women exposed to androstadienone. N. R. REYNOLDS*; R. L. LLOYD. *Argosy Univ., Univ. of MInneesota Duluth.*

4:00 YY12 **655.20** ▲ Social interaction precludes spontaneous salt intake sensitization and prematurely increases sodium appetite enhancement. M. M. PEREZ; R. C. VENDRAMINI; D. PEREIRA-DERDERIAN*. *Wayland Baptist Univ., São Paulo State Univ.*

1:00 ZZ1 **655.21** Social control of adult neurogenesis in the piriform cortex of naked mole-rats. D. E. PERAGINE; J. SIMPSON; S. J. MOONEY; M. M. HOLMES*, PhD. *Univ. of Toronto Mississauga.*

POSTER

656. Respiratory Regulation: Central Respiratory Chemoreception

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 ZZ2 **656.01** Pro-inflammatory cytokine expression and acute neuronal injury in the nTS following bleomycin-induced lung-injury. D. G. LITVIN; D. NETHERY; Y. HSIEH; P. M. GETSY; C. G. WILSON*; F. J. JACONO. *Case Western Reserve Univ., Case Western Reserve Univ., Case Western Reserve Univ.*

2:00 ZZ3 **656.02** Residual chemosensory response in paired-like homeobox 2B gene mutation-confirmed congenital central hypoventilation syndrome. M. S. CARROLL*; P. P. PATWARI; D. E. WEESE-MAYER. *Ann & Robert H. Lurie Children'S Hosp. of Chicago, Ann & Robert H. Lurie Children'S Hosp. of Chicago.*

3:00 ZZ4 **656.03** Medullary raphe serotonin neuron chemosensitivity is not dependent on ATP release or neuroglia. Y. WU*; A. ZAYKIN; W. WANG; M. R. HODGES; C. J. WYLIE; E. S. DENERIS; G. B. RICHERSON. *Univ. of Iowa, Yale Univ., Med. Col. of Wisconsin, Case Western Reserve Univ., VAMC.*

4:00 ZZ5 **656.04** A novel pH-sensitive calcium-activated nonselective cation current is responsible for medullary raphe 5-HT neuron chemosensitivity. C. A. MASSEY*; Y. WU; A. ZAYKIN; W. WANG; M. R. HODGES; C. J. WYLIE; E. S. DENERIS; G. B. RICHERSON. *Univ. of Iowa, Univ. of Iowa, Yale Univ., Med. Col. of Wisconsin, Case Western Reserve Univ., VAMC.*

1:00 ZZ6 **656.05** Hypercapnia augments opiate-mediated suppression of rhythmogenesis from the preBötzinger complex. A. J. GARCIA*, III; T. M. ANDERSON; J. RAMIREZ. *Seattle Childrens Res. Inst., The Univ. of Washington, Seattle Childrens Res. Inst.*

2:00 ZZ7 **656.06** D-serine, a potent modulator of fictive respiration in mouse neonates. S. BELTRAN-CASTILLO*; J. EUGENIN. *Univ. De Santiago De Chile.*

3:00 ZZ8 **656.07** Anatomy and electrophysiology of neurons in the medulla that co-localize 5-HT and thyrotropin-releasing hormone. N. M. MURRAY*; K. L. PROCH; Y. WU; E. BRAVO; C. A. MASSEY; L. P. SOWERS; G. B. RICHERSON. *Univ. of Iowa Carver Col. of Med., Howard Hughes Med. Inst., Univ. De Santiago De Chile, VAMC.*

4:00 ZZ9 **656.08** Purinergic signaling contributes to CO2-sensitivity of neurons in the retrotrapezoid nucleus but not nucleus of the solitary tract or medullary raphe. I. C. WENKER*; C. R. SOBRINHO; A. C. TAKAKURA; T. S. MORIERA; D. K. MULKEY. *Univ. of Connecticut, Univ. of Sao Paulo, Univ. of Sao Paulo.*

1:00 ZZ10 **656.09** Role of purinergic neurotransmission in different brainstem CO2-chemoreceptor regions. T. S. MOREIRA*; C. R. SOBRINHO; I. C. WENKER; A. C. TAKAKURA; D. K. MULKEY. *Univ. of Sao Paulo, Univ. of Connecticut, Univ. of Sao Paulo.*

2:00 ZZ11 **656.10** Serotonergic modulation of chemoreceptor neurons in the retrotrapezoid nucleus: A role for HCN channels. V. E. HAWKINS*; J. HAWRYLUK; A. C. TAKAKURA; T. S. MOREIRA; A. V. TZINGOUNIS; D. K. MULKEY. *Univ. of Connecticut, Univ. of Sao Paulo.*

3:00 ZZ12 **656.11** Intermittent hypercapnia enhances ventilatory CO2/pH chemosensitivity, and overcomes serotonergic dysfunction at various developmental periods. B. MOSHER*; B. TAYLOR; M. HARRIS. *Univ. of Alaska Fairbanks, Inst. of Arctic Biol.*

4:00 ZZ13 **656.12** The response of CO2-inhibited neurons to isoflurane: Evidence for a heterogeneous population of medullary raphé GABA neurons. S. L. JOHANSEN*; K. E. ICEMAN; G. B. RICHERSON; M. B. HARRIS. *Univ. of Alaska Fairbanks, Univ. of Iowa.*

1:00 ZZ14 **656.13** Inspiratory intercostal recruitment in rats *in situ*. M. HARRIS; B. MOSHER; L. GUARNIERI; B. E. TAYLOR*; D. FULLER; D. BAEKEY. *Univ. of Alaska Fairbanks, Univ. of Florida, Univ. of Florida.*

2:00 ZZ15 **656.14** Network dependence and independence of CO2-stimulated neurons within the medullary "raphé chemosensory amplifier" (RCA) network. K. E. ICEMAN; M. D. REED; M. B. HARRIS*. *Univ. Alaska Fairbanks.*

POSTER

657. Gastrointestinal, Renal/Urinary, and Reproductive Regulation

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 ZZ16 **657.01** Enhanced NMDA receptor-mediated currents in NTS neurons of T1-Diabetic mice. E. C. BACH*; B. N. SMITH. *Univ. of Kentucky.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 ZZ17 **657.02** Altered cAMP-dependent insulin modulation of synaptic inhibition in DMV neurons of diabetic mice. C. B. BLAKE*; B. N. SMITH. *Univ. of Kentucky.*

3:00 ZZ18 **657.03** Altered phasic and tonic inhibition in the dorsal motor nucleus of the vagus of mice with type 1 diabetes. C. R. BOYCHUK*; K. C. HALMOS; B. N. SMITH. *Univ. of Kentucky.*

4:00 ZZ19 **657.04** Presynaptic nicotine receptor-mediated modulation of inhibitory neurotransmission in the mouse dorsal motor nucleus of the vagus. H. XU*; V. UTESHEV; B. SMITH. *Univ. of Kentucky Col. of Med., Univ. of North Texas Hlth. Sci. Ctr.*

1:00 ZZ20 **657.05** Regulation of neurons in the dorsal motor nucleus of the vagus by SIRT1. Y. JIANG*; A. ZSOMBOK. *Tulane Univ., Tulane Univ.*

2:00 ZZ21 **657.06** Modulation of agonist-induced Ca^{2+} oscillations in mouse pancreatic acinar cells by 2-Aminoethoxydiphenyl borate is independent on IP_3 receptors. Z. HUANG*; H. WANG; J. SHEN; X. FAN; J. WU. *Div. of Neurology, Barrow Neurolog. Institute, St. Joseph'S Hosp. and, Key Lab. of Viral Hepatitis,Hunan Province ,Xiangya Hospital, Central South Univ., Dept. of Physiology, Shantou Univ. Med. Col.*

3:00 ZZ22 **657.07** ● The effect of NPY receptor antagonists in bowel pathology, inflammation, and behavioral responses in a mouse model of inflammatory colitis. H. H. RUIZ*; L. A. CORTES-BURGOS; M. M. DROST; L. E. MACDONALD; S. D. CROLL. *Grad. Ctr., Regeneron Pharmaceuticals.*

4:00 ZZ23 **657.08** Pannexin channel antagonists block ATP release from bladder epithelial cells and inhibit urinary bladder reflexes. J. M. BECKEL*; S. L. DAUGHERTY; C. H. MITCHELL; W. C. DE GROAT. *Univ. of Pennsylvania, Univ. of Pittsburgh.*

1:00 ZZ24 **657.09** Search for sensory pathways between the liver and brain using an inflammatory challenge. F. CÁZAREZ*; N. N. GUERRERO-VARGAS; M. A. GUZMÁN; F. N. BUIJS; R. M. BUIJS. *Inst. De Investigaciones Biomédicas, Univ. Nacional Auntónoma De Méxic.*

2:00 ZZ25 **657.10** TRPV4 blockade reduces urinary bladder dysfunction by increasing bladder capacity and decreasing micturition frequency following RVS in male rats. L. MERRILL*; M. VIZZARD. *Univ. of Vermont.*

3:00 ZZ26 **657.11** Functional role for transforming growth factor-beta (TGF-β) signaling following cyclophosphamide (CYP)-induced cystitis in female rats. E. GONZALEZ*; M. A. VIZZARD. *Univ. of Vermont.*

4:00 AAA1 **657.12** ● Increased voiding frequency is associated with oxidative stress and ATP production in cyclophosphamide (CYP)-induced cystitis in rats. M. A. VIZZARD*; A. PETERSON; S. MALLEY; D. LAMBERT; M. KOSOFSKY; B. GIRARD. *Univ. Vermont Col. Med.*

1:00 AAA2 **657.13** Characterization of reflexive bladder inhibition by **POSTER**ior tibial nerve stimulation in anesthetized rats. M. KOVACEVIC*; P. B. YOO. Univ. of Toronto.

2:00 AAA3 **657.14** Sensory and motor control of micturition in female rats. Y. CRUZ*; C. F. PASTELÍN; H. JIANG; B. BALOG; P. ZASZCZURYNSKI; M. S. DAMASER. *Univ. Autonoma Tlaxcala, Benemérita Univ. Autónoma de Puebla, Cleveland Clin., Advanced Platform Technol. Ctr., Cleveland Clin.*

3:00 AAA4 **657.15** ● Voiding patterns over 24 hours in three strains of female rats. M. KLINGER*; R. SIMPSON; G. M. HERRERA. *Med. Associates, Inc., Catamount Res. & Development, Inc.*

4:00 AAA5 **657.16** ● The effects of bilateral bipolar L6-S1 trunk neurostimulation on continuous cystometric parameters before and after bladder irritation. M. O. FRASER*; D. J. DEGOSKI; P. C. DOLBER. *Duke Univ. Med. Ctr., Durham Veterans Affairs Med. Ctr.*

1:00 AAA6 **657.17** Chronic recording of external urethral sphincter EMG and urine output before and after L1 spinal transection in female rats. B. K. LAPALLO*; X. Y. CHEN; J. R. WOLPAW; J. S. CARP. *Biggs Laboratory, Wadsworth Ctr.*

2:00 AAA7 **657.18** ● Comparing effects of spinal nerve stimulation with administration of mu opioid receptor agonist morphine using the bladder rhythmic contraction model. X. SU*; A. NICKLES; D. E. NELSON. *Medtronic.*

3:00 AAA8 **657.19** Phasic activation of the external urethral sphincter increases voiding efficiency. H. LIU; M. J. MCGEE; C. L. LANGDALE*; W. M. GRILL. *Duke Univ., Duke Univ., Duke Univ.*

4:00 AAA9 **657.20** Modulation of urethral afferent activity through minimally invasive electrical stimulation. Z. C. DANZIGER*; W. M. GRILL. *Duke Univ.*

1:00 AAA10 **657.21** Effects of pharmacological antagonists on bladder inhibition evoked by pudendal afferent stimulation. M. J. MCGEE*; Z. C. DANZIGER; W. M. GRILL. *Duke Univ., Duke Univ., Duke Univ.*

2:00 AAA11 **657.22** Epidural stimulation suppresses external urethral sphincter tonic activity in rats with chronic spinal cord injury. H. H. CHANG*; E. ABUD; L. HAVTON. *UC Irvine, UC Irvine.*

3:00 AAA12 **657.23** Hepatic sympathetic denervation decreases VLDL-TG secretion and prevents progression of dyslipidemia in obese Zucker rats. A. KALSBEEK*; E. FLIERS; E. BRUINSTROOP. *Amsterdam Med. Ctr. (AMC), Dept Endrocrinol. and Metabolism, Netherlands Inst. for Neurosci., Amsterdam Med. Ctr. (AMC).*

4:00 AAA13 **657.24** Reproduction-induced morphometric plasticity of pelvic neurons in female rabbits. L. G. HERNANDEZ ARAGON*; E. CUEVAS; P. PACHECO; M. MARTINEZ-GOMEZ; F. CASTELAN. *Univ. Autonoma De Tlaxcala, Univ. Nacional Autonoma de Mexico.*

1:00 AAA14 **657.25** The broad-spectrum antiemetic efficacy of the L-type calcium antagonist, nifedipine, and involvement of intracellular calcium mobilization in emesis in the least shrew (Cryptotis parva). W. ZHONG; S. CHEBOLU; T. ALKAM; N. A. DARMANI*. *Coll Osteo. Med. Pacific, Western Univ. Hlth. Sci.*

2:00 AAA15 **657.26** Histomorphology and immunohistochemistry of the lower esophageal sphincter (LES) of the least shrew (Cryptotis parva). M. S. AL-TIKRITI*; W. KHAMAS; S. CHEBOLU; N. DARMANI. *Western Univ. of Hlth. Sci., Western Univ. of Hlth. Sci., Western Univ. of Hlth. Sci.*

3:00 AAA16 **657.27** ▲ Active intrinsic neurons are present in the ovary of young adult guinea pig. E. BARRIENTOS ZAVALZA*; M. TORRES-SOTO; D. I. LIMÓN; O. GONZÁLEZ-FLORES; C. ESCAMILLA-WEINMANN; F. LUNA. *Benemérita Univ. Autónoma De Puebla, Benemérita Univ. Autónoma de Puebla, Ctr. de Investigación en Reproducción Animal.*

4:00 AAA17 **657.28** Separate cortical networks for sympathetic and parasympathetic control of the stomach. D. J. LEVINTHAL*; P. L. STRICK. *Univ. of Pittsburgh, Univ. of Pittsburgh Med. Ctr., Univ. of Pittsburgh, Veterans Affairs Med. Ctr.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 AAA18 **657.29** Multiple cortical networks communicate with the adrenal medulla in the monkey. R. P. DUM*; D. J. LEVINTHAL; P. L. STRICK. *Univ. Pittsburgh, Univ. Pittsburgh, VA Med. Ctr.*

POSTER

658. Sleep Systems: Invertebrates, Fish, Birds and Rodents

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 AAA19 **658.01** Characterization of sleep in *Aplysia californica.* A. VORSTER*; H. KRISHNAN; C. CIRELLI; L. C. LYONS. *Univ. of Tübingen, Florida State Univ., Univ. of Wisconsin-Madison.*

2:00 AAA20 **658.02** Crayfish eyes and brain are more metabolically active during sleep than while awake. J. M. FARÍAS; M. AVILA; V. M. LARA-CAMACHO; F. RAMON*. *Univ. Nacional Autónoma de México, Univ. Nacional Autónoma de México, Univ. Nacional Autónoma de México, Univ. Nacional Autónoma de México.*

3:00 AAA21 **658.03** ▲ Population density during larval development alters adult sleep in *Drosophila* melanogaster in an amnesiac-dependent manner. M. W. CHI; L. C. GRIFFITH; C. G. VECSEY*. *Brandeis Univ., Brandeis Univ., Brandeis Univ.*

4:00 AAA22 **658.04** ● Data analysis for a fruit fly automated video sleep deprivation system. D. A. JOHNSON*; M. CHAN; S. GABBERT; H. HARMON; E. L. AKERS; J. E. ZIMMERMAN; A. I. PACK. *Pinnacle Technol, Inc., Univ. of Pennsylvania.*

1:00 AAA23 **658.05** Genetic identification of sleep regulators in zebrafish. D. A. LEE*; C. N. CHIU; J. RIHEL; V. SAPIN; B. NILES; C. SINGH; S. CHAKRAVARTHY; A. F. SCHIER; D. A. PROBER. *Caltech, Univ. Col. London, Harvard Univ.*

2:00 AAA24 **658.06** Circadian and rest/wake dependent modulation of tap response latency in larval zebrafish. O. RANDLETT*; M. HAESEMEYER; D. SCHOPPIK; A. LACOSTE; F. ENGERT; A. SCHIER. *Harvard.*

3:00 AAA25 **658.07** Sleep dynamics and gene expression across the sleep-wake cycle in zebrafish. K. KARLSSON*, Dr.; B. SIGURGEIRSSON; H. THORSTEINSSON; S. SIGMUNDSDOTTIR; R. LIEDER; H. SVEINSDÓTTIR; Ó. SIGURJÓNSSON; B. HALLDÓRSSON. *Reykjavik Univ., Reykjavik Univ., The Blood-bank, Natl. Univ. Hosp.*

4:00 AAA26 **658.08** Ontogeny of arousal in the chicken embryo: Prenatal activation of Hypocretin/Orexin neurons. M. POMPEIANO*; K. E. GODDEN; A. LEE; S. H. LI. *McGill Univ.*

1:00 BBB1 **658.09** Traveling unit and local field potential activity during slow-oscillations in the avian forebrain. G. J. BECKERS*; J. VAN DER MEIJ; J. A. LESKU; N. C. RATTENBORG. *Utrecht Univ., Max Planck Inst. for Ornithology, La Trobe Univ.*

2:00 BBB2 **658.10** Mammalian-like rem sleep ontogeny in barn owls in the wild. M. F. SCRIBA; A. ROULIN; I. HENRY; A. DUCREST; A. L. VYSSOTSKI; N. C. RATTENBORG*. *Univ. of Lausanne, Inst. of Neuroinformatics, ETH, Max Planck Inst. For Ornithology.*

3:00 BBB3 **658.11** An automatic, non-invasive method for sleep restriction in mice. J. FANG*; X. XIE. *Penn State Col. Med., Afasci, Inc.*

4:00 BBB4 **658.12** Semi-automated classification of sleep-wake states using state-space analysis of local field and electrocortigram signals from orbitofrontal cortex. M. J. PAVA*; D. M. LOVINGER. *NIAAA, NIH.*

1:00 BBB5 **658.13** ● Comparison of sleep/wake parameters in male Wistar rats and male C57Bl/6NTac mice subjected to sleep restriction in an automated wheel-based sleep restriction system. E. SHANKS*; A. MCCARTHY; D. M. EDGAR; K. WAFFORD; W. SEIDEL. *Eli Lilly & Co Ltd, Eli Lilly & Co Ltd.*

2:00 BBB6 **658.14** Dynamics of neuronal firing rates during REM and NREM sleep in the rat hippocampus. H. MIYAWAKI*; K. DIBA. *Univ. of Wisconsin-Milwaukee.*

3:00 BBB7 **658.15** Role of the medial prefrontal cortex in cataplexy. Y. OISHI*; R. H. WILLIAMS; L. AGOSTINELLI; E. ARRIGONI; P. FULLER; T. MOCHIZUKI; C. B. SAPER; T. E. SCAMMELL. *Intl. Inst. For Integrative Sleep Medicine, Univ. of Tsukuba, Beth Israel Deaconess Med. Ctr. and Harvard Med. Sch.*

4:00 BBB8 **658.16** Chronic sleep restriction impairs NREM sleep generation in mice. Y. KIM*; B. KIM; E. HWANG; D. KIM; R. W. MCCARLEY; R. E. STRECKER; J. CHOI. *Harvard Med. Sch., VA Boston Healthcare Syst., Korea Inst. of Sci. and Technol.*

1:00 BBB9 **658.17** Sleep deprivation affects performance in a 2-choice visual discrimination task in mice. R. DORE*; N. CUI; V. V. VYAZOVSKIY. *Univ. of Surrey.*

2:00 BBB10 **658.18** Angiotensin II AT1 receptor blockers normalize sleep in an rodent model of insomnia. G. CANO*; R. L. TAYLOR; S. A. GULRAJANI; I. V. NEGRIN; A. F. SVED. *Univ. Pittsburgh.*

3:00 BBB11 **658.19** ● Sleep-wake regulation is altered in mice lacking trace amine-associated receptor 1. M. D. SCHWARTZ*; S. W. BLACK; L. DITTRICH; S. P. FISHER; A. M. THOMAS; A. HARMEIER; J. MOREAU; J. G. WETTSTEIN; M. C. HOENER; S. R. MORAIRTY; T. S. KILDUFF. *SRI Intl., F. Hoffmann-La Roche, Ltd.*

4:00 BBB12 **658.20** Ovariectomy makes female rats more sensitive to the deleterious effects of sleep deprivation on synaptic plasticity: Behavioral, electrophysiological, and molecular evidences. V. HAJALI*; V. SHEIBANI; M. SHABANI; S. E. MAHANI; V. KORZ. *Neurosci. Recearch Center-kerman-Iran, Univ. of Med. Sci., Shahid Bahonar Univ., Inst. for Biol.*

1:00 BBB13 **658.21** Orexin gene transfer in amygdala blocks cataplexy induced by aversive odor in narcoleptic mice. M. LIU*; C. BLANCO-CENTURION; R. KONADHODE; D. PELLURU; P. SHIROMANI. *Ralph H. Johnson VA and Med. Univ. South Carolina.*

2:00 BBB14 **658.22** Maternal dietary restriction alters offspring's sleep homeostasis. N. SHIMIZU*; S. CHIKAHISA; K. KITAOKA; T. SHIUCHI; H. SÉI. *Inst. of Hlth. Biosciences, The Univ. of Tokushima Grad. Sch., Inst. of Hlth. Biosciences, The Univ. of Tokushima Grad. Sch.*

3:00 BBB15 **658.23** *In vivo* pharmacogenetic- and optogenetic-based activation of neurons in the nucleus accumbens promotes sleep. M. LAZARUS*; B. ZHANG; Q. XU; Y. URADE; Z. HUANG; A. DE KERCHOVE D'EXAERDE. *Univ. of Tsukuba, Osaka Biosci. Inst., Fudan Univ. Shanghai Med. Col., Univ. Libre de Bruxelles.*

4:00 BBB16 **658.24** Zolpidem impairs attention/motivation in the rodent psychomotor vigilance task more than almorexant. W. LINCOLN; J. PALMERSTON; T. NEYLAN; T. KILDUFF; S. R. MORAIRTY*. *SRI Int'l, UCSF/SFVAMC.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 BBB17 **658.25** ● Wake neuron injury and impaired hypercapneic arousal in chronic sleep fragmentation. L. A. PANOSSIAN*; Y. LI; J. ZHANG; Y. ZHU; G. ZHAN; Y. CHOU; P. FENIK; S. BHATNAGAR; S. VEASEY. *Univ. of Pennsylvania Sch. of Med., Shanghai Changzheng Hospital, the Affiliated Hosp. to the Second Military Med. Univ., Children's Hosp. of Philadelphia.*

2:00 BBB18 **658.26** Sleep can occur in the hippocampus despite full sleep deprivation in the cortex in freely-behaving rats. B. A. GROSS*; D. DAVIS; K. PRABHU; D. BAUER; J. PRIESTLY; A. SERGEEVA; G. R. POE. *Univ. Michigan.*

3:00 BBB19 **658.27** GABAergic subpopulations of the subparaventricular zone in mice: output and regulation of circadian rhythms. W. D. TODD*, III; C. B. SAPER. *Harvard Med. School/Beth Israel Deaconess Med. Ctr.*

4:00 BBB20 **658.28** Efferent projections of the basal forebrain and thalamic reticular nucleus studied with anterograde transport of channelrhodopsin2-EYFP targeted specifically to parvalbumin neurons. J. T. MCKENNA*; S. THANKACHAN; T. KIM; J. M. MCNALLY; S. WINSTON; R. BASHEER; R. E. STRECKER; R. E. BROWN; R. W. MCCARLEY. *VA Boston Healthcare/Harvard Med. Sch.*

1:00 BBB21 **658.29** Late-night fat intake relates to next day resting-state reward pathway connectivity during sleep deprivation. H. RAO*; Z. FANG; A. M. SPAETH; S. ZHU; A. TAYLOR; N. GOEL; M. BASNER; J. A. DETRE; D. F. DINGES. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

2:00 BBB22 **658.30** Enhanced ACC-putamen connectivity predicts increased fat intake after sleep deprivation. Z. FANG*; A. SPAETH; S. ZHU; A. TAYLOR; N. GOEL; M. BASNER; D. F. DINGES; J. A. DETRE; H. RAO. *Sun Yat-sen Univ., Univ. of Pennsylvania, Univ. of Pennsylvania.*

POSTER

659. Sleep Systems: Rodents

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

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 BBB23 **659.01** Estrogen receptor alpha expression in hypothalamic sleep nuclei and its role in sleep and wakefulness. D. M. CUSMANO*; J. A. MONG. *Univ. of Maryland Sch. of Med., Univ. of Maryland Sch. of Med.*

2:00 BBB24 **659.02** Non-steroidal anti-inflammatory drug reduces sleep rebound after rapid eyes movement sleep deprivation. K. GUZMAN VASQUEZ*; D. MILLAN-ALDACO; M. PALOMERO-RIVERO; R. DRUCKER-COLIN. *UNAM.*

3:00 BBB25 **659.03** Effects of specific immunotoxic lesion of the noradrenergic neurons in the locus coeruleus on the state of wakefulness in mice. K. TAKAHASHI*; K. KONNO; T. SUETSUGU; T. WAKABAYASHI; N. KATO; K. KOBAYASHI; K. ITOI; Y. KOYAMA. *Fukushima Med. Univ., Fukushima Univ., Fukushi Med. Univercity, Tohoku Univ.*

4:00 BBB26 **659.04** Alteration of jaw opening reflex excitability during quiet sleep in rats. K. ADACHI*; S. HINO; N. HORIE; T. SHIMOIYAMA; H. SAKAGAMI; G. J. LAVIGBE; B. J. SESSLE. *Meikai Univ. Sch. of Dent., Nihon Univ. Sch. of Dent., RIKEN, Saitama Med. Univ., Univ. de Montréal, Fac. of Dentistry, Univ. of Toronto.*

1:00 CCC1 **659.05** Exploring NREM sleep rhythms in the cortex of head-restrained mice. L. M. FERNANDEZ*; A. LUTHI. *Univ. of Lausanne.*

2:00 CCC2 **659.06** Coupled flip-flop model for REM sleep regulation in the rat. V. BOOTH*; J. DUNMYRE; G. MASHOUR. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

3:00 CCC3 **659.07** REM sleep deprivation on sexual behavior and sleep recovery in male rats. A. JIMENEZ-ANGUIANO*; D. HUITRON-PALAFOX; E. HERNANDEZ-SONANES; J. VILLEDA-GONZALEZ; F. JIMENEZ-VAZQUEZ; J. REBOLLAR-RAZO; R. TARRAGO-CASTELLANOS; J. VELAZQUEZ-MOCTEZUMA. *Univ. Autónoma Metropolitana-Iztapalapa.*

4:00 CCC4 **659.08** Changes in sleep architecture of rats with experimental Type 2 Diabetes Mellitus. E. LÓPEZ-RUIZ*; A. RIVERA-GARCÍA; I. RAMÍREZ-SALADO; O. PROSPÉRO-GARCÍA. *Inst. Nacional De Psiquiatría Ramon De La Fuente Muñiz, Schoolof Medicine, Natl. Autonomous Univ. of Mexico.*

1:00 CCC5 **659.09** Sleep phenotype characterization of muscleblind-like 1 and 2 knockout mice, peripheral and central models of myotonic dystrophy. N. SAKAI*; M. SATO; K. CHARIZANIS; K. LEE; M. S. SWANSON; S. NISHINO. *Stanford Sleep and Circadian Neurobio. Lab., Univ. of Florida, Chang Gung Mem. Hosp.*

2:00 CCC6 **659.10** Glutamatergic agonists in external cortex of inferior colliculus promote periodic leg movements in the rat. K. HSIEH; J. M. SIEGEL; Y. LAI*. *VAGLAHS Sepulveda, UCLA/VAGLAHS Sepulveda.*

3:00 CCC7 **659.11** Amygdala neurons drive large fluctuation of blood pressure during REM sleep. K. NISHIMURA; N. HARUYAMA; T. AOYAGI; S. TOYOMAKI; Y. KOYAMA*. *Fukushima Univ.*

4:00 CCC8 **659.12** The effects of sleep deprivation on spatial representations in young and aged mice. R. K. YUAN*; I. A. MUZZIO. *Univ. of Pennsylvania.*

1:00 CCC9 **659.13** Fragmented dark-phase circadian activity of mice lacking the neuropeptide relaxin-3: Implications for sleep regulation and psychiatric disease? I. T. HOSKEN*; D. HAWKES; D. E. GANELLA; R. A. D. BATHGATE; C. M. SMITH; A. L. GUNDLACH. *Florey Inst. of Neurosci. and Mental Hlth., Florey Inst. of Neurosci. and Mental Hlth., Florey Inst. of Neurosci. and Mental Hlth.*

2:00 CCC10 **659.14** Hypoglossal (XII) motoneurons are endogenously activated by serotonin (5-HT) during the active period of the circadian cycle in rats. L. KUBIN*; G. L. MANN. *Univ. of Pennsylvania.*

3:00 CCC11 **659.15** Defining the role of neurotransmitter-type specific neuronal populations of the BF in sleep-wake behavior using opto-dialysis: A novel method combining optogenetics and *in vivo* microdialysis. J. C. ZANT*; T. KIM; A. KALINCHUK; C. YANG; R. E. BROWN; J. MCNALLY; S. THANKACHAN; R. R. STRECKER; R. W. MCCARLEY; R. BASHEER. *VA Boston Healthcare Syst. - Harvard Med. Sch.*

4:00 CCC12 **659.16** Optogenetic silencing of hypocretin/orexin neurons using transgenic expression of a light-driven proton pump. R. H. WILLIAMS*; T. CHEN; T. TSUNEMATSU; A. YAMANAKA; T. S. KILDUFF. *SRI Intl., Nagoya Univ.*

1:00 DDD1 **659.17** Genetically targeted activation of cholinergic PPT cells during sleep and wakefulness. D. KROEGER*; L. L. FERRARI; E. ARRIGONI; T. E. SCAMMELL. *BIDMC / Harvard Univ.*

2:00 DDD2 **659.18** ChR2-assisted-circuit-mapping identifies the source of glutamatergic and GABAergic inputs to basal forebrain cholinergic neurons. L. FERRARI*; E. ARRIGONI. *Beth Israel Deaconess Med. Ctr. - Harvard Med. Sch.*

3:00 DDD3 **659.19** Selectively optical drive of cholinergic fibers in the thalamic reticular nucleus promotes sleep. K. NI*; X. HOU; X. LI. *Inst. of Neuroscience,Zhejiang Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 DDD4 **659.20** Optogenetic stimulation of MCH neurons increases sleep. R. KONADHODE*; D. PELLURU; C. BLANCO-CENTURION; A. ZAYACHKIVSKY; M. LIU; T. UHDE; W. GLEN JR; A. VAN DEN POL; P. MULHOLLAND; P. SHIROMANI. *Med. Univ. of South Carolina, Yale Univ. Sch. of Med., Ralph H. Johnson VA Med. Cente.*

1:00 DDD5 **659.21** Selective activation of locus coeruleus noradrenergic neurons facilitates emergence from isoflurane anesthesia. E. M. VAZEY*; B. L. ROTH; G. ASTON-JONES. *MUSC, Univ. of North Carolina.*

2:00 DDD6 **659.22** Optogenetic suppression of thalamic activity rapidly decreases local cortical arousal state. L. D. LEWIS*; J. VOIGTS; F. J. FLORES; M. A. WILSON; M. A. HALASSA; E. N. BROWN. *MIT, MIT, Harvard-MIT.*

3:00 DDD7 **659.23** Glutamate-containing neurons of the **POSTER**ior lateral and supramammillary hypothalamus support wakefulness. N. P. PEDERSEN*; C. B. SAPER; P. M. FULLER. BIDMC/Harvard Med. Sch.

4:00 DDD8 **659.24** Inhibitory DREADD induced inhibition of glutamatergic lateral parabrachial neurons prolong arousal latency to hypercapnia. S. KAUR*; P. M. FULLER; N. L. CHAMBERLIN; C. B. SAPER. *BIDMC & Harvard Med. Sch.*

1:00 DDD9 **659.25** Optogenetic dissection of the MCH system: Implications for sleep-state modulation. S. JEGO; S. D. GLASGOW; C. GUTIERREZ HERRERA; R. BOYCE; S. REED; M. EKSTRAND; J. M. FRIEDMAN; D. BURDAKOV; A. R. ADAMANTIDIS*, Dr. *McGill Univ., Rockefeller Univ., MRC Natl. Inst. for Med. Res. and King's Col. London.*

2:00 DDD10 **659.26** Release of histamine in the ventrolateral preoptic area and tuberomammillary nucleus. M. J. CHEE*; R. H. WILLIAMS; D. KROEGER; L. FERRARI; E. MARATOS-FLIER; T. E. SCAMMELL; E. ARRIGONI. *BIDMC, HMS, BIDMC, HMS.*

3:00 DDD11 **659.27** Optogenetic excitation of parvalbumin neurons in thalamic reticular nucleus (TRN): Effects on cortical arousal and cortical gamma band oscillations (GBO) in freely behaving mice. S. THANKACHAN*; J. M. MCNALLY; J. T. MCKENNA; R. E. STRECKER; R. E. BROWN; R. W. MCCARLEY. *VA Boston Healthcare Syst. & Harvard Med. Sch.*

4:00 DDD12 **659.28** Long-lasting silencing of orexin/hypocretin neurons using archaerhodopsin induces slow-wave sleep in mice. T. TSUNEMATSU*; S. TABUCHI; E. S. BOYDEN; K. F. TANAKA; A. YAMANAKA. *Nagoya Univ., MIT, Keio Univ.*

1:00 EEE1 **659.29** Role of cholinergic and GABAergic pontomesencephalic neurons in theta generation studied by optogenetic manipulation in urethane-anesthetized mice. Y. CISSE*; H. TOOSSI; L. MAINVILLE; A. R. ADAMANTIDIS; B. E. JONES. *McGill University, Montreal Neurolog. Inst., Douglas Mental Hlth. Univ. Institute, McGill Univ.*

2:00 EEE2 **659.30** Basal forebrain modulation of brain states. S. CHUNG*; K. S. KAO; S. LEE; J. DO; Y. DAN. *UC Berkeley.*

POSTER

660. Human Perceptual and Spatial Learning

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 EEE3 **660.01** World-centred goal direction coding in the human retrosplenial cortex. M. J. CHADWICK*; A. JOLLY; D. AMOS; D. HASSABIS; H. J. SPIERS. *UCL.*

2:00 EEE4 **660.02** Spatial discrimination in the morris water task: The influence of view similarity. D. BARTO*; D. HAMILTON. *UNM, Univ. of New Mexico.*

3:00 EEE5 **660.03** Integrating actions into object location memory: A benefit for active versus passive learning. K. TREWARTHA*; S. CASE; J. R. FLANAGAN. *Queen's Univ.*

4:00 EEE6 **660.04** Electrophysiological correlates of intra-categorical discrimination training. R. DE MEO; N. BOURQUIN; J. KNEBEL; M. M. MURRAY; S. CLARKE*. *Service De Neuropsychologie Et De Neuroréhabilitation, CHUV-UNIL.*

1:00 EEE7 **660.05** The effect of interference on visuospatial temporal order memory during the premanifest and manifest stages of Huntington's disease. D. R. NICOLL*; E. PIROGOVSKY; A. E. COLLAZO; J. GOLDSTEIN; S. M. TIERNEY; A. EMAMI; J. COREY-BLOOM; P. E. GILBERT. *San Diego State Univ., UCSD, UCSD, Univ. of California,San Diego, San Diego State University-University of California, San Diego Joint Doctoral Program.*

2:00 EEE8 **660.06** • ▲ Spatial and semantic memory for kinesthetic learning in large-scale visual displays. D. SMITH; H. CHUNG; E. RAGAN; J. SELF; C. NORTH; A. D. CATE*. *Virginia Polytechnic Inst. and State Univ., Virginia Polytechnic Inst. and State Univ.*

3:00 EEE9 **660.07** Entropy of Movement Outcome in Space-Time. T. HSIEH*; S. LAI; K. M. NEWELL. *The Pennsylvania State Univ., Natl. Taipei Univ. of Nursing and Hlth. Sci.*

4:00 EEE10 **660.08** Updating a spatial expectation versus attentional reorienting. Dissociable effects in EEG data. U. SCHÜFFELGEN*; I. C. GOULD; J. X. O'REILLY; R. B. MARS; M. F. RUSHWORTH. *Oxford Univ., Oxford Univ.*

1:00 EEE11 **660.09** The effects of 8 weeks of aerobic exercise with affirmations on learning, memory, cognition and mood in individuals with traumatic brain injury. J. C. BASSO*; A. SHANG; Y. LEE; S. A. SMALL; A. M. BRICKMAN; T. A. ASHMAN; W. A. SUZUKI. *New York Univ., New York Univ., Columbia Univ.*

2:00 EEE12 **660.10** Training of visual categories through real-time fMRI neurofeedback. V. E. JACKSON-HANEN*; A. TOMPARY; M. T. DEBETTENCOURT; N. B. TURK-BROWNE. *Princeton Univ., New York Univ.*

3:00 EEE13 **660.11** The effects of reward contingency on perceptual category learning. L. E. VUCOVICH*; F. G. ASHBY. *UC, Santa Barbara.*

4:00 EEE14 **660.12** Learning to perform state estimation with populations of model neurons. B. DICHTER; J. G. MAKIN*; P. N. SABES. *Univ. of California, San Francisco/Berkeley, Univ. of California, San Francisco, Univ. of California, San Francisco.*

1:00 EEE15 **660.13** Stronger task irrelevant perceptual learning with older than younger people. L. CHANG*; K. SHIBATA; Y. YOTSUMOTO; J. ANDERSEN; Y. SASAKI; T. WATANABE. *Brown Univ., Boston Univ., The Univ. of Tokyo, Univ. of California, Riverside.*

2:00 EEE16 **660.14** Visual categorisation is Bayesian and not Discriminative in humans. F. MEHRABAN POUR BEHBAHANI*; A. A. FAISAL. *Imperial Col. London, Imperial Col. London.*

3:00 EEE17 **660.15** Neurons with place-field like properties describe exploratory behavior. V. L. FLANAGIN*; C. ROPPELT; S. GLASAUER. *Univ. of Munich, Grad. Sch. for Systemic Neurosciences, Clin. Neurosci.*

4:00 EEE18 **660.16** ▲ Human electrocortical dynamics of spatial navigation in a predefined square spiral track. J. TREES*; J. SNIDER; E. HALGREN; H. POIZNER. *Inst. For Neural Computation, Univ. of California San Diego, UCSD.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 EEE19 **660.17** Response preference in a same-different visual discrimination task with asymetrical ratios of same/different stimulus pairs. M. A. TORO; G. MUÑOZ; P. MORENO; J. ORTEGA; M. AYLWIN*. *Univ. de Chile, ICBM, Facultad De Medicina, Univ. De Chile, Univ. de Talca.*

2:00 EEE20 **660.18** Effects of short-term auditory exposure on intrinsic brain activity in infants. M. S. KOYAMA*; L. HELFERSTAY; J. PARASCANDO; J. BYRNE; S. ORTIZ-MANTILLA; C. ROESLER; A. A. BENASICH. *Rutgeres Univ.*

3:00 EEE21 **660.19** ● REM sleep facilitates recovery of disrupted perceptual learning. E. A. MCDEVITT*; K. M. ROWE; K. A. DUGGAN; S. C. MEDNICK. *Sleep and Cognition Lab.*

4:00 EEE22 **660.20** The effects of acute aerobic exercise on memory and cognition in healthy, young adults. A. SHANG*; M. ELMAN; R. KARMOUTA; S. DASILVA; V. DODSON; J. TANG; S. KEE; S. A. SMALL; A. M. BRICKMAN; W. A. SUZUKI. *New York Univ., Columbia Univ.*

1:00 EEE23 **660.21** Visual rhythm perception improves through multisensory (but not unisensory) training. B. BARAKAT*; A. R. SEITZ; L. SHAMS. *UCLA, Univ. of California, Riverside.*

2:00 EEE24 **660.22** ● Effects of working memory-training on apparent diffusion coefficient of dopaminergic system. H. TAKEUCHI*; Y. TAKI; R. NOUCHI; H. HASHIZUME; A. SEKIGUCHI; Y. KOTOZAKI; S. NAKAGAWA; C. M. MIYAUCHI; Y. SASSA; R. KAWASHIMA. *Tohoku Univ, IDAC.*

3:00 EEE25 **660.23** Modulating cognitive neurochemistry and performance: transcranial random noise stimulation (TRNS) decreases glutamate levels during cognitive training in the parietal cortex. B. KRAUSE*; T. POPESCU; O. TWOSE; T. PAGE; N. FILIPPINI; J. NEAR; C. STAGG; R. COHEN KADOSH. *Oxford Univ., Univ. of Oxford, Univ. of Oxford, McGill Univ., Univ. of Oxford.*

4:00 EEE26 **660.24** BDNF val66met polymorphism is associated with differential learning in a statistical learning paradigm. B. C. BAYS*; C. M. BULA; C. C. LE DANTEC; A. R. SEITZ. *Univ. of California, Riverside, Univ. of California, Riverside.*

1:00 FFF1 **660.25** The neural consequences of learning to recognize 3D objects. Y. E. PARK*; F. TONG. *Vanderbilt Univ.*

2:00 FFF2 **660.26** Meta-analytic and intrinsic functional connectivity mapping of lateral temporal cortex. A. U. TURKEN*; T. J. HERRON; N. F. DRONKERS. *Dept of Veterans Affairs NCHCS, UC Davis Med. Sch.*

3:00 FFF3 **660.27** Retroactive interference during memory consolidation of spatial context in patients with mild cognitive impairment. O. ONUR*; H. MUCKE; G. R. FINK; J. KUKOLJA. *Univ. Hosp. Cologne, Res. Ctr. Juelich.*

POSTER

661. Human Medial Temporal Lobe: Neurophysiology

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 FFF4 **661.01** A neuroimaging investigation of age and pattern separation. C. DOXEY*; B. KIRWAN. *Brigham Young Univ., Brigham Young Univ.*

2:00 FFF5 **661.02** An event-related potential investigation of pattern completion and pattern separation processes. M. ANDERSON*; B. KIRWAN. *Brigham Young Univ.*

3:00 FFF6 **661.03** An fMRI investigation on the role of material-specific cueing in pre-stimulus effects for associative memory encoding. R. J. ADDANTE*; M. D. RUGG. *Univ. of Texas At Dallas, Univ. of Texas at Dallas.*

4:00 FFF7 **661.04** The 'recollection network' tracks the quality of retrieved source information. S. S. YU*; M. D. RUGG. *Univ. of Texas, Dallas.*

1:00 FFF8 **661.05** The neural correlates of environmental and object novelty during exploratory learning. R. KAPLAN*; A. J. HORNER; P. BANDETTINI; C. F. DOELLER; N. BURGESS. *Univ. Col. London, Natl. Inst. of Mental Hlth., Radboud Univ. Nijmegen.*

2:00 FFF9 **661.06** Integrated across-episode representations in the hippocampus. B. MILIVOJEVIC*; A. VICENTE GRABOVETSKY; C. F. DOELLER. *Donders Inst. for Brain, Cognition and Behaviour; Radboud Univ. Nijmegen.*

3:00 FFF10 **661.07** Representational and network properties of recent and remote memory recall in the hippocampus. A. R. BACKUS*; S. E. BOSCH; M. EKMAN; A. VICENTE GRABOVETSKY; C. F. DOELLER. *Donders Inst. for Brain, Cognition and Behaviour; Radboud Univ. Nijmegen.*

4:00 FFF11 **661.08** Decoding cell-type specific spatial representations in human entorhinal layers. T. NAVARRO SCHROEDER*; A. VICENTE-GRABOVETSKY; T. VAN MOURIK; P. J. KOOPMANS; D. G. NORRIS; C. F. DOELLER. *Donders Inst. For Brain, Cognition and Behaviour; Radboud Univ. Nijmegen.*

1:00 FFF12 **661.09** Information-specific mnemonic patterns in early visual cortex and hippocampus during and after associative memory retrieval. S. E. BOSCH*; J. F. M. JEHEE; G. FERNANDEZ; C. F. DOELLER. *Donders Inst. For Brain, Cognition and Behaviour; Radboud Univ. Nijmegen.*

2:00 FFF13 **661.10** Representation of spatial scale in the human medial temporal lobe. A. VICENTE GRABOVETSKY*; T. NAVARRO SCHROEDER; B. M. STEEMERS; C. BARRY; C. F. DOELLER. *Donders Inst. for Brain, Cognition and Behaviour; Radboud Univ. Nijmegen, Univ. Col. London.*

3:00 FFF14 **661.11** Human aging alters neural computations and representations during spatial navigation. N. W. SCHUCK*; C. F. DOELLER; T. A. POLK; U. LINDENBERGER; S. LI. *Max Planck Inst. For Human Develop., Humboldt-Universität Berlin, Radboud Univ., Univ. of Michigan, TU Dresden.*

4:00 FFF15 **661.12** ● ▲ Hippocampal attractor dynamics in human spatial memory. B. M. STEEMERS*; A. VICENTE GRABOVETSKY; T. NAVARRO SCHROEDER; N. BURGESS; C. BARRY; C. F. DOELLER. *Donders Inst. For Brain, Cognition and Behaviour; Radboud Univ. Nijmegen, UCL Inst. of Cognitive Neurosci., UCL Inst. of Neurol., UCL Inst. of Behavioural Neuroscience, Univ. Col.*

1:00 FFF16 **661.13** Evidence of a mechanism for the maintenance of recollected content in working memory. K. L. VILBERG*; M. D. RUGG. *Univ. of Texas, Dallas, Univ. of Texas, Dallas.*

2:00 FFF17 **661.14** The role of MTL subregions in content-dependent memory reactivation and reward. H. SCHULTZ*; T. SOMMER; J. PETERS. *Univ. Med. Ctr. Hamburg-Eppendorf, Univ. of California, Berkeley.*

3:00 FFF18 **661.15** Brain circuitry underlying the representation of context. R. D. BURWELL*; T. K. JACOBSON; D. L. POETA; I. TOMÁS PEREIRA; F. YANG; B. W. KENT. *Brown Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 FFF19 **661.16** Memory strengthening by overnight sleep reactivation depends on the structural integrity of the hippocampus in humans. L. FUENTEMILLA*; J. MIRÓ; P. RIPOLLÈS; A. VILÀ-BALLÓ; M. JUNCADELLA; S. CASTAÑER; N. SALORD; C. MONASTERIO; M. FALIP; A. RODRÍGUEZ-FORNELLS. *Inst. of Biomedicine Res. of Bellvitge (IDIBELL), Univ. of Barcelona, Univ. Hosp. of Bellvitge, Inst. of Biomedicine Res. of Bellvitge, Univ. Hosp. of Bellvitge, Univ. Hosp. of Bellvitge, Univ. Hosp. of Bellvitge.*

1:00 FFF20 **661.17** Memory for nonspatial context in parahippocampal cortex. R. A. DIANA*; R. W. STRONG; A. M. A. FEHR. *Virginia Polytechnic & State Univ.*

2:00 FFF21 **661.18** Reinstatement of contextual information does not depend upon retrieval goal. R. ELWARD*; M. D. RUGG. *Ctr. For Vital Longevity.*

3:00 FFF22 **661.19** Associative processing in scene selective cortex. E. M. AMINOFF*; M. J. TARR. *Carnegie Mellon, Carnegie Mellon Univ.*

4:00 FFF23 **661.20** Visuospatial bootstrapping: Integrating verbal working memory with visuospatial long-term memory depends on the integrity of the medial temporal lobes. E. RACE*; M. CADDEN; M. VERFAELLIE. *VA Boston Healthcare Syst. and Boston Univ. Sch. of Med.*

1:00 FFF24 **661.21** Decoding representations of visual scenes in hippocampal subfields at 7 Tesla. D. BERRON*; H. SCHÜTZE; A. MAAß; D. KUMARAN; E. DÜZEL. *Inst. of Cognitive Neurol. and Dementia Research, Otto-von-Guericke Univ., Inst. of Cognitive Neuroscience, Univ. Col. London, German Ctr. for Neurodegenerative Dis.*

2:00 FFF25 **661.22** Using multi-voxel pattern analysis to differentiate between remembering and imagining within the hippocampus: An fMRI study. M. NASH*; S. R. ASHBY; C. B. KIRWAN. *Brigham Young Univ.*

3:00 FFF26 **661.23** Memory for the future and past: Brain activity associated with successful prospective and retrospective memory. J. B. KNIGHT*; F. BEIER; M. RITCHEY; A. P. YONELINAS; C. RANGANATH. *Univ. of California,Davis.*

4:00 GGG1 **661.24** Hippocampal CA3DG activity during encoding is associated with successful pattern separation. N. A. SUTHANA*; N. YAP; C. RODRIGUEZ; W. WONG; B. KNOWLTON. *UCLA, UCLA.*

1:00 GGG2 **661.25** How intrinsic motivation modulates learning of neutral information via the dopaminergic circuit. M. GRUBER*; B. GELMAN; M. DOSS; C. RANGANATH. *UC Davis.*

2:00 GGG3 **661.26** The hippocampus coordinates neuronal networks supporting construction and elaboration of autobiographical memories. C. MCCORMICK*; T. A. VALIANTE; M. MCANDREWS. *Univ. of Toronto, Krembil Neurosci. Center, Toronto Western Res. Inst., Univ. of Toronto, Univ. of Toronto, Univ. of Toronto.*

3:00 GGG4 **661.27** High field structural MRI reveals specific episodic memory correlates with volumes of hippocampal subfields. S. G. TRAVIS*; Y. HUANG; E. FUJIWARA; A. RADOMSKI; F. OLSEN; R. CARTER; P. SERES; N. MALYKHIN. *Univ. of Alberta, Univ. of Alberta, Univ. of Alberta.*

4:00 GGG5 **661.28** Transient increases in hippocampal volume after exercise training reflect increases in myelination. A. G. THOMAS*; A. DENNIS; N. B. RAWLINGS; L. MATTHEWS; C. J. STAGG; M. MORRIS; S. H. KOLIND; M. JENKINSON; T. E. NICHOLS; H. DAWES; P. A. BANDETTINI; H. JOHANSEN-BERG. *NIMH, Univ. of Oxford, Oxford Brookes Univ., King's Col. London, Univ. of Warick.*

1:00 GGG6 **661.29** Delay-dependent changes in reactivation of context information during item recognition. M. RITCHEY*; M. E. MONTCHAL; A. P. YONELINAS; C. RANGANATH. *UC Davis.*

2:00 GGG7 **661.30** Memory for items in context: Multivoxel pattern similarity approaches. L. A. LIBBY*; C. RANGANATH. *UC Davis, UC Davis.*

POSTER

662. Attentional Networks I

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GGG8 **662.01** Granger causality is a viable technique for analyzing fMRI data. X. WEN*; G. RANGARAJAN; M. DING. *Dept. of Biomed. Engineering, Univ. of Florida, Indian Inst. of Sci.*

2:00 GGG9 **662.02** Differential effects of bottom-up saliency and top-down relevance on early attentional processing. J. FELLRATH*; A. L. MANUEL; A. SCHNIDER; R. PTAK. *Div. of Neurorehabilitation, Dept. of Clin. Neurosciences, Fac. of Psychology and Educational Sci.*

3:00 GGG10 **662.03** Emotional modulation of attention networks depends on task engagement. V. MÄKI-MARTTUNEN; N. PICKARD; K. O. OGAWA; A. SOLBAKK; R. T. KNIGHT; K. M. HARTIKAINEN*. *Behavioral Neurol. Res. Unit, Tampere Univ. Hosp., Univ. of California, Berkeley, St. Mary's Col. of California, Oslo Univ. Hosp.*

4:00 GGG11 **662.04** Neural correlates of tracking an object through feature space. T. LIU*. *Michigan State Univ.*

1:00 GGG12 **662.05** The behavioral analysis of a Go/NoGo task in school-aged children study in the Buddhist integrated education program. N. PHIANCHANA*; K. SAMPOON; S. CHAITHIRAYANON; N. KOTCHABHAKDI; N. CHUTABHAKDIKUL; V. SIRIPORNPANICH. *Inst. of Mol. Biosciences, Mahidol Univ., Fac. of Medicine, Srinakharinwirot Univ.*

2:00 GGG13 **662.06** Near and far transfer effects of attentional filtering training. M. K. SCHWEFEL*; M. SCHMICKER; N. G. MÜLLER. *DZNE, Otto-von-Guericke-Universität.*

3:00 GGG14 **662.07** Human target detection in dynamic scenes. E. CADDIGAN*; M. P. ECKSTEIN. *UC Santa Barbara.*

4:00 GGG15 **662.08** Interactions of noise and spatial frequency effects on the attentional bias. J. CHEN*; M. NIEMEIER. *Univ. of Toronto, Univ. of Toronto, York Univ.*

1:00 GGG16 **662.09** Magnitude and temporal dynamics of gaze-induced joint attention when viewing group gaze behavior. X. YUAN*; H. GENG. *Peking Univ.*

2:00 GGG17 **662.10** Plasticity induction with high-frequency rTMS modulates brain physiology during cognitive control in humans. J. I. SCHWEIGER*; A. SCHÄFER; P. POST; M. ZANGL; M. RIETSCHEL; J. UTIKAL; A. MEYER-LINDENBERG; H. TOST. *Central Inst. of Mental Health, Med. Fac. Mannheim / Heidelberg Univ., Skin Cancer Unit, German Cancer Res. Ctr. (DKFZ), Heidelberg, Germany and Dept. of Dermatology, Venereology and Allergology, Univ. Med. Ctr. Mannheim, Ruprecht-Karl Univ. of Heidelberg.*

3:00 GGG18 **662.11** ● Classification of task-unrelated thoughts based on single-trial fMRI data. M. MITTNER*; W. BOEKEL; G. DE HOLLANDER; A. M. TUCKER; B. FORSTMANN. *Univ. Van Amsterdam.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 GGG19 **662.12** Unrest at rest: Connectivity with posterior cingulate cortex distinguishes multiple task states. A. UTEVSKY*; D. V. SMITH; S. A. HUETTEL. Duke Univ., Duke Univ., Rutgers Univ.

1:00 GGG20 **662.13** Separating auditory and visual attention networks using eye tracking and fMRI. R. M. BRAGA*; R. FU; R. J. S. WISE; R. LEECH. *Imperial Col. London.*

2:00 GGG21 **662.14** Context dependent resting networks: Interim task effect on the eyes closed at rest state. E. HURLIMAN*; J. T. LEE; J. V. PARDO. *VAMC, Univ. of Minnesota, Univ. of Minnesota.*

3:00 GGG22 **662.15** Hard and harder: Functional brain networks are recruited in a graded fashion depending on task type and difficulty. E. S. FINN; M. D. ROSENBERG; X. SHEN; R. T. CONSTABLE*; M. M. CHUN. *Yale Univ., Yale Univ., Yale Univ.*

4:00 GGG23 **662.16** Evolution of Attention Systems. G. H. PATEL*; D. YANG; L. H. SNYDER; M. CORBETTA; V. P. FERRERA. *Columbia Univ., New York State Psychiatric Inst., Barnard Col., Washington Univ. Sch. of Med., Washington Univ. Sch. of Med., Columbia Univ.*

1:00 GGG24 **662.17** Influences of right parietal cortex in the visual processing of contralateral visual stimuli in a sustained attentional context. J. LEITAO*; A. THIELSCHER; U. NOPPENEY. *Univ. of Birmingham, Max Planck Inst. for biological Cybernetics, Tech. Univ. of Denmark, Copenhagen Univ. Hosp. Hvidovre.*

2:00 GGG25 **662.18** Temporal dynamics of the spontaneous activity in the human brain revealed anti-correlated brain states. L. ZENG*; D. HU; H. LIU. *Natl. Univ. of Def. Technol., Massachusetts Gen. Hosp.*

3:00 GGG26 **662.19** Temporal and spatial short-term memory tasks dynamically recruit sensory-biased frontal lobe attention networks. S. W. MICHALKA*; L. KONG; M. L. ROSEN; K. J. DEVANEY; B. G. SHINN-CUNNINGHAM; D. C. SOMERS. *Boston Univ., Boston Univ., Boston Univ., Boston Univ.*

4:00 GGG27 **662.20** Dissociable effects of surprise and model-update in parietal and anterior cingulate cortex. J. O'REILLY*; U. SCHÜFFELGEN; S. CUELL; R. B. MARS; T. E. J. BEHRENS; M. F. S. RUSHWORTH. *Oxford Univ.*

1:00 GGG28 **662.21** An fMRI study of auditory attention during listening to competing speakers. S. KAMOURIEH*; R. LEECH; R. M. BRAGA; R. WISE. *Imperial Col. London.*

2:00 GGG29 **662.22** 20 Hz rTMS of the human attention network selectively modulates goal-driven, but not stimulus-driven visual search. I. DOMBROWE*; C. C. HILGETAG. *Universitaetsklinikum Hamburg-Eppendorf.*

3:00 GGG30 **662.23** The role of depth of encoding in attentional capture. E. SASIN*; A. JOHNSON. *Univ. of Groningen.*

4:00 GGG31 **662.24** Dissociating the contributions of attentional control subunits during object-based spatial selection. M. SCOLARI*; S. KASTNER. *Princeton Univ.*

1:00 GGG32 **662.25** Measuring the components of attention in the young healthy adult population. G. ESKES; S. A. JONES*; B. BUTLER; R. KLEIN. *Dalhousie Univ., The Sch. of Hlth. and Human Performance, Dalhousie Univ., Dalhousie Univ., Dalhousie Univ.*

POSTER

663. Inhibitory Control I

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 GGG33 **663.01** Modeling response time and accuracy during a stop-signal task: Stimulus-response choices. B. B. ZANDBELT*; J. D. SCHALL; T. J. PALMERI; G. D. LOGAN. *Vanderbilt Univ.*

2:00 GGG34 **663.02** Selective inhibition in young adults, older adults, and Parkinson's disease. P. G. BISSETT*; G. D. LOGAN; S. A. WYLIE. *Vanderbilt Univ.*

3:00 GGG35 **663.03** Elite Adventure Racers show improved efficiency in right middle frontal regions during stop-signal task, an fMRI investigation. N. THOM*; A. N. SIMMONS; D. C. JOHNSON; L. HAASE; E. POTTERAT; M. PAULUS. *Optibrain Consortium, Leidos, Univ. of California-San Diego, Naval Special Warfare.*

4:00 GGG36 **663.04** Knowing when to stop: Neural correlates of the objective and subjective aspects of proactive inhibition. R. KALDEWAIJ*; S. DU PLESSIS; T. E. GLADWIN; M. VINK. *Rudolf Magnus Inst. of Neuroscience, Univ. Med. Ctr. Utrecht, Univ. of Stellenbosch, Univ. of Amsterdam.*

1:00 GGG37 **663.05** The efficiency of proactive control in the stop-signal task depends on both gender differences and COMT genetic variation. E. BRUNAMONTI; F. DONNO; S. CANTERINI; M. T. FIORENZA; S. FERRAINA*. *Sapienza Univ. Rome, Sapienza Univ. Rome.*

2:00 GGG38 **663.06** Modeling response time and accuracy during a stop-signal task: Perceptual discrimination choices. P. MIDDLEBROOKS*; B. B. ZANDBELT; J. D. SCHALL; T. J. PALMERI; G. D. LOGAN. *Vanderbilt Univ.*

3:00 GGG39 **663.07** ▲ Dynamic neural correlates of post-error slowing: A preliminary event-related potential study. A. CHANG*; C. CHEN; H. LI; C. LI. *Dept. of Psychology, Natl. Taiwan Univ., Dept. of Psychiatry, Yale Univ., Dept. of Neurobiology, Yale Univ., Interdepartmental Neurosci. Program, Yale Univ.*

4:00 GGG40 **663.08** Transcranial magnetic stimulation dissociates prefrontal and parietal contributions to task preparation. P. S. MUHLE-KARBE*; M. ANDRES; M. BRASS. *Ghent Univ.*

1:00 GGG41 **663.09** Noninvasive stimulation of medial-prefrontal cortex controls learning and performance monitoring. R. M. REINHART*; G. F. WOODMAN. *Vanderbilt Univ.*

2:00 GGG42 **663.10** The role of front-parietal network in awareness of motor intention studied by repetitive Transcranial Magnetic Stimulation. A. ASHIZUKA*; T. MIMA; Y. UEKI; T. ASO; M. MATSUHASHI; H. FUKUYAMA. *Human Brain Res. Center,Kyoto Univ. Grad. Sch. of Med., Dept. of Neurology, Nagoya City Univ.*

3:00 GGG43 **663.11** Differential control of task switching at the local and sequence level in the frontal cortex. T. M. DESROCHERS*; D. BADRE. *Brown Univ., Brown Univ.*

4:00 GGG44 **663.12** Independent component analysis of neural networks involved in proactive and reactive response inhibition. J. V. BELLE*; B. ZANDBELT; M. VINK; S. DURSTON. *UMC Utrecht, Vanderbilt Univ.*

1:00 GGG45 **663.13** Motivation and anticipation in an impulse control task in human subthalamic nucleus. J. M. PEARSON*; P. T. HICKEY; S. P. LAD; M. L. PLATT; D. A. TURNER. *Duke Univ. Med. Ctr., Duke Univ., Duke Univ. Med. Ctr., Duke Univ. Med. Ctr., Duke Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 GGG46 **663.14** Speed pressure in conflict situations impedes inhibitory action control in Parkinson's disease. N.; W. VAN DEN WILDENBERG; T. BASHORE; S. WYLIE. *Vanderbilt Univ., Univ. of Amsterdam, Univ. of Northern Colorado.*

3:00 GGG47 **663.15** ● Neuroeconomic and clinical correlates of impulsivity in frontotemporal dementia. W. CHIONG*; K. A. WOOD; A. S. KAYSER; M. D'ESPOSITO; H. J. ROSEN; B. L. MILLER; J. H. KRAMER. *Univ. of California, San Francisco, Univ. of California, Berkeley.*

4:00 GGG48 **663.16** The importance of cortico-subcortical interaction for successful response inhibition in traumatic brain injury. I. LEUNISSEN*; J. COXON; S. SWINNEN. *KU Leuven, The Univ. of Auckland.*

1:00 HHH1 **663.17** ● Assessing inhibition difficulties in anxiety with transcranial magnetic stimulation. J. M. KUCKERTZ*; J. W. BOFFA; N. AMIR. *San Diego State University/University of California, San Diego, San Diego State Univ.*

2:00 HHH2 **663.18** Efficiency of reaction and inhibition are associated with unique white matter network fingerprints in a large (N=950) sample representative of the Dutch population. A. R. VAN DER LEIJ*; R. RIDDERINKHOF; L. WALDORP; H. SCHOLTE. *Univ. of Amsterdam, Univ. of Amsterdam, Univ. of Amsterdam, Univ. of Amsterdam.*

3:00 HHH3 **663.19** The neurohemodynamic substrates of response inhibition in medication naïve OCD: An fMRI study using go/no-go task. D. A. JOSE*, JR; S. AGARWAL; J. NARAYANASWAMY; S. KALMADY; U. BARUAH; V. SHIVAKUMAR; G. VENKATASUBRAMANIAN; Y. JANARDHAN REDDY. *Natl. Inst. Of Mental Hlth. And Neurosci.*

4:00 HHH4 **663.20** Diminished sensitivity to punishments explains perseveration in elderly in the Wisconsin Card Sorting Test. J. P. GLAESCHER*; S. BRASSEN. *Univ. Med. Ctr. Hamburg-Eppendorf.*

1:00 HHH5 **663.21** Tourette's syndrome impairs inhibition of voluntarily initiated manual and vocal responses. K. KANOFF; W. VAN DEN WILDENBERG; D. CLAASSEN; S. WYLIE*. *Vanderbilt Univ., Univ. of Amsterdam.*

2:00 HHH6 **663.22** Working memory load selectively influences the STOP process in a stop signal task. B. VIPARINA; L. ADAMES; L. CRUZ; S. N. DUGAN; L. BOUCHER*. *Nova Southeastern Univ.*

POSTER

664. Decision Making: Risk and Uncertainty

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HHH7 **664.01** Short-term reward or long-term profit - Impaired decision-making of pathological computer gamers in the iowa gambling task. J. K. KRÜGER*. *Ruhr-Universität Bochum, Charité, Dept. of Psychiatry and Psychotherapy.*

2:00 HHH8 **664.02** Variance and skew of punishments alters decision-making in a modified Iowa gambling task. C. J. SEELEY*; J. G. A. CASHABACK; C. T. SMITH; R. J. BENINGER. *Queen's Univ., McMaster Univ., Trent Univ.*

3:00 HHH9 **664.03** Identifying procedural factors that optimize performance on the Iowa Gambling Task. W. H. OVERMAN*, Jr.; M. DEAL; S. HINES; A. LOPRESTI; A. PIERCE; C. MORGAN. *Univ. North Carolina Wilmington.*

4:00 HHH10 **664.04** Neurobiological differences elicited when gamblers and non-gamblers are offered advice in financial decision-making. V. SUEN*; M. R. G. BROWN; R. K. MORCK; P. H. SILVERSTONE. *Univ. of Alberta.*

1:00 HHH11 **664.05** ERP correlates of risky decision-making in anhedonia and major depression. P. HALL*; R. A. SEGRAVE; L. D. SMILLIE; P. B. FITZGERALD. *Monash Univ., Univ. of Melbourne.*

2:00 HHH12 **664.06** ▲ Electrophysiological responses to gains and losses predict overall risk-taking behavior. E. A. WHITE; A. VANCE; B. ANDERSON; D. EARGLE; B. KIRWAN*. *Brigham Young Univ., Brigham Young Univ., Univ. of Pittsburgh, Brigham Young Univ.*

3:00 HHH13 **664.07** Discriminating formal representations of risk in anterior cingulate cortex and anterior insula activity. J. W. BROWN*; R. FUKUNAGA. *Indiana Univ., Indiana Univ.*

4:00 HHH14 **664.08** Prospective physical effort and decision-making under risk. N. MALECEK*; T. SCHONBERG; R. A. POLDRACK. *UT Austin, UT Austin.*

1:00 HHH15 **664.09** Optimizing decision-making by delaying decision onset. T. TEICHERT; J. GRINBAND; V. P. FERRERA*. *Columbia Univ., Columbia Univ., Columbia Univ.*

2:00 HHH16 **664.10** Predicting deliberate decisions in a competitive environment from neural signals during the previous trial - an intracranial human study. U. MAOZ*; L. MUDRIK; S. YE; D. ELIASHIV; J. CHUNG; I. ROSS; A. MAMELAK; C. KOCH. *Caltech, UCLA, Cedars Sinai Med. Ctr., Huntington Mem. Hosp., Allen Inst. for Brain Sci.*

3:00 HHH17 **664.11** The neural correlates of distributional information in decision under uncertainty. C. TING*; S. WU. *Natl. Yang-Ming Univ., Natl. Yang-Ming University, Taiwan.*

4:00 HHH18 **664.12** The effects of interactive television on brand processing speeds and the moderating effect of need for cognition. J. M. GOLD*; J. CIORCIARI; C. R. CRITCHLEY. *Swinburne Univ. of Technol.*

1:00 HHH19 **664.13** Dissociable contribution of prefrontal and striatal dopaminergic genes to learning in economic games. I. SAEZ*; E. SET; L. ZHU; S. ZHONG; D. HOUSER; R. EBSTEIN; S. CHEW; M. HSU. *Univ. of California Berkeley, Univ. of Illinois, Virginia Tech. Carilion Inst., Natl. Univ. of Singapore, George Mason Univ., Univ. of California.*

2:00 HHH20 **664.14** Separable neural representations of belief and reward updating. K. KOBAYASHI*; M. HSU. *Univ. of California, Berkeley.*

3:00 HHH21 **664.15** Brain activity during appraisal of product. K. UEDA*. *Design Innovation Lab., Grad. Sch. of Engin.*

4:00 HHH22 **664.16** Neuroeconomics of asset-price bubbles: A potential role for herding. J. L. HARACZ*. *San Mateo County Hlth. Dept.*

POSTER

665. Social Systems

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HHH23 **665.01** Dissociable neural mechanisms underlying honesty and altruism. A. JENKINS*; L. ZHU; E. SET; D. SCABINI; R. KNIGHT; P. CHIU; B. KING-CASAS; M. HSU. *Univ. of California, Berkeley, Virginia Tech. Carilion Res. Inst., Univ. of Illinois at Urbana-Champaign, Virginia Tech.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 HHH24 **665.02** Neural activity associated with individual differences in moral decision making reflects protected values. A. SEID-FATEMI*; F. HEISE; C. TANNER; R. GIBSON; A. F. WAGNER; P. N. TOBLER. *Univ. of Zurich, Univ. of Hildesheim, Univ. of Zurich, Univ. of Zurich.*

3:00 HHH25 **665.03** How does the knowledge of consequences on others' outcome affect one's own value-based decision? H. FUKUDA*; S. SUZUKI; K. UENO; J. GARDNER; N. ICHINOHE; M. HARUNO; K. CHENG; H. NAKAHARA. *RIKEN, BSI, Caltech, Hokkaido Univ., Natl. Inst. of Neurosci., Natl. Inst. of Information and Communication Technol.*

4:00 HHH26 **665.04** The encoding of social conflicts in the N400-like component. Y. HUANG*; R. YU. *South China Normal Univ.*

1:00 HHH27 **665.05** Human facial preferences are changed at the mercy of online neurofeedback. K. SHIBATA*; Y. SASAKI; M. KAWATO; T. WATANABE. *Brown Univ., Advanced Res. Inst. Intl.*

2:00 HHH28 **665.06** Pharmacological manipulation of prefrontal dopamine levels and social preferences. A. S. KAYSER*; I. SAEZ; D. WALLACE; M. HSU. *Univ. California, San Francisco, Univ. of California, Univ. of California.*

3:00 HHH29 **665.07** The heart's memory: Gratitude is correlated with heart rate and individual differences in baseline vagal tone. G. R. FOX*; X. YANG; D. HERMAN; M. METKE; A. DAMASIO. *Brain and Creativity Inst., USC.*

4:00 HHH30 **665.08** Empathy and justice sensitivity predict prefrontal recruitment during moral decision-making. K. J. YODER*; J. DECETY. *Univ. of Chicago.*

1:00 HHH31 **665.09** Prosocial commitment increases generous behavior. S. Q. PARK*; T. KAHNT; A. SEID-FATEMI; E. FEHR; P. N. TOBLER. *Univ. of Zurich.*

2:00 HHH32 **665.10** Effects of emotional expression and religion on trauma adaptation and well-being. M. KAO*; Y. CHEN. *Insititute of Cognitive Neurosci.*

3:00 HHH33 **665.11** ▲ Are corporations people too?: The neural correlates of moral judgments about companies and humans. M. PLITT*; R. SAVJANI; D. EAGLEMAN. *Baylor Col. of Med.*

4:00 HHH34 **665.12** Shame and exculpation: Integrating modeling and neuroimaging approaches to social emotions. D. WALSH; T. IMAI; T. MUROOKA; Y. UENO; M. WATANABE; M. HSU*. *Univ. of California, Berkeley, Caltech, Univ. of California, Berkeley, Univ. of Tokyo, Univ. of California, Berkeley.*

1:00 HHH35 **665.13** Gender effects on the neurostructural bases of empathy. S. F. CAPPA*; A. DODICH; C. CRESPI; G. PANTALEO; N. CANESSA. *Vita-Salute Univ. and San Raffaele Scientific Inst.*

2:00 HHH36 **665.14** Transcranial magnetic stimulation on right temporoparietal junction affects moral judgments. T. K. CHEN*; Y. CHOU. *NDHU.*

3:00 HHH37 **665.15** ● The neural basis of expectations as reference point in social decision-making. S. OKAMOTO-BARTH*; M. STROBEL; A. HEINECKE; H. BREMAN; R. GOEBEL; A. RIEDL. *Maastricht Univ., Maastricht Univ.*

4:00 HHH38 **665.16** Effects of an implicit religious prime on behavioral and physiological responses to moral dilemmas. I. A. HARRINGTON*; D. J. M. PACE; C. M. CARTER; S. ADAM; T. RAUPP. *Augustana Col., Augustana Col.*

1:00 HHH39 **665.17** ● μ-Opioid system activation predicts BOLD responses to social rejection and acceptance: A combined PET and fMRI study. D. T. HSU*; B. J. SANFORD; K. K. MYERS; K. E. HAZLETT; T. M. LOVE; B. J. MICKEY; R. A. KOEPPE; J. K. CROCKER; S. A. LANGENECKER; J. ZUBIETA. *Univ. of Michigan, Wayne State Univ., Marquette Univ., Univ. of Michigan, The Ohio State Univ., Univ. of Illinois.*

2:00 HHH40 **665.18** Physiological stress reactivity and empathy following social exclusion. E. C. BASS; S. STEDNITZ; K. C. SIMONSON; E. B. GAHTAN*. *Humboldt State Univ.*

3:00 HHH41 **665.19** How delusions might influence, or be influenced by, our willingness to play social roles: An Event- Related Potential study. A. FERNANDEZ CRUZ*; O. MOHAMED ALI; L. BOURGEOIS; I. WALPOLA; J. DEBRUILLE. *McGill, Douglas Mental Hlth. Univ. Inst., McGill, Douglas Mental Hlth. Univ. Inst., McGill, Douglas Mental Hlth. Univ. Inst., McGill, Douglas Mental Hlth. Univ. Inst.*

POSTER

666. Human Cognition: Cognitive Aging II

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 HHH42 **666.01** A lifespan study of connectivity differences in four large-scale brain networks. M. Y. CHAN*; I. M. MCDONOUGH; D. C. PARK. *Univ. of Texas At Dallas, Univ. of Texas at Dallas.*

2:00 HHH43 **666.02** ● ▲ Do we predict as we age? An event related potential study of sentence processing in Spanish-speaking older adults. V. ESTRADA*; A. CHAIRE; N. WICHA. *Univ. of Texas At San Antonio.*

3:00 HHH44 **666.03** White matter integrity and dopamine tone (but not amyloid burden) are linked in aging. A. RIECKMANN*; T. HEDDEN; A. YOUNGER; R. A. SPERLING; R. L. BUCKNER. *Athinoula A. Martinos Ctr. For Biomed. Imaging, MGH, Dept. of Radiation Sciences, Diagnos. Radiology Umea Univ., Dept. of Radiology, Massachusetts Gen. Hosp., Dept. of Neurology, Massachusetts Gen. Hospital, Harvard Med. Sch., Ctr. for Alzheimer Res. and Treatment, Dept. of Neurology, Brigham and Women's Hospital, Harvard Med. Sch., Dept. of Psychiatry, Massachusetts Gen. Hospital, Harvard Med. Sch., Dept. of Psychology and Ctr. for Brain Science, Harvard Univ., Howard Hughes Med. Inst. at Harvard Univ.*

4:00 HHH45 **666.04** A fmri investigation of executive functioning in Mild Cognitive Impairment. R. MELROSE*; D. YI; S. WILKINS; L. E. NATTA; A. M. JIMENEZ; P. BHARATH; K. M. HARRELL; D. L. SULTZER. *VA Greater Los Angeles Healthcare Syst., UCLA.*

1:00 HHH46 **666.05** ▲ Associations of psychological distress and cognitive performance in healthy older adults. L. ZUROFF*; H. MCCOUBREY; N. LOUNEVA; D. APPLEBY; S. NEGASH; S. E. ARNOLD. *Univ. of Pennsylvania, Univ. of Pennsylvania, Perelman Sch. of Med.*

2:00 III1 **666.06** Differential effects of cardiovascular and coordination training on brain volume. C. NIEMANN*; B. GODDE; U. M. STAUDINGER; C. VOELCKER-REHAGE. *Jacobs Univ. Bremen gGmbH, Jacobs Univ. Bremen Ggmbh.*

3:00 III2 **666.07** Inter-individual differences in leisure activities, cognition, and changes in brain structure in old age. Y. KÖHNCKE*; E. JONSSON LAUKKA; Y. BREHMER; L. FRATIGLIONI; L. BÄCKMAN; M. LÖVDÉN. *Aging Res. Ctr., Ctr. for Lifespan Psychology, Max Planck Inst. for Human Develop.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

4:00 III3 **666.08** MCI Prevalence to incident dementia as predicted by baseline neuropsychiatric symptoms:The mayo clinic study of aging. J. I. ACOSTA*; A. PINK; R. O. ROBERTS; T. J. H. CHRISTIANSON; V. PANKRATZ; O. SOCHOR; R. C. PETERSEN; Y. E. GEDA. *Mayo Clin., Paracelsus Med. Univ., Mayo Clin., Mayo Clin., Intl. Clin. Res. Ctr., Mayo Clin.*

1:00 III4 **666.09** Does active participation in leisure time activities promote cognitive and neuroanatomical health? S. HIRSIGER*; S. MÉRILLAT; J. HÄNGGI; M. MARTIN; L. JÄNCKE. *Intl. Normal Aging and Plasticity Imaging Ctr., Intl. Normal Aging and Plasticity Imaging Ctr. (INAPIC), Univ. of Zurich, Dept. of Psychology, Univ. of Zurich, URPP Dynamics of Healthy Aging.*

2:00 III5 **666.10** The effects of BMI on executive functioning in young-older adults versus old-older adults. A. STICKEL*; K. KAWA; L. RYAN. *Univ. of Arizona.*

3:00 III6 **666.11** ▲ Evaluating the impact of a family history of Alzheimer's diseasee on hippocampal volume and contextual memory performance at midlife. A. SWIERKOT; K. KONISHI; J. PRUESSNER; M. FAJARDO; M. N. RAJAH*. *McGill Univ., McGill Univ., Douglas Mental Hlth. Univ. Institute, Res. Ctr.*

4:00 III7 **666.12** ▲ The differential role of visual context for young and older adults during object item memory and source memory. K. A. COOKE; L. RYAN*. *Univ. of Arizona.*

1:00 III8 **666.13** Age and white matter injury are associated with hyperactivation during cue-guided spatial search. S. N. LOCKHART*; A. E. ROACH; S. J. LUCK; J. GENG; L. BECKETT; O. CARMICHAEL; C. DECARLI. *Univ. of California Davis.*

2:00 III9 **666.14** ● Rapid, open human cognition research on a large scale: The human cognition project. F. FARZIN*; D. A. STERNBERG; N. NG; A. KALUSZKA; J. L. HARDY; M. SCANLON. *Lumos Labs, Inc.*

3:00 III10 **666.15** ● Reduced levels of conscious error awareness in healthy older adults: An fMRI study. J. SIM*; F. L. BROWN; R. HESTER. *The Univ. of Melbourne, The Univ. of Queensland.*

4:00 III11 **666.16** Relationship between BOLD variability, dopaminergic transmission and cognitive aging. M. GUITART MASIP*; A. SALAMI; D. GARRETT; A. RIEKMANN; L. NYBERG; U. LINDENBERGER; L. BÄCKMAN. *Aging Res. Ctr., Karolinska Inst., Karolinska Inst., Max Plank Inst. for Human Develop., Harvard Univ., Umeå Univ.*

1:00 III12 **666.17** Cognitive complaints after menopause correlate with functional connectivity of the frontal cortex and medial temporal lobe. L. ZURKOVSKY*; J. A. DUMAS; N. D. WOODWARD; P. A. NEWHOUSE. *Vanderbilt Univ. Med. Ctr., Univ. of Vermont, Vanderbilt Univ. Med. Ctr.*

2:00 III13 **666.18** Altered salience network connectivity in older adults with cognitive complaints and early and late amnestic mild cognitive impairment. J. A. CONTRERAS; Y. WANG; S. L. RISACHER; B. C. MCDONALD; J. D. WEST; S. GAO; M. R. FARLOW; A. J. SAYKIN*. *Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Med., Indiana Univ. Sch. of Indianapolis.*

3:00 III14 **666.19** The effects of KIBRA, APOE, and hypertension status on measures of memory functioning in older adults. K. KAWA*; A. STICKEL; K. WALTHER; E. L. GLISKY; N. HACKETT; M. J. HUENTELMAN; L. RYAN. *Univ. of Arizona, Ludwig Maximilians Univ., The Translational Genomics Res. Inst.*

4:00 III15 **666.20** Diabetes mellitus and white matter integrity are associated with inhibitory control performance on Stroop, Flanker, and Go-NoGo paradigms in cognitively normal older adults. A. ROACH*; S. LOCKHART; O. CARMICHAEL; C. DECARLI. *Univ. of California Davis.*

1:00 III16 **666.21** Short term exercise training increases brain blood flow in anterior cingulate in sedentary seniors. S. ASLAN*; S. B. CHAPMAN; N. DIDEHBANI; L. DEFINA; H. LU. *Advance MRI, LLC, Ctr. for BrainHealth, The Cooper Inst., Univ. of Texas Southwestern Med. Ctr.*

2:00 III17 **666.22** Differential benefits for physical vs. cognitive training on brain health in seniors. S. B. CHAPMAN*; S. ASLAN; N. DIDEHBANI; M. KEEBLER; J. HART, Jr.; H. LU. *Ctr. For BrainHealth, Advance MRI, LLC, Ctr. for BrainHealth, Univ. of Texas Southwestern Med. Ctr.*

3:00 III18 **666.23** Lifespan changes in the neural network architecture underlying criterion shifting during recognition memory. T. SANTANDER*; B. LOPEZ; M. SCHUBERT; C. BENNETT; M. B. MILLER. *Univ. of Virginia, Univ. of California, Santa Barbara.*

4:00 III19 **666.24** Differential age-related changes in regional brain volumes in a span of less than two years. N. PERSSON*; A. R. BENDER; P. YUAN; Y. YANG; C. L. DAHLE; A. M. DAUGHERTY; N. RAZ. *Dept. of Psychology, Stockholm Univ., Wayne state Univ., Karolinska institutet, Wayne State Univ.*

1:00 III20 **666.25** Resting-state functional connectivity reveals age-related reorganization of functional networks. A. NIELSEN*; J. J. TREMEL; M. E. WHEELER. *Learning Res. and Develop. Center, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh, Univ. of Pittsburgh.*

2:00 III21 **666.26** Dark energy in brain aging: Evidence for network-specific effects of age on Resting state functional connectivity. A. SALAMI*; G. KALPOUZOS; L. BÄCKMAN. *Aging Res. Ctr. (ARC), Umea center for functional brain imaging (UFBI), Karolinska Inst., Karolinska Inst.*

3:00 III22 **666.27** Age related differences in hippocampal response to increasing difficulty in an associative memory retrieval task: An fMRI investigation of face-name pairs. E. BAENA*; J. WOHLTMANN; L. RYAN. *Univ. Arizona.*

4:00 III23 **666.28** Dispositional mindfulness is associated with reduced implicit learning. C. M. STILLMAN*; A. M. COFFIN; J. H. HOWARD, Jr.; D. V. HOWARD. *Georgetown Univ., The Catholic Univ. of America, Georgetown Univ.*

1:00 III24 **666.29** The low frequency electrical stimulation on ankle increases p300 amplitude in middle aged women. Y. RYU*; K. CHOI; M. YOO; S. LEE; S. CHO; O. KWON; S. YEON; J. LEE; S. CHOI. *Korea Inst. Oriental Med.*

2:00 III25 **666.30** Differential modulation of attentional networks in the elderly by physical activity. E. C. CHANG*; J. Y. S. WANG. *Natl. Central Univ., Natl. Yang-Ming Univ.*

POSTER

667. Social Cognition: Neural Substrates II

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 III26 **667.01** The effect of oxcytocin on orbitofrontal and amygdalar neurons of awake rats. L. A. DAVIES; A. FONTANINI; G. LA CAMERA*. *Stony Brook Univ.*

2:00 III27 **667.02** Olfaction, sniffing, and social cognition: New evidence for shared neural substrates and processes. T. R. KOSCIK*; A. K. ANDERSON. *Univ. of Toronto.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 III28 **667.03** When I heard myself: Pianists' brain responses to own musical performance compared to other pianists' performances. W. J. TROST*; S. FRÜHHOLZ; M. RAPPAZ; K. ELIARD; L. FADIGA; D. GRANDJEAN. *Univ. of Geneva, Geneva Univ. of Music, Univ. of Ferrara.*

4:00 III29 **667.04** Neural correlates of the influence of ethnicity and gaze direction on emotion perception. K. KRÄMER*; G. BENTE; I. BARISIC; B. KUZMANOVIC; K. VOGELEY. *Univ. Hosp. Cologne, Res. Ctr. Juelich, Univ. of Cologne, Res. Ctr. Juelich, Univ. Hosp. Cologne.*

1:00 III30 **667.05** Cerebral and cerebellar involvement in joint attention. T. KOIKE*; H. C. TANABE; S. OKAZAKI; N. SADATO. *Natl. Inst. For Physiological Sci., Nagoya Univ., Natl. Inst. for Physiological Sci.*

2:00 III31 **667.06** Discovering latent cognitive processes involved in internal mentation tasks via a large-scale meta-analysis. B. YEO*; F. M. KRIENEN; C. L. ASPLUND; S. N. YAAKUB; M. W. L. CHEE. *Duke-NUS Grad. Med. Sch., Harvard Univ., Yale-NUS Col.*

3:00 III32 **667.07** Comparative media studies and cognition: EEG analyses of reading in different media. G. ARANHA*; A. SHOLL-FRANCO. *Organizacao Ciencias e Cognicao, Univ. Federal do Rio de Janeiro, Univ. Federal do Rio de Janeiro.*

4:00 III33 **667.08** Resting state brain activity predicts individuals' conformity. A. OSSADTCHI; A. SHESTAKOVA; I. ZUBAREV; V. KLUCHAREV*. *St. Petersburg State Univ., Moscow State Univ. of Psychology and Educ., Univ. of Basel.*

1:00 III34 **667.09** ▲ The amygdala is not required for shifting implicit social biases. N. Y. WEN*; R. ADOLPHS; D. A. STANLEY. *Caltech.*

2:00 III35 **667.10** Sex differences in the functional organization of face processing. N. V. GARCIA*; D. ELBICH; A. UNGER; S. SCHERF. *The Pennsylvania State Univ.*

3:00 III36 **667.11** Structural and functional brain networks relating to social network size in humans. M. P. NOONAN*; R. B. MARS; J. SALLET; R. I. DUNBAR; M. F. S. RUSHWORTH; L. K. FELLOWS. *Univ. of Oxford, Univ. of Oxford, McGill Univ.*

4:00 III37 **667.12** A dorsal stream for the kinematic representation of observed goal-directed hand actions. S. GOLDMAN*; B. MARTY; M. BOURGUIGNON; V. WENS; M. OP DE BEECK; P. VAN BOGAERT; V. JOUSMÄKI; R. HARI; X. DE TIEGE. *Clin. Univ. de Bruxelles, Univ. libre de Bruxelles, Aalto Univ.*

1:00 III38 **667.13** Neural mechanisms underlying effects of preference difference on observational learning. S. COLLETTE*; J. O'DOHERTY. *Caltech.*

2:00 III39 **667.14** Brain-derived neurotrophic factor (BDNF) Val66Met polymorphism influences motor resonance in the human mirror system. V. TASCHEREAU-DUMOUCHEL*; S. HÉTU; P. MICHON; É. VACHON-PRESSEAU; L. DE BEAUMONT; S. FECTEAU; J. POIRIER; Y. CHAGNON; P. L. JACKSON. *Univ. Laval, Ctr. interdisciplinaire de recherche en réadaptation et intégration sociale, Ctr. de recherche de l'institut universitaire en santé mentale de Québec, Human Neuroimaging laboratory, Virginia Tech. Carilion Res. Inst., Univ. de Montréal, Univ. de Québec à Trois-Rivières, Hop. Sacré-Coeur, Univ. Laval, McGill university, Douglas Mental Hlth. Univ. Inst., Univ. Laval, Univ. Laval.*

3:00 III40 **667.15** Dynamic modulation of rolandic mu rhythm by the kinematics of executed and observed movements. X. DE TIÈGE*; B. MARTY; V. JOUSMÄKI; V. WENS; M. OP DE BEECK; P. VAN BOGAERT; S. GOLDMAN; R. HARI; M. BOURGUIGNON. *Unité De Magnetoencephalographie, ULB-Hôpital Erasme, Univ. Libre de Bruxellles (ULB), Sch. of Science, Aalto Univ.*

4:00 III41 **667.16** Neural responses to narratives framed with sacred values. S. I. GIMBEL*; J. T. KAPLAN; M. H. IMMORDINO-YANG; C. M. TIPPER; A. S. GORDON; M. DEHGHANI; K. SAGAE; H. DAMASIO; A. DAMASIO. *USC, USC.*

1:00 III42 **667.17** Neural evidence of social information processing: Discrimination and perception of discrimination in economic games. S. B. BALL*; N. LAUHARATANAHIRUN; L. ZHU; P. CHIU; B. KING-CASAS. *Virginia Tech. Dept. of Econ., Virginia Tech. Carilion Res. Inst., Virginia Tech. Dept. of Psychology.*

2:00 III43 **667.18** Dyadic interaction induced cerebral dual systems. R. LEE*. *Princeton Univ.*

3:00 III44 **667.19** "Are you messing with me?" Probing the neural dynamics of intention attribution to a virtual partner using the human dynamic clamp. G. DUMAS*; E. TOGNOLI; G. C. DE GUZMAN; J. A. S. KELSO. *Florida Atlantic Univ., Univ. of Ulster.*

4:00 III45 **667.20** Bridging neural, behavioral and social coordination dynamics using the human dynamic clamp. J. A. S. KELSO*; G. DUMAS; E. TOGNOLI; G. C. DE GUZMAN. *Ctr. for Complex Systems & Brain Sci., Univ. of Ulster.*

1:00 III46 **667.21** Social coordination dynamics through the looking glass: Toward explaining single subject, single trial neurobehavioral variability. E. TOGNOLI*; G. DUMAS; J. A. S. KELSO. *Ctr. for Complex Systems and Brain Sci., Univ. of Ulster.*

2:00 JJJ1-DP9 **667.22** Why do we laugh at misfortune? An electrophysiological exploration of comic situation processing. M. MANFREDI*; R. ADORNI; A. ZANI; A. PROVERBIO. *Univ. of Milano-Bicocca, Univ. of Milano-Bicocca, 2Institute of Mol. Bioimaging and Physiology, Italian Natl. Res. Council, Univ. of Milan-Bicocca.*

3:00 JJJ2 **667.23** Executive & coordination deficits contribute to language processing in Parkinson disease. N. SPOTORNO*; S. GOLOB; G. PORCARI; R. CLARK; M. GROSSMAN; C. MCMILLAN. *FTD Center, HUP, Dept. of Linguistics Univ. of Pennsylvania.*

POSTER

668. Decision Making: Cortical Mechanisms

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ3 **668.01** The role of medial and lateral orbitofrontal cortex in response inhibition. D. BRYDEN*; M. ROESCH. *Univ. of Maryland Col. Park.*

2:00 JJJ4 **668.02** Optogenetic stimulation of visual inputs to **POSTER**ior parietal cortex biases choice behavior of rats on a multisensory decision task. J. P. SHEPPARD*; M. B. RYAN; A. K. CHURCHLAND. Cold Spring Harbor Lab.

3:00 JJJ5 **668.03** Activity in the anterior and **POSTER**ior cingulate cortex during an adaptive learning task. Y. LI*; M. R. NASSAR; J. I. GOLD. Univ. of Pennsylvania.

4:00 JJJ6 **668.04** Dynamics of decision and action in rat **POSTER**ior parietal cortex. M. T. KAUFMAN*; D. RAPOSO; A. K. CHURCHLAND. Cold Spring Harbor Lab., Cold Spring Harbor Lab., Champalimaud.

1:00 JJJ7 **668.05** The role of the orbitofrontal cortex of the rat in delay-based decision-making. A. NAGANO; K. AOYAMA; T. UEKITA*. *Doshisha Univ., Kyoto Tachibana Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 JJJ8 **668.06** Redefining effort: Anterior cingulate cortex does not mediate all effort decisions equally. V. HOLEC*; D. R. EUSTON. *Univ. of Lethbridge, Canadian Ctr. for Behavioural Neurosci.*

3:00 JJJ9 **668.07** A comparison of categorization signals and decision related signals in Area LIP. S. SHUSHRUTH*; M. MAZUREK; M. N. SHADLEN. *Columbia Univ., Howard Hughes Med. Inst., Metropolitan State Univ. of Denver, Columbia Univ.*

4:00 JJJ10 **668.08** Neuronal correlates of social decisions during iterative prisoner's dilemma games. K. HAROUSH*; Z. WILLIAMS. *Harvard Med. Sch.*

1:00 JJJ11 **668.09** Premotor cortical activity reflects value and effort biases during reach decisions. A. PASTOR-BERNIER*; M. LABONTÉ; P. CISEK. *Univ. Montreal.*

2:00 JJJ12 **668.10** A common urgency/vigor signal governs speed-accuracy trade-offs in both decision-making and movement execution. D. THURA*; J. TRUNG; P. CISEK. *Univ. Montreal.*

3:00 JJJ13 **668.11** Neural signals in anterior insular cortex related to risky choice and its outcomes. H. ISHII*; S. TAKAHASHI; Y. KAIZU; S. OHARA; P. N. TOBLER; K. TSUTSUI; T. IIJIMA. *Div. of Sys. Neurosci., Tohoku Univ., Div. of Sys. Neurosci., Tohoku Univ., Lab. for Social and Neural Systems Research, Dept. of Economics, Univ. of Zurich.*

4:00 JJJ14 **668.12** Social information foraging in the orbitofrontal cortex. G. K. ADAMS*; J. PEARSON; M. L. PLATT. *Duke Univ.*

1:00 JJJ15 **668.13** Responses of neurons in cortical areas LIP and MIP during a reaction time perceptual decision-making task communicated with an eye or a hand movement. L. WOLOSZYN*; M. N. SHADLEN. *Columbia Univ., Kavli Inst. for Brain Sci., Howard Hughes Med. Inst.*

2:00 JJJ16 **668.14** Value representation of delayed and probabilistic rewards in the supplementary eye field of monkeys. J. HWANG*; V. STUPHORN. *Johns Hopkins Univ., Johns Hopkins Univ.*

POSTER

669. Cognition, Learning, and Memory: Neural Mechanisms

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ17 **669.01** Causal analysis of the interactions between dorsolateral prefrontal cortex and frontal eye fields in macaques. J. H. BONG*; R. HERIKSTAD; A. PARTHASARATHY; C. LIBEDINSKY; M. J. MEANEY; S. YEN. *Natl. Univ. of Singapore, SINAPSE, Singapore Inst. of Clin. Sci., McGill Univ., Singapore Inst. for Clin. Sci.*

2:00 JJJ18 **669.02** Across-areal signal flow between area 36 and TE of macaques performing the pair-association task. M. TAKEDA*; K. W. KOYANO; T. HIRABAYASHI; T. ISHII; T. WATANABE; Y. MIYASHITA. *Univ. of Tokyo Sch. of Med.*

3:00 JJJ19 **669.03** Neural mechanisms of context representation and reinforcement expectation in the amygdala and prefrontal cortex. A. SAEZ; M. RIGOTTI; S. OSTOJIC; S. FUSI; C. D. SALZMAN*. *Columbia Univ., Columbia Univ. Col. of Physicians and Surgeons, New York Univ., Ecole Normale Superieure, Columbia Univ., New York State Psychiatric Inst.*

4:00 JJJ20 **669.04** Brain regions involved in remembering and forgetting: an immunohistochemical study. M. A. YOUSSEF*; N. FRAIZE; S. ARTHAUD; P. LIBOUREL; R. PARMENTIER; P. SALIN; G. MALLERET. *UMR CNRS 5292.*

1:00 JJJ21 **669.05** DNA methylation in hippocampus, medial prefrontal cortex and perirhinal cortex in visual recognition memory. H. SCOTT*; J. B. UNEY; E. C. WARBURTON. *Univ. of Bristol, Univ. of Bristol.*

2:00 JJJ22 **669.06** Hippocampal to medial prefrontal cortex connections are essential for the 'when' but not the 'where' of episodic-like memory. G. R. BARKER*; L. WONG; J. B. UNEY; E. C. WARBURTON. *Univ. Bristol, Univ. of Bristol.*

4:00 JJJ23 **669.07** Deep cerebellar nuclei play an important role in two-tone discrimination on delay eyeblink conditioning in C57BL/6 mice. T. SAKAMOTO*; S. ENDO. *Kyoto Tachibana Univ., Tokyo Metropolitan Inst. of Gerontology.*

3:00 JJJ24 **669.08** Primate mediodorsal thalamus and tracking value in an uncertain environment. A. S. MITCHELL*; S. CHAKRABORTY; M. E. WALTON. *Oxford Univ.*

2:00 JJJ26 **669.10** Local field potential oscillations in rat **POSTER**ior parietal cortex during performance on a visuospatial attention task. F. YANG*; T. K. JACOBSON; R. D. BURWELL. Brown Univ.

1:00 JJJ25 **669.09** Cellular localization concerned with pheromonal memory in the accessory olfactory bulb in mice. K. MOGI*; S. TSUCHIYA; K. MURATA; M. NAGASAWA; N. MATSUO; T. KIKUSUI. *Azabu Univ., Kyoto Univ.*

4:00 JJJ27 **669.11** Auditory discrimination learning in monkeys with neurotoxic lesions of the ventrocaudal neostriatum. E. RIGGALL; R. M. REOLI; M. MISHKIN; R. C. SAUNDERS*. *NIMH, NIMH.*

3:00 JJJ28 **669.12** Local field potentials in the postrhinal cortex. B. KENT*; T. K. JACOBSON; R. D. BURWELL. *Brown Univ., Brown Univ.*

1:00 JJJ29 **669.13** Hippocampal inactivation and spatial-temporal memory in the monkey. L. MALKOVA*; S. SARDA; J. MCCLANE; K. GALE; P. A. FORCELLI. *Georgetown Univ. Med. Ctr., Georgetown Univ. Med. Ctr.*

2:00 JJJ30 **669.14** The relationship between locus coeruleus neuronal activity and pupil diameter. S. JOSHI*; R. M. KALWANI; J. I. GOLD. *Univ. of Pennsylvania, Temple Univ.*

3:00 JJJ31 **669.15** Slow learning of new contextual memory is compromised by blurring the context in dentate gyrus-lesioned rats, but not in controls. J. AHN*; I. LEE. *Seoul Natl. Univ.*

4:00 JJJ32 **669.16** Enhanced cognitive flexibility in reversal learning induced by removal of the extracellular matrix in auditory cortex. M. HAPPEL*; H. NIEKISCH; L. L. CASTIBLANO RIVIERA; F. W. OHL; M. DELIANO; R. FRISCHKNECHT. *Leibniz Inst. For Neurobio., Otto-v.-Guericke University, Inst. for Biol., Ctr. for Behavioral Brain Sci. (CBBS).*

1:00 JJJ33 **669.17** Task-dependent modulation of primate thalamic mediodorsal activities during working memory performances. Y. WATANABE*; S. FUNAHASHI. *Natl. Inst. Advanced Industrial Sci., Kyoto Univ., Kyoto Univ.*

2:00 JJJ34 **669.18** Dynamic learning of a spatio-temporal sequence as a model of memory systems interaction. B. M. BABAYAN*; A. WATILLIAUX; C. TOBIN; B. GIRARD; L. RONDI-REIG. *Neurobio. of Apdaptive Processes Laboratory, UMR 7102 UPMC-CNRS, Inst. for Intelligent Systems and Robotics, UMR 7222 UPMC-CNRS.*

3:00 JJJ35-DP8 **669.19** Neural basis of social learning in rhesus macaques. J. GARIEPY*; E. DU; D. L. XIE; M. L. PLATT. *Duke Univ., Duke Univ., Duke Univ.*

4:00 JJJ36 **669.20** Parietal and hippocampal activity in the rhesus monkey during a virtual navigation task. S. C. WIRTH*; A. PLANTE; J. DUHAMEL. *Ctr. De Neurosci. Cognitive, Ctr. de Neurosci. Cognitive.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 JJJ37 **669.21** Information theoretic analysis of the interaction between frontal eye fields and dorso-lateral prefrontal cortex in macaques. A. PARTHASARATHY*; J. H. BONG; R. HERIKSTAD; C. LIBEDINSKY; M. J. MEANEY; S. YEN. *Natl. Univ. of Singapore, Singapore Inst. for Clin. Sci., McGill Univ.*

POSTER

670. Animal Learning and Memory: Cortical and Hippocampal Circuits IV

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ38 **670.01** Arc expression in the prefrontal cortex following contextual alterations and shifts in cognitive strategy. S. L. GRELLA*; B. J. SCHMIDT; S. M. GOMES; D. F. MARRONE; E. SATVAT; E. J. MARKUS. *Wilfrid Laurier Univ., Univ. of Connecticut, McKnight Brain Inst.*

2:00 JJJ39 **670.02** Allocation of multiple episodic memories in hippocampus. D. J. CAI*; J. L. SHOBE; T. SHUMAN; A. C. FRANK; J. BIANE; K. BAUMGAERTEL; K. K. COWANSAGE; M. R. MAYFORD; A. J. SILVA. *UCLA, UCLA, UCSD, The Scripps Res. Inst., UCLA, UCLA, UCLA, UCLA.*

3:00 JJJ40 **670.03** Overtraining makes object recognition memory resistant to the retrograde amnesic effects of hippocampal and perirhinal cortex damage. J. E. TAYLOR*; A. MULLIN; J. CALABRESE; H. LEHMANN. *Trent Univ.*

4:00 JJJ41 **670.04** Aging, working memory, and proactive interference in a radial water-maze: A longitudinal study. R. R. RENNER*; N. E. PAUL; S. LEE; A. M. MARCZAK; E. J. MARKUS. *Univ. of Connecticut.*

1:00 JJJ42 **670.05** Differential spike timing and phase dynamics of reticular thalamic and prefrontal cortical neuronal populations during sleep spindles. R. GARDNER*; S. W. HUGHES; M. W. JONES. *Univ. of Bristol, Eli Lilly & Co.*

2:00 JJJ43 **670.06** Investigating the contribution of small conductance Ca^{2+} activated K+ channels to the enhancement of Pavlovian fear learning and memory through administration of apamin. S. A. SANGUINETTI*; A. RABINOWITZ; R. W. STACKMAN, Jr. *Florida Atlantic Univ.*

3:00 JJJ44 **670.07** Scanning behavior in novel environments promotes de novo formation of hippocampal place fields in rats. J. MONACO*; G. RAO; E. D. ROTH; J. J. KNIERIM. *Johns Hopkins Univ., Univ. of Delaware, Johns Hopkins Univ.*

4:00 JJJ45 **670.08** Hippocampal activity related to acqusition and performance in rats. M. KETCHUM*; T. G. WEYAND; P. J. WINSAUER. *Louisiana State Univ. Hlth. Sci. Ctr. New Orleans, Louisiana State Univ. Hlth. Sci. Ctr. New Orleans.*

1:00 JJJ46 **670.09** Sex differences in diet-induced cognitive impairment. S. BLYTHE*; N. GUNAWANSA. *Washington & Lee Univ.*

2:00 JJJ47 **670.10** Navigation via integration of path travelled and spatial map representation of a familiar environment. F. T. SPARKS*; K. C. O'REILLY; J. L. KUBIE. *SUNY Downstate Med. Ctr., NYU, SUNY Downstate Med. Ctr.*

3:00 JJJ48 **670.11** ▲ Characterization of dorsal hippocampus neuronal morphology and evaluation of learning and spatial memory in TAIEP rats. D. BRAVO; A. B. SILVA*. *Escuela de Biologia BUAP, Benemérita Univ. Autónoma de Puebla.*

4:00 JJJ49 **670.12** Are adult-generated hippocampal neurons important in drug/context association? P. D. RIVERA*; S. E. LATCHNEY; S. YUN; A. JUST; R. K. RAGHAVAN; M. MCGOVERN; S. G. BIRNBAUM; A. J. EISCH. *UT Southwestern Med. Ctr.*

1:00 JJJ50 **670.13** NMDA receptors in the lateral entorhinal cortex are selectively involved in the acquisition of cross modal associations in the rat. B. M. FERRY*; L. BOISSELIER; R. GERVAIS. *CRNL- CNRS UMR 5292 - INSERM U 1028 - UCBL1.*

2:00 JJJ51 **670.14** Selective activation of the sk1 subtype of small conductance ca^{2+}-activated k+ channels by 4-(2-methoxyphenylcarbamoyloxymethyl)-piperidine-1-carboxylic acid tert-butyl ester (gw542573x) in c57bl6j mice impairs hippocampal-dependent memory. C. A. RICE-KUCHERA*; A. RABINOWITZ; A. H. MUNCHOW; G. ZHANG; R. W. STACKMAN, Jr. *Florida Atlantic Univ.*

3:00 JJJ52 **670.15** Object-specific activity recorded from C57BL/6J mouse hippocampal CA1 neurons. H. N. ASGEIRSDOTTIR*. *Florida Atlantic Univ.*

4:00 JJJ53 **670.16** Effects of intracerebral VEGF injections on microvascular density and hippocampal-dependent memory. A. GIACINTI; A. MOUCHARD; N. BIENDON; O. NICOLE; B. BONTEMPI*; N. MACREZ. *Inst. Des Maladies Neurodégénératives, CNRS UMR 5293, Univ. de Bordeaux, Inst. des Maladies Neurodégénératives, UMR 5293.*

1:00 JJJ54 **670.17** Properties of hippocampal CA1 place cells in Neuralized1 mice. S. A. HUSSAINI*; E. PAVLOPOULOS; E. KANDEL. *Columbia Univ.*

2:00 JJJ55 **670.18** Dendritic spiking and subthreshold membrane potential of cortical neurons during slow-wave-sleep in unanesthetized animals. J. J. MOORE*; M. R. MEHTA. *UCLA, UCLA, UCLA, UCLA, UCLA, UCLA.*

3:00 JJJ56 **670.19** Pattern separation in hippocampus and in non-hippocampal cortical regions. T. L. GULBRANDSEN*; R. MIAZGA; R. J. SUTHERLAND. *Univ. of Lethbridge.*

4:00 JJJ57 **670.20** The effects of fear conditioning and extinction on neuronal synchronization and spatial representations in the hippocampus. M. E. WANG*; R. K. YUAN; I. A. MUZZIO. *Univ. of Pennsylvania, Univ. of Pennsylvania.*

1:00 JJJ58 **670.21** Contextual learning induces changes in dendritic spine stability and spine clustering in retrosplenial cortex. A. FRANK*; A. GDALYAHU; J. T. TRACHTENBERG; A. J. SILVA. *UCLA, UCLA, UCLA, UCLA, UCLA.*

2:00 JJJ59 **670.22** Sequence-based neural circuit dynamics during learning in multisensory virtual reality. Y. LU*; D. ARONOV; D. W. TANK. *Princeton Univ., Princeton Univ.*

3:00 JJJ60 **670.23** Radial arm maze performance and anatomical brain plasticity. D. VOUSDEN*; A. METCALF; S. SPRING; C. ALM; M. PALMERT; J. LERCH. *Hosp. For Sick Children, Univ. of Toronto.*

4:00 JJJ61 **670.24** ● Hippocampal longitudinal axis differences in processing emotional content: Examining Arc expression during a change of emotional context but no change of trajectory. A. SWANSON*; N. KIDWAI; Y. YOUSSEF; A. GHEIDI; E. J. MARKUS; D. MARRONE. *Univ. of Connecticut, Wilfrid Laurier Univ., Evelyn F. McKnight Brain Inst. Univ. of Arizona.*

1:00 JJJ62 **670.25** Scanning the sensory periphery during place map formation. J. D. LONG II*; A. BERENYI; G. BUZSAKI. *New York Univ., Rutgers Univ., Univ. of Szeged.*

● Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 JJJ63 **670.26** Multisensory object representations facilitate recognition across modalities: Critical role of the perirhinal cortex in binding visual and tactile object information. D. JACKLIN*; J. CLOKE; A. POTVIN; I. GARRETT; B. D. WINTERS. *Univ. of Guelph.*

3:00 JJJ64 **670.27** Distinct CA3 attractor states revealed by mean field modeling. H. N. YOUSIF*; T. SOLSTAD; T. J. SEJNOWSKI. *Salk Inst. For Biol. Studies, Norwegian Univ. of Sci. and Technol.*

4:00 JJJ65 **670.28** Direction and boundaries in medial entorhinal cortex. F. SAVELLI*; J. D. LUCK; J. J. KNIERIM. *Johns Hopkins Univ., Johns Hopkins Univ.*

1:00 JJJ66 **670.29** Experience-dependent effects of adult-generated neurons on granule cell activity in the dentate gyrus. E. PARK*; N. BURGHARDT; D. DVORAK; R. HEN; A. A. FENTON. *New York Univ., Columbia Univ., New York Univ.*

2:00 JJJ67 **670.30** A multimodular model of attractor-map representation of space. A. V. SAMSONOVICH*. *George Mason Univ.*

POSTER

671. Learning and Memory: Genes, Signaling and Neurogenesis II

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 JJJ68 **671.01** Rats selectively bred for high running capacity have elevated hippocampal neurogenesis that is accompanied by enhanced pattern separation ability. C. L. WILLIAMS*; C. M. TOGNONI; S. L. BRITTON; L. G. KOCH; L. W. JONES. *Duke Univ., Univ. of Michigan Med. Ctr., Duke Univ. Med. Ctr.*

2:00 JJJ69 **671.02** ▲ Rats selectively bred for high running capacity have elevated hippocampal neurogenesis that is accompanied by a greater expression of hippocampal glucocorticoid receptors and altered contextual fear conditioning. K. M. ANDREJKO*; C. M. TOGNONI; L. G. KOCH; S. L. BRITTON; L. W. JONES; C. L. WILLIAMS. *Duke Univ., Univ. of Michigan Med. Ctr., Duke Univ. Med. Ctr.*

3:00 JJJ70 **671.03** Irradiation-induced reduction of hippocampal neurogenesis causes long-term deficits in discriminating shapes and locations, and associating fear with context. C. M. TOGNONI*; L. L. WILLIAMSON; C. L. WILLIAMS. *Duke Univ.*

4:00 KKK1 **671.04** ▲ Treadmill exercise training only enhances neurocognitive function if it is accompanied by significantly increases in aerobic capacity. J. M. SAIKIA*; J. DU; C. M. TOGNONI; L. G. KOCH; S. L. BRITTON; R. M. PEACE; L. W. JONES; C. L. WILLIAMS. *Duke Univ., Univ. of Michigan Med. Ctr., Duke Univ.*

1:00 KKK2 **671.05** Touch-screen operant conditioning implicates adult hippocampal neurogenesis in reversal learning but not spatial discrimination learning. A. A. SWAN*; J. E. C. CLUTTON; P. KESAVAN CHARY; H. HAU; T. CHUNG; C. CHITTURI; R. BALIJEPALLY; S. COOK; S. GURAJALA; G. LIU; L. KIM; M. R. DREW. *Univ. of Texas At Austin, Univ. of Texas at Austin.*

2:00 KKK3 **671.06** ● The PDE4 inhibitor HT-0712 improves memory in aged mice. M. PETERS*; J. STANLEY; J. LAPIRA; D. WHEELER; T. TULLY. *Dart Neuroscience, LLC.*

3:00 KKK4 **671.07** Lipocalin 2 is involved in animal behavior. A. C. FERREIRA; V. PINTO; S. D. MESQUITA; A. NOVAIS; J. C. SOUSA; M. CORREIA-NEVES; N. SOUSA; J. A. PALHA; F. MARQUES*. *Life and Hlth. Sci. Res. Inst. (ICVS), Sch. of Hlth. Sciences, U.*

4:00 KKK5 **671.08** Heteroplasmy of mouse mtdna leads to altered behavior and learning and memory. C. A. DE SOLIS*; M. MCMANUS; D. WALLACE. *Children's Hosp. of Philadelphia, Ctr. for Mitochondrial and Epigenomic Med., Children's Hosp. of Philadelphia, Univ. of Pennsylvania.*

1:00 KKK6 **671.09** ▲ Prenatal choline supplementation reverses the downregulation of hippocampal gene expression resulting from gestational iron deficiency. K. A. THIBERT*; B. C. KENNEDY; A. J. SIDDAPPA; P. V. TRAN; J. C. GEWIRTZ; M. K. GEORGIEFF. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

2:00 KKK7 **671.10** The topographic localization of new neurons in the dentate gyrus following exercise and fluoxetine treatment. E. MARANDI; M. SALIM; J. QUADRILATERO; E. SATVAT*. *Univ. of Waterloo, Univ. of Waterloo.*

3:00 KKK8 **671.11** Identifying neocortical areas of elevated sensory and cognitive activities via functional Arc-driven bioluminescence imaging. N. YAGISHITA-KYO*; H. OKUNO; S. KAMIJO; T. KAWASHIMA; S. TAKEMOTO-KIMURA; H. BITO. *Grad. Sch. of Medicine, The Univ. of Tokyo, PRESTO, JST, CREST, JST.*

4:00 KKK9 **671.12** Neural ensembles in hippocampal and retrosplenial cortex underlying learning of two tones discrimination task in the 8 arms radial maze. R. OLIVARES-MORENO*, III; E. E. ESPARZA-RIVERA; C. LOZANO-FLORES; V. RAMIREZ-AMAYA. *UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO, UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO.*

1:00 KKK10 **671.13** Expression of Arc/Arg3.1 in the striatum and hippocampus after an over-reinforced inhibitory avoidance task. D. A. GONZALEZ FRANCO*; R. A. PRADO-ALCALÁ; V. RAMÍREZ-AMAYA; G. L. QUIRARTE. *Inst. de Neurobiología UNAM.*

2:00 KKK11 **671.14** Mossy fiber expansion correlates with spatial pattern separation and spatial pattern completion. M. CARASATORRE; C. LOZANO-FLORES; S. DÍAZ-CINTRA; V. RAMIREZ-AMAYA*. *Inst. de Neurobiología UNAM, Inst. De Neurobiologia UNAM, Inst. De Neurobiologia UNAM.*

3:00 KKK12 **671.15** Different generations of granular neurons incorporated either pre-natal or post-natal present a different response probability to spatial and object-recognition memory depending on the age of the animal. P. BELLO-MEDINA*; V. RAMIREZ-AMAYA. *Inst. de Neurobiología-UNAM.*

4:00 KKK13 **671.16** ▲ Transgenerational effects of perinatal iron deficiency on gene expression and behavior in rats. M. B. BLEGEN*; B. C. KENNEDY; P. V. TRAN; J. C. GEWIRTZ; M. K. GEORGIEFF. *Univ. of Minnesota, Univ. of Minnesota, Univ. of Minnesota.*

1:00 KKK14 **671.17** Cognitive impairments in BK channel knock-out mice. S. SCHMID*; M. TYPLT; M. MIRKOWSKI; E. AZZOPARDI; L. RUETTIGER; P. RUTH. *Univ. Western Ontario, Univ. of Tuebingen, Univ. of Tuebingen.*

2:00 KKK15 **671.18** Sex differences in IEG activation in the hippocampus and the dorsal striatum after the cue competition task. S. YAGI*; D. DREWCZYNSKI; S. R. WAINWRIGHT; C. K. BARHA; O. HERSHORN; L. A. M. GALEA. *Univ. of British Columbia, Univ. of Amsterdam, Univ. of British Columbia, Univ. of British Columbia.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 KKK16 **671.19** Enhancement of neurogenesis in middle aged rats by green tea and nigella sativa extracts. M. S. RAO*; W. M. RENNO; S. SMITHA; M. SUMANA. *Kuwait Univ.*

4:00 KKK17 **671.20** A framework for investigating the effects of neural turnover in pattern classifcation. A. J. DECOSTANZO*; T. FUKAI. *RIKEN, CREST, Japan Sci. and Technol.*

POSTER

672. Learning and Behavior in Invertebrates

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK18 **672.01** Is PKC53e-activity in motorneurons involved in operant self-learning in *Drosophila?* J. COLOMB; B. BREMBS*. *Freie Univ. Berlin, Univ. Regensburg.*

2:00 KKK19 **672.02** Characterization of a phospholipase D knock-out model in Caenorhabditis elegans. T. G. OLIVEIRA*; F. V. BRAVO; A. TEIXEIRA-CASTRO; R. B. CHAN; G. DI PAOLO; N. SOUSA. *Life and Hlth. Sci. Res. Inst. (ICVS), Sch. of Hlth. Sciences, U, Columbia Univ.*

3:00 KKK20 **672.03** Characterization of a learning and sensory integration gene in Caenorhabditis elegans. G. S. WOLFE*; D. VAN DER KOOY. *Univ. of Toronto, Univ. of Toronto.*

4:00 KKK21 **672.04** Effect of learning on a decision making network. Z. PIRGER; Z. LASZLO; S. NASKAR; P. R. BENJAMIN*; M. O'SHEA; G. KEMENES; I. KEMENES. *Univ. Sussex.*

1:00 KKK22 **672.05** Invertebrate foxp: A case for deep homology? A. SCHATTON*; E. MENDOZA; G. LEBOULLE; S. MERTEL; S. SIGRIST; C. SCHARFF. *Freie Univ. Berlin.*

2:00 KKK23 **672.06** Studies of structural and functional plasticity underlying learning in the adult brain of the fruit fly. L. G. BALTRUSCHAT*; A. FIALA; G. TAVOSANIS. *DZNE, Mol. Neurobio. of Behavior.*

3:00 KKK24 **672.07** Dermal photoreceptor in Lymnaea. S. TAKIGAMI; M. SAKAKIBARA*. *Tokai Univ., Tokai Univ.*

4:00 KKK25 **672.08** Octopamine and tyramine regulate the sucrose sensitivity in the honeybee (Apis mellifera) depending on the animals feeding state. C. BUCKEMULLER; R. ZEUMER; A. ÖLSCHLÄGER; E. RIEL; O. SIEHLER; D. EISENHARDT*. *Freie Univ. Berlin.*

1:00 KKK26 **672.09** The reward magnitude in conditioning of the honey bee's proboscis extension response affects memory formation. K. MARTER*; L. BOTHE; L. MORGENSTERN; C. LEWA; D. EISENHARDT. *Freie Univ. Berlin.*

2:00 KKK27 **672.10** Nitric oxide (NO) mediates LTP induction in the learning and memory area in the brains of octopus and cuttlefish. A. TURCHETTI-MAIA*; B. HOCHNER; T. SHOMRAT. *Dept. Neurobiology, Silberman Inst. of Life Sciences, The Hebrew Univ., ELSC, HUJI, ICNC, HUJI, The Ruppin Academic Ctr. Sch. of Marine Sci.*

3:00 KKK28 **672.11** Cephalopod Neurogenomics. G. C. WINTERS*; A. B. KOHN; N. STERN; K. KOCOT; K. HALANYCH; B. HOCHNER; E. T. WALTERS; A. DI COSMO; L. L. MOROZ. *Univ. of Florida- Whitney Lab. for Marine Biosci., The Hebrew Univ. of Jerusalem, Auburn Univ., Univ. of Texas, Univ. of Napoli Federico II, McKnight Brain Inst.*

4:00 KKK29 **672.12** Nitric oxide is necessary for reconsolidation of context memory in terrestrial snails. P. M. BALABAN*; M. ROSHCHIN; A. TIMOSHENKO; K. GAINUTDINOV; T. GAINUTDINOVA; T. KORSHUNOVA. *Inst. Higher Nervous Activity & Neurophysiol. RAS, Kazan State Univ.*

1:00 KKK30 **672.13** The roles of dopamine in sexual behavior and plasticity. J. LIM*; A. NAVA; K. HAN. *Univ. of Texas At El Paso.*

POSTER

673. Neural Mechanisms Mediating Emotion

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK31 **673.01** Sex differences in the basolateral amygdala. S. R. BLUME*; A. HETZEL; J. A. ROSENKRANZ. *Rosalind Franklin Univ. of Med. and Sci.*

2:00 KKK32 **673.02** Emotional and affective Implications of adult neurogenesis. P. HUANG; L. M. RANGEL; S. I. ALFONSO; L. QUINN*; F. H. GAGE; A. A. CHIBA. *UCSD, Boston Univ., Salk Inst.*

3:00 KKK33 **673.03** Amygdala- and mPFC-mediated network responses to emotional stimuli: A beta-series correlation analysis. D. KANG*; Y. LIU; V. MISKOVIC; A. KEIL; M. DING. *J. Crayton Pruitt Family Dept. of Biomed. Engineering, Univ. of Florida, Dept. of Psychology and NIMH Ctr. for the Study of Emotion & Attention, Univ. of Florida.*

4:00 KKK34 **673.04** The effect of pedaling exercise on emotion, electroencephalogram and the serotoninergic system. S. OHMATSU*; T. TOMINAGA; S. MORIOKA. *Murata Hosp., Kio Univ.*

1:00 KKK35 **673.05** Self-distancing suppresses neural activity of both aversive prediction and prediction error during emotional learning. S. MULEJ BRATEC*; X. XIE; M. BRANDI; V. KRUPP; A. WOHLSCHLÄGER; V. RIEDL; C. SORG. *Technische Univ. München, Technische Univ. München, Ludwig-Maximilians-Universität München, Ludwig-Maximilians-Universität München, Technische Univ. München, Technische Univ. München.*

2:00 KKK36 **673.06** Trait anxiety modulates amygdala and ventromedial prefrontal function during acquisition and extinction of conditioned fear. A. L. ACHAIBOU*; J. BIJSTERBOSCH; S. J. BISHOP. *UC Berkeley, Univ. of Oxford Ctr. for Functional MRI of the Brain.*

3:00 KKK37 **673.07** A study of perceptual determinants of fear generalization in healthy humans. E. A. BOEKE; S. NASR; M. R. MILAD; R. B. H. TOOTELL; D. J. HOLT*. *Massachusetts Gen. Hosp., Massachusetts Gen. Hosp.*

4:00 KKK38 **673.08** Neural correlates of self- and socially-induced cognitive regulation of aversive emotions. X. XIE*; S. MULEJ BRATEC; G. SCHMID; M. BRANDI; A. WOHLSCHLÄGER; V. RIEDL; R. PEKRUN; C. SORG. *Ludwig-Maximilians-Universität München, Technische Univ. München, Technische Univ. München, Ludwig-Maximilians-Universität München, Technische Univ. München, Technische Univ. München, Technische Univ. München.*

1:00 KKK39 **673.09** Event-related spectral perturbation measurement under emotional changes. H. LEE*; R. DU. *Chonbuk Natl. Univ., Ctr. for Advanced Image and Information Technol.*

2:00 KKK40 **673.10** Modulatory effects of tolcapone on neural circuits underlying emotion processing. N. D. FOGLEMAN; C. J. LI; R. RASETTI; Q. CHEN; K. F. BERMAN; D. R. WEINBERGER; V. S. MATTAY; J. A. APUD*. *NIH, Natl. Inst. of Mental Hlth., The Lieber Inst. for Brain Develop.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 KKK41 **673.11** ● Identification and distribution of vasopressin 1a receptor in human and monkey brain. S. LU; N. G. SIMON*; M. PALKOVITS; M. J. BROWNSTEIN. *Lehigh Univ., Azevan Pharmaceuticals, Inc., Semmelweis Univ.*

4:00 KKK42 **673.12** Identification of sites of sympathetic outflow at rest and during emotional arousal: Concurrent recordings of skin sympathetic nerve activity and fMRI in humans. V. MACEFIELD*; C. JAMES; L. A. HENDERSON. *Univ. of Western Sydney, Neurosci. Res. Australia, Univ. of Sydney.*

1:00 KKK43 **673.13** Complex brain networks of deployed veterans with PTSD: A graph theoretical analysis. M. KENNIS*; A. R. RADEMAKER; S. J. H. VAN ROOIJ; M. VAN DEN HEUVEL; R. S. KAHN; E. GEUZE. *Psychiatry, Univ. Med. Ctr. Utrecht, Res. Ctr. Military Mental Hlth. Ministry of Defence.*

2:00 KKK44 **673.14** fMRI investigation of career-related emotional stress among junior medical center faculty. J. BRUNO*; K. SHEAU; M. C. KU; C. SANDBORG; M. WINKLEBY; P. LAVORI; V. S. PERIYAKOIL; G. WALTON; S. CORRELL; S. GIROD; B. HAAS; D. GREWAL; A. L. REISS; H. VALANTINE. *Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Stanford Univ., Univ. of Georgia, Stanford Univ., Stanford Univ.*

POSTER

674. Rodent Models of Reward Processing

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK45 **674.01** Optogenetic investigation of affective role of substantia nigra dopamine neurons and their projection targets. A. ILANGO*; A. KESNER; K. KELLER; S. IKEMOTO. *Natl. Inst. On Drug Abuse-National Inst. of Hlth.*

2:00 KKK46 **674.02** The role of nucleus accumbens extracellular signal-regulated kinase (ERK) signaling in reward function in rats. E. H. CHARTOFF*; D. N. POTTER; A. B. RACHLIN; J. J. JENKINS; A. M. SPARROW. *Harvard Med. Sch.*

3:00 KKK47 **674.03** Cortical and subcortical strutures involved in the reinforcement omission effects modulation. T. TAVARES*; D. M. JUDICE-DAHER; J. L. O. BUENO. *Univ. de São Paulo.*

4:00 KKK48 **674.04** Neuronal activity of the insular cortex modulates reward approach behavior in mice. I. KUSUMOTO-YOSHIDA*; B. T. CHEN; A. BONCI. *Intramural Res. Program, Natl. Inst. on Drug Abuse, JSPS Res. Fellowship for Japanese Biomed. and Behavioral Researchers at NIH, Dept. of Neurology, Univ. of California San Francisco, Solomon H. Snyder Neurosci. Institute, Johns Hopkins Sch. of Med.*

1:00 KKK49 **674.05** Reward-based modulation of neural activity in the dorsal raphe nucleus. K. CLISSOLD*; H. H. YIN. *Duke Univ.*

2:00 KKK50 **674.06** On the circuitry that mediates locomotor activation following injection of bicuculline into the lateral preoptic area. H. LAVEZZI*; K. P. PARSLEY; D. S. ZAHM. *St. Louis Univ. Sch. of Med.*

3:00 KKK51 **674.07** ● Imaging emotional responses in transgenic Fragile X rats: Evidence of dysfunction in reward processing. W. KENKEL; J. YEE; K. M. GAMBER*; P. SIMMONS; M. NEDELMAN; P. KULKARNI; C. F. FERRIS. *Northeastern Univ., SAGE Labs, Ekam Imaging.*

4:00 KKK52 **674.08** Subthalamic nucleus encodes appetitive and aversive reinforcers, execution error and reward prediction error, in the rat. E. BREYSSE; C. BAUNEZ*. *INT CNRS UMR7289.*

1:00 KKK53 **674.09** Dissociating sign- and goal-tracking function using a 2-CS Pavlovian conditioned approach task. J. J. CHOW*; J. S. BECKMANN. *Univ. of Kentucky.*

2:00 KKK54 **674.10** ▲ Dorsomedial striatal control of cue-directed versus goal-directed Pavlovian approach behavior. E. G. O'DONNELL*; B. T. SAUNDERS; T. E. ROBINSON. *Univ. of Michigan, Ernest Gallo Clin. and Res. Center, Univ. of California at San Francisco.*

3:00 KKK55 **674.11** Acetylcholine in the nucleus accumbens modulates conditioned reward-seeking behaviors in rats. K. A. WRIGHT*; J. DU HOFFMANN; S. NICOLA. *Albert Einstein Col. of Med.*

4:00 KKK56 **674.12** Connections of the lateral hypothalamic area juxtaventromedial region, dorsal zone (LHAjvd) in the male rat. J. D. HAHN*; L. W. SWANSON. *USC.*

1:00 KKK57 **674.13** Prolonged exposure to a "junk food" diet decreases D2 mRNA expression in NAc and VTA of all rats, while selectively enhancing cue-induced motivation for sweet incentives in obesity-prone rats. C. R. FERRARIO; M. J. F. ROBINSON; P. R. BURGHARDT; C. W. NOBILE; H. AKIL; S. J. WATSON; K. C. BERRIDGE*. *Univ. of Michigan, Univ. of Michigan, Univ. of Michigan.*

2:00 KKK58 **674.14** Enhanced motivation for cues paired with sucrose and sucrose itself in rats selectively bred for propensity or resistance to diet induced obesity. C. W. NOBILE; C. R. FERRARIO*. *The Univ. of Michigan.*

POSTER

675. Vocal Communication: Avian II

Theme F: Cognition and Behavior

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 KKK59 **675.01** Spatial organization of synchronous cell assemblies in HVC. J. E. MARKOWITZ*; G. GUITCHOUNTS; T. J. GARDNER. *Boston Univ., Boston Univ.*

2:00 KKK60 **675.02** Local field responses to audiovisual stimuli in visual and auditory areas wirelessly recorded in freely moving zebra finches. B. C. JOHN; B. S. JOHN; K. TOKAREV; H. U. VOSS; O. TCHERNICHOVSKI*; S. A. HELEKAR. *The Methodist Hosp. Res. Inst., Hunter Col., Weill-Cornell Med. Col., Weill-Cornell Med. Col.*

3:00 KKK61 **675.03** Syllable-specific rules in the microstructure of birdsong. A. CANOPOLI*; A. E. STEPIEN; V. Y. WANG; A. VYSSOTSKI; R. H. R. HAHNLOSER. *Inst. of Neuroinformatics.*

4:00 KKK62 **675.04** FoxP2 target genes Vldlr and Cntnap2 are coregulated by undirected song and age in Area X of male zebra finches. I. ADAM*; C. SCHARFF. *Free Univ. Berlin.*

1:00 KKK63 **675.05** A locally generated glutamate signal in zebra finch Area X. A. BUDZILLO*; D. J. PERKEL. *Univ. of Washington, Univ. of Washington.*

2:00 KKK64 **675.06** Lateralized memory-related neuronal activation during sleep in juvenile zebra finches. S. MOORMAN*; S. M. H. GOBES; F. C. VAN DE KAMP; M. A. ZANDBERGEN; J. J. BOLHUIS. *Utrecht Univ., Wellesley Col.*

Tue. PM

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 KKK65 **675.07** Variety of auditory response to bird's own songs in NCM neurons of Bengalese finches. S. ONO*; K. OKANOYA; Y. SEKI. *Grad. Sch. of Arts and Sciences, the Univ. of Tokyo, Emotional Information Joint Res. Laboratory, RIKEN Brain Sci. Inst., ERATO, Japan Sci. and Technol. Agency.*

4:00 KKK66 **675.08** ▲ Bowerbirds show a distinctive cerebrotype but no enlargement of the mesopallium. A. PARK*; P. GOKHALE; B. COYLE; G. BORGIA; A. IWANIUK; C. CARR. *Univ. of Maryland, Univ. of Lethbridge.*

1:00 KKK67 **675.09** Adaptive adjustment of local temporal structure in song of Bengalese finches. R. O. TACHIBANA*; N. A. HESSLER; K. OKANOYA. *Univ. of Tokyo.*

2:00 KKK68 **675.10** Syllable-to-syllable acoustic control by neuronal activity of pre-motor brain area in zebra finches revealed by reversible neuronal inhibition through virus-mediated expression of ivermectin-gated chloride channels. Y. YAZAKI-SUGIYAMA*; S. YANAGIHARA; P. M. FULLER; M. LAZARUS. *Okinawa Inst. of Sci. and Technol. (OIST) Grad. Univ., OIST, Harvard Univ., Univ. of Tsukuba.*

3:00 KKK69 **675.11** Neuronal FoxP2 expression and vocal plasticity in adult budgerigars. E. HARA*; O. WHITNEY; E. M. LUCERO; J. M. PEREZ; Q. CHEN; S. A. WHITE; T. F. WRIGHT. *New Mexico State University, Biol. Dept., UCLA, UCLA.*

4:00 KKK70 **675.12** Determining the impact of a language-related gene, FoxP2, on song maintenance in adult male zebra finches. N. F. DAY*; S. A. WHITE. *UCLA.*

1:00 LLL1 **675.13** Semi-automated methodology for vocal phonology and sequence analysis. Z. D. BURKETT*; S. A. WHITE. *UCLA.*

2:00 LLL2 **675.14** Differential expression of FoxP2 in the MMSt during budgerigar development. O. WHITNEY*; E. HARA; T. VOYLES; Q. CHEN; S. A. WHITE; T. F. WRIGHT. *New Mexico State Univ., UCLA, UCLA.*

3:00 LLL3 **675.15** Behavior-driven FoxP2 regulation is critical for zebra finch vocal learning. J. B. HESTON*; O. G. CASILLAS; S. A. WHITE. *UCLA, UCLA, UCLA.*

4:00 LLL4 **675.16** RA cup revisited: An anatomical characterization of multiple descending auditory pathways in the avian arcopallium. N. DENISENKO*; M. S. FEE. *MIT, McGovern Inst.*

1:00 LLL5 **675.17** A fully automated procedure for evaluation of song imitation. Y. MANDELBLAT-CERF*; M. FEE. *MIT.*

2:00 LLL6 **675.18** Experimental evidence in favor of a clock model and against a gesture trajectory extrema (GTE) model of HVC coding. G. F. LYNCH*; M. B. LYNN; M. S. FEE. *MIT.*

3:00 LLL7 **675.19** A rhythmic neural sequence and its subsequent differentiation underlies the emergence of complex vocalizations in juvenile songbirds. T. OKUBO*; M. S. FEE. *McGovern Inst. For Brain Research, MIT.*

4:00 LLL8 **675.20** Inter-hemispheric connections between sensorimotor vocal-control regions and amygdala in songbirds. A. K. GARRISON*; S. W. BOTTJER. *USC.*

1:00 LLL9 **675.21** Characterizing auditory responses to songs in cortical pathways of zebra finches. R. C. YUAN*; S. BOTTJER. *USC.*

2:00 LLL10 **675.22** Effects of chronic ethanol ingestion on vocal development in juvenile zebra finches. C. R. OLSON*; D. C. OWEN; D. TANG; A. E. RYABININ; C. V. MELLO. *OHSU, Lewis and Clark Col., West Linn High Schooi.*

3:00 LLL11 **675.23** Avian loss of the dopamine transporter is possibly compensated by the noradrenaline transporter in songbirds. P. V. LOVELL*; J. CARLETON; B. KISIMI; T. B. MARZULLA; C. V. MELLO. *Oregon Hlth. & Sci. Univ.*

4:00 LLL12 **675.24** An optimized protocol for high-throughput chromogenic *in situ* hybridization of brain sections compatible with high resolution digital imaging. J. CARLETON*; K. HORBACK; P. LOVELL; C. MELLO. *Oregon Hlth. & Sci. Univ.*

1:00 LLL13 **675.25** Auditory representation of social meaning of communicative signals in the songbird brain. K. TOKAREV; J. HYLAND BRUNO; E. LJUBICIC; A. WOODS; S. A. HELEKAR; O. TCHERNICHOVSKI; H. U. VOSS*. *City Univ. of New York, The Methodist Hosp. Res. Inst., Weill Cornell Med. Col.*

POSTER

676. New Molecular and Biological Techniques in Neuroscience II

Theme G: Novel Methods and Technology Development

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LLL14 **676.01** HT behavior-based neuroactive drug discovery in the zebrafish. D. KOKEL*; G. BRUNI; R. PETERSON. *Harvard Med. Sch.*

2:00 LLL15 **676.02** Optogenetic stimulation of medullary neurons in the locust optic lobe. H. WANG*; R. B. DEWELL; J. REIMER; M. U. EHRENGRUBER; F. GABBIANI. *Baylor Col. of Med., Kantonsschule Hohe Promenade, Rice Univ.*

3:00 LLL16 **676.03** Regional gene expression in the zebrafish interpeduncular nucleus. A. SUBEDI*; E. DUBOUÉ; M. HALPERN. *Johns Hopkins University/ Carnegie Inst. For Sci., Carnegie Inst. For Sci.*

4:00 LLL17 **676.04** A novel method to genetically label and control activated ensembles of neurons. P. CAMERON*; R. SANDO; A. MAXIMOV; L. STOWERS. *The Scripps Res. Inst.*

1:00 LLL18 **676.05** Targeting of light-driven proton pumps in mammalian mitochondria: Effect on cellular survival against MPTP-induced cell death. T. WADA*; K. HARA; T. ASAHI; N. SAWAMURA. *Dept. of Life Sci. and Med. Bioscience, Grad. Sch. of Advanced S, Organization of Advanced Sci. and Technology, Kobe Univ., Consolidated Res. Inst. for Advanced Sci. and Med. Care (ASMeW), Waseda Univ., Fac. of Sci. and Engineering, Waseda Univ.*

2:00 LLL19 **676.06** EGFP expressions in the cerebral cortex of rats and monkeys under control of various promoters after lentiviral transduction. M. YAGUCHI*; Y. OHASHI; T. TSUBOTA; A. SATO; K. W. KOYANO; N. WANG; M. MATSUYAMA; T. SEKINE; Y. MIYASHITA. *Univ. of Tokyo, Sch. of Med., The Univ. of Tokyo, Sch. of Sci., Xuanwu Hosp. of Capital medical Univ.*

3:00 LLL20 **676.07** Parameters for virus targeting of cortical areas and neuronal sub-populations in the monkey brain. W. LERCHNER*; B. CORGIAT; V. DER MINASSIAN; R. C. SAUNDERS; B. J. RICHMOND. *NIH.*

4:00 LLL21 **676.08** Development of lentiviral approaches to create a transgenic common marmoset expressing the genetically encoded calcium indicator GCaMP5G. J. PARK; S. CHOI; X. ZHANG; T. P. SANTISAKULTARM; J. PICKEL; A. C. SILVA*. *NIH, NIH.*

1:00 LLL22 **676.09** Production of genetically engineered rodents with transcription activator-like effector nucleases. M. W. ZIMMERMAN; C. FERGUSON; M. MCKAY; G. E. HOMANICS*. *Univ. Pittsburgh.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 LLL23 **676.10** ● Efficient genome editing using zinc finger nucleases in the rat. X. CUI*; A. BROWN; E. KOURANOVA; A. MCCOY; K. FORBES; E. WEINSTEIN. *SAGE Labs.*

3:00 LLL24 **676.11** Locus coeruleus-specific gene expression using bacterial artificial chromosome transgenesis. T. CHALERMPALANUPAP*; A. FRANKLIN; P. SZOT; J. F. CUBELLS; D. WEINSHENKER. *Emory Unviersity, Emory Univ., Univ. of Washington.*

4:00 LLL25 **676.12** Neurochemical comparison of two tryptophan hydroxylase inhibitors in adult and postnatal mice. T. L. GILMAN*; D. J. RAMOS; D. DESAI; S. AMIN; M. YE; M. E. JUNG; K. E. VRANA; A. M. ANDREWS. *UCLA, Penn State Univ., Penn State Col. of Med., UCLA, UCLA.*

1:00 LLL26 **676.13** ● Creation and characterization of two rat Cre lines. K. M. GAMBER; E. V. KOURANOVA*; A. MCCOY; K. FORBES; A. BROWN; D. FISHER; E. WEINSTEIN; X. CUI. *SAGE Labs.*

2:00 LLL27 **676.14** Identification of small molecule Cryptochrome inhibitor modulating the molecular circadian clock. S. CHUN*; S. CHUNG; J. JANG; G. H. SON; Y. G. SUH; K. KIM. *Seoul Natl. Univ., Korea Univ., Seoul Natl. Univ., Korea Univ.*

3:00 LLL28 **676.15** Intracellular control of biased adenosine A2A receptor signaling in the brain and behaviors as revealed by optoA2AR. J. CHEN*; P. LI; J. YOO; W. LI. *Boston Univ. Sch. Med., Third Military Med. Univ.*

4:00 LLL29 **676.16** Nanotechnology-based Intranasal brain delivery of pralidoxime : Optimization and characterization of the preparations. M. A. NAMBOODIRI*; S. BASKOTA; J. KRISHNAN; N. FARKAS; J. MOFFETT; J. DAGATA; A. PEETHAMBARAN. *USUHS, USUHS, NIST.*

1:00 LLL30 **676.17** Dopamine efflux in the nucleus accumbens induced by electrical modulation of the rat fornix/fimbria. H. SHIN*; Y. OH; D. KIM; I. KIM; P. H. MIN; S. CHANG; C. J. KIMBLE; K. E. BENNET; K. H. LEE; D. JANG. *Hanyang Univ., Mayo Clin., Mayo Clin.*

2:00 LLL31 **676.18** ● Efficient generation and characterization of neural stem cells derived from Parkinson's disease patient and age matched control induced pluripotent stem cell lines using a novel neural induction method. B. HANSON*; M. S. PIEKARCZYK; T. SAMPSELL-BARRON; K. BI; Y. A. HUANG; M. VANGIPURAM; J. WESTFALL; S. HERMANSON; C. LEBAKKEN; L. J. REICHLING; D. R. PIPER; M. VEMURI; Y. YAN; J. W. LANGSTON; K. VOGEL; B. SCHUELE. *Life Technologies, The Parkinson's Inst. and Clin. Ctr., Life Technologies.*

3:00 LLL32 **676.19** Efficient gene delivery into mouse auditory brainstem using *in utero* electroporation. L. S. DAVID*; J. AITOUBAH; G. GRANDE; L. WANG. *The Hosp. For Sick Children, Univ. of Toronto.*

4:00 LLL33 **676.20** Design and development of optogenetic tools to manipulate signalling pathways with high spatiotemporal precision in neuronal cells. R. MELERO; M. TUITTILA; L. YADAV; J. MIN; M. J. COURTNEY*. *Univ. of Eastern Finland.*

1:00 LLL34 **676.21** Use of *in vivo* anti-sense morpholinos to knockdown target gene expression in mouse brain. V. LUTGEN; S. D. NARASPIURA; C. YU*; L. AL-HARTHI. *Rush Univ.*

2:00 LLL35 **676.22** ● Validation of TRPV1 and ASIC1a ligand-gated ion channels using automated patch clamp and FLIPR with a novel Ca^{2+} detection dye. X. JIANG*; C. CRITTENDEN; X. DU; Y. KURYSHEV; E. DUZIC. *Mol. Devices, LLC, ChanTest Corp.*

3:00 LLL36 **676.23** Rationally engineered sensors of rapid trains of action potentials. F. ST-PIERRE*; Y. YANG; Y. GONG; J. D. MARSHALL; M. J. SCHNITZER; M. Z. LIN. *Stanford Univ.*

4:00 LLL37 **676.24** Minimally invasive ultrasound based drug delivery in the non-human primate. M. E. DOWNS; T. TEICHERT*; V. P. FERRERA; S. WU; E. KONOFAGOU. *Columbia Univ., Columbia Univ., Columbia Univ.*

1:00 LLL38 **676.25** An automatic approach to manipulate genetic contents of single neurons *in vivo.* L. LI*; B. OULLETTE; A. CHENG; B. TASIC; T. NGUYEN; S. SORENSEN; E. BOYDEN; C. FOREST; H. ZENG. *Allen Inst. For Brain Sci., MIT, Georgia Inst. of Technol.*

2:00 LLL39 **676.26** ▲ Human promoter-driven fluorescent reporters for the isolation of FACS-purified homogeneous populations of development phase and subtype specific iPSC-derived neurons. Human promoter-driven fluorescent reporters for the isolation of FACS-purified homogeneous populations of development phase and subtype specific iPSC-derived neurons. B. A. DEROSA*; K. C. BELLE; J. M. VAN BAAREN; D. M. DYKXHOORN. *Univ. of Miami Miller Sch. of Med., Univ. of Miami Miller Sch. of Med.*

3:00 LLL40 **676.27** Recombinant mouse monoclonal antibodies can be generated easily and allow for multiplex labeling combinations more diverse than with conventional antibodies. B. GONG*; N. P. ANDREWS; C. F. MANNING; J. T. NGUYEN; H. BECHTOLD; J. ENGEBRECHT; J. S. TRIMMER. *UC Davis/NIH NeuroMab Facility, UC Davis, UC Davis.*

4:00 LLL41 **676.28** Medial prefrontal cortex biochemical correlates of high genetic risk for methamphetamine intake in mice. K. D. LOMINAC*; M. G. WROTEN; J. HOLLOWAY; K. TRAVIS; G. RAJASEKAR; D. MALINIAK; T. J. PHILLIPS; K. K. SZUMLINSKI. *UT Austin, Univ. of California Santa Barbara, Oregon Hlth. and Sci. Univ.*

1:00 LLL42 **676.29** Genetic and environmental influences of mean diffusivity in subcortical gray matter - findings from the vietnam era twin study of aging. M. S. PANIZZON*; C. FENNEMA-NOTESTINE; D. RINKER; E. VUOKSIMMA; D. HAGLER, Jr; C. FRANZ; M. LYONS; A. DALE; W. KREMEN. *Univ. of California San Diego, Boston Univ., Univ. of California San Diego.*

2:00 LLL43 **676.30** ● Plasma tau levels in concussed hockey players. J. D. RANDALL*; D. WILSON; P. SHAHIM; K. MINNEHAN; M. GARDEL; B. PINK; L. YORK; S. SULLIVAN; R. MEYER; B. FLAHERTY; C. JACQUES; B. KALLBERG; Y. TEGNER; K. BLENNOW; H. ZETTERBERG. *Quanterix Corp., The Sahlgrenska Acad. at the Univ. of Gothenburg, Sahlgren Univ. Hosp., Luleå Univ. of Technol., UCL Inst. of Neurol.*

POSTER

677. Staining, Tracing, and Imaging Techniques I

Theme G: Novel Methods and Technology Development

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 LLL44 **677.01** The spontaneous electrical activity of neurons in a leech ganglion revealed by a new generation of voltage sensitive dye. M. MOSHTAGH KHORASANI*; E. MILLER; V. TORRE. *SISSA, Univ. of California at San Diego.*

2:00 LLL45 **677.02** SeeDB: a simple and morphology-preserving optical clearing agent for neuronal circuit reconstruction. M. KE*; S. FUJIMOTO; T. IMAI. *Riken Ctr. For Developmental Biol., Kyoto Univ., Japan Sci. and Technol. Agency (JST).*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

3:00 LLL46 **677.03** Revealing 3D neural-glial networks around implanted neuroprosthetic device. S. ZHU; C. HARRIS; Y. XU; Y. LV; K. TRETT; P. MKULKARNI; N. TASKIN; P. CHONG; A. MEROUANE; V. SOMASUNDAR; X. CAI; K. BUTTS; J. LU*; C. STOETZNER; D. KIPKE; B. ROYSAM; R. PADMANABHAN; L. CARIN; W. SHAIN. *Seattle Childrens' Res. Inst., Univ. of Houston, Univ. of British Columbia, Univ. of Michigan, Duke Univ., Univ. of Washington Sch. of Med.*

4:00 LLL47 **677.04** Brain gamma source localization based on *in vivo* mri and relaxation rate. Y. ZHOU*. *New York Univ.*

1:00 LLL48 **677.05** Visualization of brain circuits using new optical imaging method. S. ZENG*; H. XIONG; X. LV; A. LI; Q. LUO; H. GONG. *Huazhong Univ. of Sci. & Technol., Wuhan Natl. Lab. for Optoelectronics.*

2:00 LLL49 **677.06** **Withdrawn.**

3:00 LLL50 **677.07** ● An ensemble algorithm framework for automated stereology. P. R. MOUTON*; B. CHAUDHURY; D. GOLDGOF; H. A. PHOULADY; L. O. HALL. *Univ. of South Florida Col. of Med., Univ. of South Florida, Univ. of South Florida.*

4:00 LLL51-DP10 **677.08** LUMOS: A new optical clearing solution for 3D fluorescent imaging. O. I. EFIMOVA*; K. V. ANOKHIN. *Natl. Res. Ctr. Kurchatov Inst., Moscow Inst. of Physics and Technol., Anokhin Inst. of Normal Phisiology RAMS.*

1:00 LLL52 **677.09** Temporal characteristics of manganese-chloride (MnCl2) accumulation in rabbit somatosensory cortex during whisker vibration. M. P. SCHROEDER*; C. WEISS; D. PROCISSI; J. F. DISTERHOFT. *Northwestern Univ., Northwestern Univ., Northwestern Univ.*

2:00 LLL53 **677.10** A method to optimize ultrastructural quality of long-term fixed and frozen sectioned human brain white matter. X. LIU*; C. SCHUMANN. *Univ. Of Calif, Davis, Univ. Of Calif, Davis.*

3:00 LLL54 **677.11** A new MEG source imaging method and its applications to obtain source amplitude images in human resting-state signals. M. HUANG*; C. W. HUANG; A. ROBB; A. ANGELES; S. L. NICHOLS; D. G. BAKER; T. SONG; M. DIWAKAR; J. M. CANIVE; J. C. EDGAR; Y. CHEN; Z. JI; D. L. HARRINGTON; T. T. LIU; R. SRINIVASAN; R. R. LEE. *UCSD, Westview High Sch., VA San Diego Healthcare Syst., Univ. of New Mexico, Children's Hosp. of Philadelphia, Univ. California, Irvine.*

4:00 LLL55 **677.12** Enhanced staining for whole mouse brain circuit reconstruction. S. MIKULA*; W. DENK. *Max-Planck Inst. For Med. Res.*

1:00 LLL56 **677.13** Relationship between the spatial distribution of CSF flow and DTI metrics in the cervical spinal cord. W. GAGGL*; J. L. REUSS; J. L. ULMER; L. P. MARK; V. PRABHAKARAN; S. N. KURPAD. *Univ. of Wisconsin - Madison, Prism Clin. Imaging Inc., Med. Col. of Wisconsin, Med. Col. of Wisconsin.*

2:00 LLL57 **677.14** Confocal live imaging of mammalian CNS myelination: The turn of the screw. N. GOEBELS*; B. SOBOTTKA; A. KAECH; B. BECHER; U. ZIEGLER. *Heinrich-Heine-University, Dept. of Neurol., Univ. of Zurich.*

3:00 LLL58 **677.15** ● Effects of antipsychotics on ketamine-induced changes in regional tissue oxygenation and inter-regional coherence of low frequency tissue oxygen fluctuations in the freely-moving rat. J. LI*; K. ISHIWARI; M. W. CONWAY; J. HUXTER; J. P. LOWRY; M. TRICKLEBANK; G. GILMOUR. *Lilly Ctr. For Cognitive Neurosci., Natl. Univ. of Ireland.*

4:00 LLL59 **677.16** Multifaceted MRI atlas of the naked-mole rats brain (Heterocephalus glaber). F. SEKI*; K. HIKISHIMA; K. MIURA; E. SASAKI; H. J. OKANO; H. OKANO. *Keio University, Dept. of Physiol., Central Inst. of Exptl. Animals, Jikei Univ.*

1:00 LLL60 **677.17** ● Histological validation of high-resolution dti with structure tensor analysis in human post mortem tissue. A. SEEHAUS*; A. ROEBROECK; L. FONSECA; M. BASTIANI; H. BRATZKE; N. LORI; A. VILANOVA; R. GOEBEL; R. GALUSKE. *Maastricht Univ., Eindhoven Univ. of Technol., Univ. of Coimbra, Forensic Medicine, Goethe-University Frankfurt, Technische Univ. Darmstadt.*

2:00 LLL61 **677.18** A photoconvertible protein-based integrator of neuronal activity. E. SCHREITER*; B. F. FOSQUE; H. DANA; L. L. LOOGER; D. S. KIM. *Howard Hughes Med. Institute, Janelia Farm Res. Campus.*

3:00 LLL62 **677.19** Super-resolution fluorescence imaging of synaptic distributions in the mouse retina. C. M. SPEER*; Y. M. SIGAL; H. P. BABCOCK; X. ZHUANG. *Harvard Univ.*

4:00 LLL63 **677.20** Comprehensive detection and quantitative profiling of brain cytoarchitectural alterations caused by pathophysiological conditions using multiplex imaging and computational image analysis. B. ROYSAM*; Y. LU; Y. XU; V. SOMASUNDAR; N. REY-VILLAMIZAR; P. KULKARNI; K. GRAMA; A. CHEONG; K. TRETT; E. BARTON; T. BOGOSLOVSKY; G. BULL; B. COX; Z. WANG; D. CHUANG; J. LEASURE; W. SHAIN; D. MARIC. *Univ. of Houston, Univ. of Houston, Seattle Children's Res. Inst., Univ. of Houston, Uniformed Services Univ. of the Hlth. Sci., Natl. Inst. of Mental health, Natl. Inst. of Neurolog. Disorders and Stroke.*

1:00 LLL64 **677.21** Reconstructing neural circuits in the fly visual system with Serial-Block-Face-Scanning-EM. C. KAPFER*; K. BOERGENS; M. HELMSTAEDTER; A. BORST. *Max-Planck-Institute of Neurobio., Max-Planck-Institute of Neurobio.*

2:00 LLL65 **677.22** Ocular hypertension causes rapid disruption of microtubules in the retinal nerve fiber bundle. H. LIM*; J. DANIAS. *Hunter Col., SUNY Downstate Med. Ctr.*

3:00 MMM1 **677.23** Imaging and quantitation of small molecule neurotransmitters and metabolites directly in brain tissue sections using MALDI-mass spectrometry imaging. P. E. ANDREN*; M. SHARIATGORJI; A. NILSSON; R. GOODWIN; X. ZHANG; N. SCHINTU; P. SVENNINGSSON. *Uppsala Univ., Karolinska Institutet.*

4:00 MMM2 **677.24** Inter-molecular interactions in STORM used to assess structure and photoactivate single molecules over distances larger than usual FRET limit. A. TANG*; B. E. ALGER; T. A. BLANPIED. *Univ. of Maryland Sch. of Med.*

1:00 MMM3 **677.25** ● New tools for high-throughput electron microscopy of brain tissue. Z. ZHENG; J. PRICE; D. MILKIE; J. RAH; E. PERLMAN; B. KARSH; D. PEALE; H. HESS; D. BOCK*. *Janelia Farm HHMI, Hudson-Price Designs, LLC, Coleman Technologies, Inc., Integral Physics to Engineering, LLC.*

2:00 MMM4 **677.26** The correct scale for imaging myelinated fiber bundles in the human brain. H. BARTSCH*; P. MAECHLER; M. EVRARD; J. ANNESE. *UC San Diego.*

3:00 MMM5 **677.27** Direct imaging and quantitation of acetylcholine in brain tissue sections in old and young mice. M. SHARIATGORJI*; N. SCHINTU; P. SVENNINGSSON; P. ANDREN. *Uppsala Univ., Ctr. for Mol. Med.*

4:00 MMM6 **677.28** Investigation into axonal pathfinding of injured retinal ganglion cells in intact animal tissues. X. LUO*; B. YUNGHER; Y. SALGUEIRO; S. R. BECKERMAN; V. P. LEMMON; P. TSOULFAS; K. K. PARK. *Univ. of Miami.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 MMM7 **677.29** ● Genetically encoded voltage sensors for two-photon polarization microscopy (2PPM). A. BONDAR; V. KUZNETSOVA; L. JIN; L. B. COHEN; V. A. PIERIBONE; J. LAZAR*. *Inst. of Nanobiology & Struct. Biology, GCRC, Univ. of South Bohemia, Yale Univ.*

2:00 MMM8 **677.30** A white matter atlas of the mouse brain : First steps towards an automated pipeline. R. M. STONER*. *UCSD.*

3:00 MMM9 **677.31** Applying the vertebrate neuromere scheme to mammalian brain atlases. C. WATSON; L. PUELLES; G. PAXINOS*. *Curtin Univ., Univ. of Murcia, Neurosci. Res. Australia.*

4:00 MMM10 **677.32** A MRI-based mouse brain atlas. J. F. ULLMANN*. *The Univ. of Queensland.*

1:00 MMM11 **677.33** Localized diffusion magnetic resonance micro-imaging of the live mouse brain. D. WU*; D. REISINGER; J. XU; S. A. FATEMI; P. C. M. VAN ZIJL; S. MORI; J. ZHANG. *Johns Hopkins Univ. Sch. of Med., Kennedy Krieger Inst., Johns Hopkins Univ. Sch. of Medcine, Kennedy Krieger Inst., Johns Hopkins Univ. Sch. of Medcine.*

POSTER

678. Computation, Modeling, and Simulation IX

Theme G: Novel Methods and Technology Development

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 MMM12 **678.01** Influence of timing and magnitude of input current on network synchrony in a computational model of gap junction-coupled hypoglossal motoneurons. H. MEMELLI*; K. G. HORN; L. D. WITTIE; I. C. SOLOMON. *Stony Brook Univ., Stony Brook Univ., Stony Brook Univ.*

2:00 MMM13 **678.02** Nonlinear response properties of excitation and inhibition evoked by complex sound in auditory cortical neurons. I. YAVORSKA*; S. V. DAVID; D. A. BUTTS; M. WEHR. *Univ. of Oregon, Oregon Hlth. & Sci. Univ., Univ. of Maryland.*

3:00 MMM14 **678.03** The effect of short-term depression on cell assembly formation. N. HIRATANI*; T. FUKAI. *RIKEN Brain Sci. Inst., Univ. of Tokyo.*

4:00 MMM15 **678.04** Comparing electrophysiological models of M1and M4 intrinsically photosensitive retinal ganglion cells. O. WALCH*; C. HU; D. FORGER; K. WONG. *Univ. of Michigan, Univ. of Michigan.*

1:00 MMM16 **678.05** Synaptic symmetry increases coherence in a pair of electronic neurons. B. N. S. MEDEIROS*; M. COPELLI. *Univ. Federal De Pernambuco.*

2:00 MMM17 **678.06** Modeling of superbursts in neuronal cultures: Which synaptic and cellular mechanisms are required? T. MÄKI-MARTTUNEN; J. ACIMOVIC*; K. RUOHONEN; M. LINNE. *Tampere Univ. of Technol., Tampere Univ. of Technol.*

3:00 MMM18 **678.07** The contributions of two negative feedback processes in the Hodgkin-Huxley model. S. SENGUL*; R. CLEWLEY; R. BERTRAM; J. TABAK. *Florida State Univ., Georgia State Univ., Florida State Univ., Florida State Univ.*

4:00 MMM19 **678.08** The role of STDP and anticipated synchronization in the connectivity of neuronal populations. P. V. CARELLI*; F. MATIAS; M. COPELLI; C. R. MIRASSO. *Univ. Federal De Pernambuco, Inst. de Física Interdisciplinar y Sistemas Complejos, IFISC CSIC-UIB, Campus Univesitat de les Illes Balears.*

1:00 MMM20 **678.09** Input-dependent transition of traveling waves self-organized in the paradoxical direction of the hippocampal CA3 network with anisotropic inhibition. T. SAMURA; Y. SAKAI; H. HAYASHI; T. AIHARA*. *Tamagawa Univ., Kyushu Inst. of Technol., Tamagawa Univ.*

2:00 MMM21 **678.10** Matching network: A brain micro-circuit model constructed by combinatorial connections of neurons. T. KITSUKAWA*; T. YAGI. *Osaka Univ.*

3:00 MMM22 **678.11** Decoding algorithm for unbiased discovery of brain activity cell assemblies. M. LI*; F. ZHAO; H. KUANG; G. CHEN; J. Z. TSIEN. *Georgia Regents Univ., Univ. Col. London.*

4:00 MMM23 **678.12** Creating and simulating neural networks in the honeybee brain using a graphical toolchain. A. J. COPE*; P. RICHMOND; J. MARSHALL; D. ALLERTON. *Univ. Sheffield, Univ. of Sheffield.*

1:00 MMM24 **678.13** The efficient coding hypothesis: A possible tuning function for developing spiking neural networks. K. D. CARLSON*; J. M. NAGESWARAN; M. RICHERT; N. DUTT; J. L. KRICHMAR. *Univ. of California, Irvine, Brain Corp.*

2:00 MMM25 **678.14** ▲ Incorporating spike-rate adaptation into a neural rate code. L. Q. FLAGG; B. N. RALSTON; J. T. BIRMINGHAM*. *Santa Clara Univ.*

3:00 MMM26 **678.15** Short-term synaptic plasticity generates order-selectivity through dynamic changes in the balance of excitation and inhibition. V. GOUDAR*; W. CHEN; D. BUONOMANO. *UCLA, UCLA.*

4:00 MMM27 **678.16** Activity-dependent structural plasticity of distributed large-scale brain networks. M. BUTZ*; A. MORRISON. *Forschungszentrum Jülich.*

1:00 MMM28 **678.17** An empirical equation for predicting the history-dependence of conduction delay in axons. Y. ZHANG*; D. BUCHER; F. NADIM. *New Jersey Inst. of Technoloy, Univ. of Florida, New Jersey Inst. of Technol.*

2:00 MMM29 **678.18** The Neuroscience Gateway Portal: Facilitating access to high performance computing resources. N. T. CARNEVALE*; A. MAJUMDAR; S. SIVAGNANAM; K. YOSHIMOTO; V. ASTAKHOV; A. BANDROWSKI; M. MARTONE. *Yale Univ. Sch. Med., Univ. of California.*

3:00 MMM30 **678.19** Computational modeling of human adult neurogenesis - information theoretic analysis of biologically realistic dentate gyrus networks . C. VINEYARD*; J. B. AIMONE. *Sandia Natl. Labs.*

4:00 MMM31 **678.20** ● A novel dynamic clamp system based on a discontinuous current clamp amplifier synchronized with the software loop. H. POLDER*; J. LOOSER; W. HEMMERT; J. BENDA. *npi electronic GMBH, npi electronic GMBH, Tech. Univ., Eberhard Karls Univ.*

1:00 MMM32 **678.21** The modulating role of cannabinoids in hippocampal networks: A computational modeling study. M. ZACHARIOU*; S. COOMBES; C. CHRISTODOULOU. *Univ. of Cyprus, Univ. of Nottingham.*

2:00 MMM33 **678.22** Regulating the balance of excitatory and inhibitory synaptic input through inhibitory homeostatic synaptic plasticity. J. WANG; E. NIEBUR*. *Zanvyl Krieger Mind/Brain Institute, Johns Hopkins Univ., Johns Hopkins Univ.*

3:00 MMM34 **678.23** A three-dimensional model of the rat dentate gyrus. C. SCHNEIDER*; H. CUNTZ; I. SOLTESZ. *Univ. of California, Irvine, Ernst Strüngmann Inst. (ESI) for Neurosci. in Cooperation with Max Planck Society, Inst. of Clin. Neuroanatomy, Goethe Univ. Frankfurt.*

4:00 MMM35 **678.24** A biophysically constrained model reveals serial adaptation. B. SUH*; S. BACCUS. *Stanford Univ.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 MMM36 **678.25** ▲ Nonlinear effects induced by stimuli on the phase resetting curve. D. C. VANDERWEYEN*; D. R. TUCK; S. A. OPRISAN. *Col. of Charleston, Col. of Charleston.*

2:00 MMM37 **678.26** Slow potassium currents underlie the spike threshold dynamics of multi-timescale adaptive threshold model. R. KOBAYASHI; K. KITANO*. *Natl. Inst. of Informatics, Ritsumeikan Univ.*

3:00 MMM38 **678.27** Large-scale brain simulations: Modeling a cat cerebellum. J. ZITO*; H. MEMELLI; R. OUKAOUR; I. C. SOLOMON; L. D. WITTIE. *Stony Brook Univ., Stony Brook Univ.*

4:00 MMM39 **678.28** An augmented 2-layer model of spatial processing in pyramidal neuron dendrites that accommodates variations in spine strength, firing rate and short-term synaptic dynamics. L. JIN; B. W. MEL*. *USC, USC.*

1:00 MMM40 **678.29** Fast oscillatory activity: Sparse spike synchronization in mean field neural models. M. F. LEITE*; K. FRISTON; P. FIGUEIREDO; L. LEMIEUX. *Inst. of Neurol., UCL Inst. of Neurol., IST Inst. for Systems and Robotics, UCL Inst. of Neurol.*

2:00 MMM41 **678.30** Simplification of the Hodgkin-Huxley equations and adjustment to current experimental research. A. TCHAPTCHET; H. A. BRAUN*. *Univ. Marburg.*

3:00 MMM42 **678.31** Visualizing the similarity and pedigree of NEURON ion channel models available on ModelDB. W. F. PODLASKI*; R. RANJAN; A. SEEHOLZER; H. MARKRAM; W. GERSTNER; T. VOGELS. *Ecole Polytechnique Fédérale De Lausanne, Ecole Polytechnique Fédérale De Lausanne, Univ. of Oxford.*

4:00 MMM43 **678.32** Conductances are co-regulated in hippocampal oriens-lacunosum/moleculare interneurons: An ensemble modeling analysis. V. SEKULIC*; J. J. LAWRENCE; F. K. SKINNER. *Univ. Hlth. Network, Univ. of Toronto, Univ. of Montana, Univ. of Montana, Univ. of Toronto.*

1:00 MMM44 **678.33** Computational study of a fluorescent indicator dynamic. J. F. LIÉNARD*; S. L. INGRAM; A. G. DIMITROV. *Washington State Univ., Oregon Hlth. & Sci. Univ.*

2:00 MMM45 **678.34** Nanoscale probing of single synapses. M. A. STAHLBERG*; F. LAVOIE-CARDINAL; V. WESTPHAL; K. WILLIG; K. DEISSEROTH; L. L. LOOGER; S. KÜGLER; S. W. HELL; C. DEAN. *European Neurosci. Inst. Göttingen, Max-Planck-Institute for Biophysical Chem., Stanford University/Howard Hughes Med. Inst., Janelia Farm/Howard Hughes Med. Inst., Univ. of Göttingen Med. Sch.*

POSTER

679. Data Analysis and Statistics III

Theme G: Novel Methods and Technology Development

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 MMM46 **679.01** Functional connectivity analysis of dorsal and ventral caudate in humans. H. HUANG*; P. T. NGUYEN; C. C. PRICE; M. DING. *Univ. of Florida, Univ. of Florida.*

2:00 NNN1 **679.02** Objective definition of cortical lamina transitions and the use of novel texture measures for the characterization of cortical architecture. A. T. KARST*; J. HUTSLER. *Univ. of Nevada, Reno, Univ. of Wisconsin Oshkosh, Univ. of Nevada, Reno.*

3:00 NNN2 **679.03** ilastik - a software framework for interactive volume neuro-image analysis. T. KROEGER*; A. KRESHUK; S. BERG; C. N. STRAEHLE; B. X. KAUSLER; G. KNOTT; S. MIKULA; W. DENK; D. BOCK; A. CARDONA; P. RIVLIN; S. PLAZA; L. SCHEFFER; D. B. CHKLOVSKII; U. KOETHE; F. A. HAMPRECHT. *Heidelberg Univ., HHMI Janelia Farm, EPFL, MPIMF.*

4:00 NNN3 **679.04** Using sensitivity analysis to interpret machine learning applied to fMRI data. A. FLOREN*; B. NAYLOR; D. RESS. *Univ. of Texas at Austin.*

1:00 NNN4 **679.05** JICA integration of MEG with fMRI and EEG to improve neural source reconstruction within subjects. N. J. HEUGEL*; E. LIEBENTHAL; S. A. BEARDSLEY. *Marquette Univ., Med. Col. of Wisconsin, Boston Univ., Med. Col. of Wisconsin.*

2:00 NNN5 **679.06** Phenotypically informed diagnostic brain mapping: Application to ADHD. M. BJORNSDOTTER*; J. DAUWELS. *Nanyang Technological Univ., Nanyang Technological Univ.*

3:00 NNN6 **679.07** Multi-channel (T1, T2, PD) segmentation improves grey matter estimates for voxel-based morphometry (VBM) within and across age groups. J. R. TAYLOR*; M. CORREIA; R. CUSACK; J. E. PEELLE; . CAM-CAN; R. N. HENSON. *Med. Res. Council, Med. Res. Council, Univ. of Western Ontario, Washington Univ. in St. Louis.*

4:00 NNN7 **679.08** Time and frequency characteristics that distinguish fMRI resting networks. D. A. HANDWERKER*; P. WU; J. GONZALEZ-CASTILLO; Z. YANG; P. A. BANDETTINI. *NIMH, NIH, Chinese Acad. of Sci.*

1:00 NNN8 **679.09** ● Multilevel dynamic gsca for brain connectivity analysis in functional neuroimaging data. K. JUNG*; H. HWANG; J. JURANEK; T. S. WOODWARD. *Univ. of Texas Hlth. Sci. Ctr. at Houston, McGill Univ., The Univ. of British Columbia.*

2:00 NNN9 **679.10** Extracting spatiotemporal patterns from spontaneous MEG data. Y. TAKEDA*; M. SATO. *ATR Neural Information Analysis Labs.*

3:00 NNN10 **679.11** Detection of steady-state visual evoked potentials for practical Brain-computer interface by canonical correlation analysis. A. HATAKEYAMA*; S. HONDA; J. USHIBA. *Keio Univ.*

4:00 NNN11 **679.12** Beta phase influences the coupling between the simultaneously recorded intracranial EEG (icEEG) and Blood Oxygen Level Dependent (BOLD) signals in the motor cortex of humans performing finger tapping. T.; P. FIGUEIREDO; U. J. CHAUDHARY; D. W. CARMICHAEL; L. LEMIEUX. *Inst. of Neurol., Inst. for Systems and Robotics, Inst. of Child Hlth.*

1:00 NNN12 **679.13** Identify connectivity with directed graphs in multidimensional datasets. H. WANG*; C. G. BÉNAR; P. QUILICHINI; A. BELMALIH; V. JIRSA; C. BERNARD. *Inst. De Neurosci. Des Systèmes, INSERM U1106, Aix-Marseille Univ., Inst. Cellule Souche et Cerveau.*

2:00 NNN13 **679.14** Characterizing individual differences in white matter geometry using termination pattern analysis. M. CIESLAK*; S. GRAFTON. *UCSB.*

3:00 NNN14 **679.15** Detection of very low frequency task signal changes in BOLD fMRI after multi-echo denoising. J. EVANS; P. KUNDU; S. HOROVITZ; P. BANDETTINI*. *NIH, NIH, NIMH-NIH.*

4:00 NNN15 **679.16** Transecting the cortex: A 3-dimensional perspective. N. M. SCHENKER*; H. BARTSCH; J. ANNESE. *UC San Diego.*

● Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

1:00 NNN16 **679.17** A comparison of manual and automated methods of generating hippocampal volume measurements. M. F. SCHMIDT*; J. M. STORRS; K. B. FREEMAN; T. H. MOSLEY. *Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr., Univ. of Mississippi Med. Ctr.*

2:00 NNN17 **679.18** Termination fiber density in the white matter surface associates with cortical thickness in normal ageing. P. CHEN*; H. L. HSIEH; S. H. CHIEN; J. D. LEE; Y. L. CHANG; W. Y. I. TSENG. *Advanced Biomed. MRI Lab, Ctr. For Optoelectronic Biomedicine, Inst. of Zoology, Natl. Taiwan Univ., Inst. of Statistical Sciences, Academia Sinica, Inst. of Biomed. Engineering, Natl. Taiwan Univ., Dept. of Psychology, Natl. Taiwan Univ.*

3:00 NNN18 **679.19** ▲ Hemodynamic response function differences in methamphetamine-dependent and healthy individuals: Implications for statistical modeling of clinical fMRI data. V. E. RAGLAND*; A. ANDERSON; D. G. GHAHREMANI; D. PAYER; M. S. COHEN; K. FRISTON; E. D. LONDON. *UCLA, UCLA, Ctr. for Addiction and Mental Hlth., UCLA, UCLA, Univ. Col. London, UCLA, UCLA.*

4:00 NNN19 **679.20** Pycortex: A Python program for interactive surface visualization of fMRI data. J. GAO*; A. G. HUTH; J. L. GALLANT. *UC Berkeley.*

1:00 NNN20 **679.21** Causal functional contributions derived by game-theoretical analysis of lesions in neglect patients. M. ZAVAGLIA; M. N. TOBA; F. RASTELLI; A. VALERO-CABRE; C. C. HILGETAG*. *Univ. Med. Ctr. Hamburg-Eppendorf, Jacobs Univ. Bremen, Cerebral Dynamics, Plasticity and Rehabil. Team (Equipe de Dynamiques Cérébrales, Plasticité et Rééducation), INSERM CNRS U975 CRICM, Brain and Spine Inst., Project PHRC Régional NEGLECT, DRCD AP-HP, Boston Univ., Boston Univ.*

2:00 NNN21 **679.22** Detection of consistent cognitive processing at the single subject level using whole-brain fmri connectivity. J. GONZALEZ CASTILLO*; C. W. HOY; D. A. HANDWERKER; P. A. BANDETTINI; M. ROBINSON. *SFIM/LBC/NIMH/NIH, SFIM/LBC/NIMH/NIH/, NeuroImaging Res. for Veterans (NeRVe) Ctr.*

3:00 NNN22 **679.23** Quantifying segregation between networks: Application to mild traumatic brain injury. J. KINNISON*; C. SOURS; R. P. GULLAPALLI; L. PESSOA. *Univ. of Maryland, Univ. of Maryland, Univ. of Maryland.*

4:00 NNN23 **679.24** Probabilistic automated cerebellar gray- and white matter segmentation using FreeSurfer and SPM. V. KOPPELMANS*; B. ERDENIZ; S. HIRSIGER; S. MÉRILLAT; L. JÄNCKE; R. D. SEIDLER. *Univ. of Michigan, Sch. of Kinesiology, Intl. Normal Aging and Plasticity Imaging Ctr. (INAPIC), Univ. of Zurich, Dept. of Psychology, Univ. of Michigan, Dept. of Psychology, Univ. of Michigan, Neurosci. Program.*

1:00 NNN24 **679.25** Hemispheric asymmetry of functional nodes in the human cerebral cortex. M. YOON*; B. PARK; C. JANG; S. PARK; J. LEE; H. PARK. *Yonsei Univ., Yonsei Univ. college of medicine, Yonsei Univ. Col. of Med.*

2:00 NNN25 **679.26** Massively-averaged ultra-high tsnr 7t fmri: Response type, activation extent, tissue specificity, and cognitive load effects. C. W. HOY; J. GONZALEZ-CASTILLO; D. A. HANDWERKER; S. T. MARRETT*; P. A. BANDETTINI. *SFIM/LBC/NIMH/NIH, NIMH/NIH.*

3:00 NNN26 **679.27** Assessing dynamics, spatial scale, and uncertainty in task-related brain functional network analyses. E. P. STEPHEN*; K. Q. LEPAGE; U. T. EDEN; J. S. BRUMBERG; F. H. GUENTHER; M. A. KRAMER. *Boston Univ., Boston Univ., Boston Univ., Univ. of Kansas, Boston Univ., Boston Univ.*

4:00 NNN27 **679.28** Classification of single functional magnetic imaging scans of subject-driven cognitive states within and across subjects using support-vector machines. N. E. NAWA*; H. ANDO. *NICT Ctr. for Information and Neural Networks (CiNet).*

1:00 NNN28 **679.29** Computational stages in n-back working memory processing revealed from fMRI data using Hidden Markov Models. C. DEMANUELE*; D. DURSTEWITZ; C. ESSLINGER; P. KIRSCH; H. TOST; A. MEYER-LINDENBERG. *Ctl Inst. of Mental Hlth., Med. Fac. Mannheim of Heidelberg Univ.*

2:00 NNN29 **679.30** Tract-based spatial statistics: A voxel-wise approach to longitudinal analysis of diffusion tensor imaging (DTI) in traumatic brain injury. C. L. FEENEY*; R. LEECH; P. HELLYER; S. JILKA; T. HAM; A. GOLDSTONE; D. SHARP. *Imperial Col. London, MRC Clin. Sci. Ctr.*

POSTER

680. Data Analysis and Statistics IV

Theme G: Novel Methods and Technology Development

Tue. 1:00 PM – *San Diego Convention Center*, Halls B-H

1:00 NNN30 **680.01** Information gain on variable neuronal firing rate. S. KOYAMA*. *The Inst. of Statistical Mathematics.*

2:00 NNN31 **680.02** The power of complexity: A methodological study on neural state space and trajectory reconstruction. E. RUSSO*; D. DURSTEWITZ. *Central Inst. of Mental Hlth., Bernstein-Center for Computat. Neurosci., Med. Fac. Mannheim of Heidelberg Univ.*

3:00 NNN32 **680.03** Spike sorting for large dense electrode arrays: User interface software. C. ROSSANT*; S. KADIR; K. D. HARRIS. *UCL, UCL.*

4:00 NNN33 **680.04** Biophysically inspired cell assembly detection by Markov stability at multiple scales. Y. N. BILLEH*; M. T. SCHAUB; C. A. ANASTASSIOU; M. BARAHONA; C. KOCH. *Caltech, Imperial Col. London, Caltech, Allen Inst. for Brain Sci.*

1:00 NNN34 **680.05** Monitoring spike train synchrony: SPIKY - A graphical user interface. T. KREUZ*; N. BOZANIC. *Inst. For Complex Systems.*

2:00 NNN35 **680.06** Analysis of electrical activity in a single neuron. K. YOKOYAMA*; I. SUZUKI; D. ITO; K. GOHARA. *Div. Appl. Phys., Fac. Eng., Hokkaido Univ., Res. Fellow of Japan Society for the Promotion of Sci., Dept. of Bionics, Grad. Sch. of Bionics, Computer and Media Science, Tokyo Univ. of Technol., Div. of Functional Life Science, Fac. of Advanced Life Science, Hokkaido Univ.*

3:00 NNN36 **680.07** Successful reconstruction of a physiological circuit with known connectivity from spiking activity alone. F. GERHARD*; T. KISPERSKY; G. J. GUTIERREZ; E. MARDER; M. KRAMER; U. EDEN. *Brain Mind Institute, EPFL, Brandeis Univ., Ecole Normale Superieure, Boston Univ.*

4:00 NNN37 **680.08** Spike sorting for large dense arrays: Algorithms. S. N. KADIR*; C. ROSSANT; D. F. M. GOODMAN; J. SCHULMAN; M. BELLUSCIO; G. BUZSAKI; K. D. HARRIS. *Univ. Col. London, Harvard Med. Sch., Univ. of California, Berkeley, Univ. de Buenos Aires, New York University, Langone Med. Ctr.*

1:00 NNN38 **680.09** Analyzing and classifying of network bursts of maturing human embryonic stem cell derived neurons. F. E. KAPUCU*; J. M. A. TANSKANEN; L. YLÄ-OUTINEN; S. NARKILAHTI; J. A. K. HYTTINEN. *Tampere Univ. of Technol., BioMediTech, Inst. of Biomed. Technology.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

2:00 NNN39 **680.10** Novel mathematical approach to fully unsupervised spike-sorting validated for striatal and cortical neurons. Part I: Enhancing signal-to-noise ratio and evaluating separability. A. FRIEDMAN*; L. G. GIBB; M. D. KESELMAN; A. M. GRAYBIEL. *MIT, MIT.*

3:00 NNN40 **680.11** Novel mathematical approach to fully unsupervised spike-sorting validated for striatal and cortical neurons. Part II: Achieving unimodality and evaluating cluster quality. L. G. GIBB*; A. FRIEDMAN; M. D. KESELMAN; A. M. GRAYBIEL. *MIT.*

4:00 NNN41 **680.12** A new open-source Matlab-based platform for combined analysis of neuronal and behavioural data from freely moving rodents. J. REIS; L. JACINTO; N. SOUSA; N. DIAS*. *Univ. of Minho, Univ. of Minho.*

1:00 NNN42 **680.13** Neural spike sorting for high-density microelectrode arrays with convolutive ICA. C. LEIBIG*; M. DYRHOLM; T. WACHTLER; G. ZECK. *Natural and Med. Sci. Inst. at the Univ. of Tübingen, Grad. Sch. of Neural Information Processing, Ludwig-Maximilians-Universität München, Ctr. for Visual Cognition, Univ. of Copenhagen.*

• Indicated a real or perceived conflict of interest, see page 147 for details.

▲ Indicates a high school or undergraduate student presenter.

Conflict of Interest Statements

The following presenters, signified by a dot (•) in the program, indicated a real or perceived conflict of interest.

Presenters listed without a dot in the program had no financial relationships to disclose.

ABSTRACT NUMBER	STATEMENT
491	**B.V. Zlokovic:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ZZ Biotech.
495.04	**E.D. Roberson:** Other; Royalties on intellectual property.
498	**B.L. Roth:** A. Employment/Salary (full or part-time):; Associate Editor Journal of Clinical Investigation. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Support for visiting scientist from Dai Nippon Sumitomo. F. Consulting Fees (e.g., advisory boards); Pfizer Scientific Advisory Board,.
500.02	**A.G. Bang:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cellular Dynamics International. **S.P. Sherman:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cellular Dynamics International.
501.02	**M. Kiaei:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); The Nrf2 activator CDDO-TFEA was provided by Reata pharmaceuticals.
502.07	**J. Paquette:** A. Employment/Salary (full or part-time):; Ayasdi Inc. **P.Y. Lum:** A. Employment/Salary (full or part-time):; Ayasdi. **G.E. Carlsson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Shareholder, Ayasdi Inc.
502.14	**L.J. Noble-Haeusslein:** A. Employment/Salary (full or part-time):; Physical Therapy and Rehabilitation.
503.02	**L. Westrich:** A. Employment/Salary (full or part-time):; Lundbeck Research USA. **C. Sánchez:** A. Employment/Salary (full or part-time):; Lundbeck Research USA.
503.05	**E. Castrén:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Shareholder and advisor for Hermo Pharma.
503.09	**D.A. Morilak:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; H. Lundbeck A/S, Takeda Pharmaceutical Co. **A. Wallace:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; H. Lundbeck A/S, Takeda Pharmaceutical Co. **A. Pehrson:** A. Employment/Salary (full or part-time):; Lundbeck Research USA. **C. Sanchez-Morillo:** A. Employment/Salary (full or part-time):; Lundbeck Research USA.
503.10	**R.R. Matsumoto:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Avanir Pharmaceuticals, Inc. F. Consulting Fees (e.g., advisory boards); Avanir Pharmaceuticals, Inc.
504.07	**R. Hen:** F. Consulting Fees (e.g., advisory boards); Lundbeck, Roche. **A. Sahay:** F. Consulting Fees (e.g., advisory boards); PsyBrain LLC.
505.02	**P.J. Conn:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; PJC is engaged in collaborations and/or receives research funding from Janssen Pharmaceutica, Bristol Myers Squibb and Astrazeneca.
506.01	**V. Pavlov:** A. Employment/Salary (full or part-time):; The Feinstein Institute for Medical Research, Manhasset, NY. **H. Silverman:** A. Employment/Salary (full or part-time):; The Feinstein Institute for Medical Research, Manhasset, NY. **M. Dancho:** A. Employment/Salary (full or part-time):; The Feinstein Institute for Medical Research, Manhasset, NY. **M. Ochani:** A. Employment/Salary (full or part-time):; The Feinstein Institute for Medical Research, Manhasset, NY. **C. Veith:** A. Employment/Salary (full or part-time):; The Feinstein Institute for Medical Research, Manhasset, NY. **S.L. Dewey:** A. Employment/Salary (full or part-time):; The Feinstein Institute for Medical Research, Manhasset, NY. **Y. Al-Abed:** A. Employment/Salary (full or part-time):; The Feinstein Institute for Medical Research, Manhasset, NY. **E. Golanov:** A. Employment/Salary (full or part-time):; The North Shore Hospital, Manhasset NYI. **K.J. Tracey:** A. Employment/Salary (full or part-time):; The Feinstein Institute for Medical Research, Manhasset, NY.
506.02	**Y. Levine:** A. Employment/Salary (full or part-time):; SetPoint Medical Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SetPoint Medical Corporation. **A. Caravaca:** A. Employment/Salary (full or part-time):; SetPoint Medical Corporation. **M. Faltys:** A. Employment/Salary (full or part-time):; SetPoint Medical Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SetPoint Medical Corporation. **T. Arnold:** A. Employment/Salary (full or part-time):; SetPoint Medical Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SetPoint Medical Corporation. **R. Zitnik:** A. Employment/Salary (full or part-time):; SetPoint Medical Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SetPoint Medical Corporation.
506.03	**Y. Levine:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); SetPoint Medical. **K.J. Tracey:** Other; SetPoint Medical.
506.05	**Y.A. Levine:** A. Employment/Salary (full or part-time):; Setpoint Medical Corporation. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Setpoint Medical Corporation.
508.06	**L.M. Monteggia:** D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); Roche.
510.18	**M.M. Misiak:** A. Employment/Salary (full or part-time):; NIH/NIA/IRP. **P. Sykora:** A. Employment/Salary (full or part-time):; NIH/NIA/IRP. **D. Croteau:** A. Employment/Salary (full or part-time):; NIH/NIA/IRP. **M.P. Mattson:** A. Employment/Salary (full or part-time):; NIH/NIA/IRP. **V.A. Bohr:** A. Employment/Salary (full or part-time):; NIH/NIA/IRP.

ABSTRACT NUMBER STATEMENT

513.06 **K.M. Murphy:** F. Consulting Fees (e.g., advisory boards); Allergan.

514.09 **Y. Yamada:** A. Employment/Salary (full or part-time):; full.

514.11 **R.M. Santangelo Freel:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); co-inventors on Emory owned IP (WO2010/088414 A2). **D. Liotta:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeurOp Inc., Atlanta GA, co-inventors on Emory owned IP (WO2010/088414 A2). F. Consulting Fees (e.g., advisory boards); NeurOp Inc, Atlanta GA. **S.F. Traynelis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeurOp Inc., Atlanta GA, co-inventors on Emory owned IP (WO2010/088414 A2). F. Consulting Fees (e.g., advisory boards); NeurOp Inc, Atlanta GA.

514.12 **J.J. Doherty:** A. Employment/Salary (full or part-time):; Sage Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sage Therapeutics. **S.M. Paul:** A. Employment/Salary (full or part-time):; Sage Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sage Therapeutics. **C.F. Zorumski:** F. Consulting Fees (e.g., advisory boards); Sage Therapeutics. **S. Mennerick:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Sage Therapeutics.

514.13 **Y. Izumi:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Sage Therapeutics. **J.J. Doherty:** A. Employment/Salary (full or part-time):; Sage Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sage Therapeutics. **S.M. Paul:** A. Employment/Salary (full or part-time):; Sage Therapeutics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sage Therapeutics. **C.F. Zorumski:** F. Consulting Fees (e.g., advisory boards); Sage Therapeutics. **S. Mennerick:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Sage Therapeutics.

514.14 **S.M. Paul:** A. Employment/Salary (full or part-time):; Weill Cornell Medical College. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sage Therapeutics.

514.15 **D.C. Liotta:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeurOp Inc. F. Consulting Fees (e.g., advisory boards); NeurOp Inc. **S.F. Traynelis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeurOp Inc. F. Consulting Fees (e.g., advisory boards); NeurOp Inc.

514.17 **D.C. Liotta:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeurOp, Inc. F. Consulting Fees (e.g., advisory boards); NeurOp, Inc. **S.F. Traynelis:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeurOp, Inc. F. Consulting Fees (e.g., advisory boards); NeurOp, Inc., Sage Therapeutics.

ABSTRACT NUMBER STATEMENT

516.03 **M. Kokubo:** A. Employment/Salary (full or part-time):; Ono Pharmaceutical. **C.M. Niswender:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb. **J.S. Daniels:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb. **P.J. Conn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb. **M.R. Wood:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb. **C.W. Lindsley:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb.

516.04 **D.J. Scott:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca and Bristol-Myers Squibb. **C.W. Lindsley:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca and Bristol-Myers Squibb. **C. Jones:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca and Bristol-Myers Squibb. **P.J. Conn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca and Bristol-Myers Squibb.

516.06 **C. Lindsley:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca and Bristol-Myers Squibb. **P.J. Conn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca and Bristol-Myers Squibb.

516.10 **S.C. Hopkins:** A. Employment/Salary (full or part-time):; full-time employee of Sunovion Pharmaceuticals Inc.

516.11 **M.N. Pangalos:** A. Employment/Salary (full or part-time):; AstraZeneca. **S.J. Moss:** F. Consulting Fees (e.g., advisory boards); SAGE Therapeutics, AstraZeneca.

516.16 **S.M. Poli:** A. Employment/Salary (full or part-time):; Addex Therapeutics. **H. Haddouk:** A. Employment/Salary (full or part-time):; Addex therapeutics.

517.16 **M.E. Mäkinen:** A. Employment/Salary (full or part-time):; University of Tampere / BioMediTech. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); The personel of IBT.

518.01 **H.M. Arnold:** A. Employment/Salary (full or part-time):; Neurology Research, Biogen Idec Inc, Weston, Massachusetts, USA. **P. Yang:** A. Employment/Salary (full or part-time):; Biogen Idec. **S. Glass:** A. Employment/Salary (full or part-time):; Biogen Idec. **K. Rhodes:** A. Employment/Salary (full or part-time):; Biogen Idec. **A. Dunnah:** A. Employment/Salary (full or part-time):; Biogen Idec.

518.02 **C.C. Banos:** A. Employment/Salary (full or part-time):; Biogen Idec. **T.R. Chan:** A. Employment/Salary (full or part-time):; Biogen Idec. **F. Jow:** A. Employment/Salary (full or part-time):; Biogen Idec. **E.Y.S. Lin:** A. Employment/Salary (full or part-time):; Biogen Idec. **M.S. Brennan:** A. Employment/Salary (full or part-time):; Biogen Idec. **K.J. Rhodes:** A. Employment/Salary (full or part-time):; Biogen Idec. **R.H. Scannevin:** A. Employment/Salary (full or part-time):; Biogen Idec. **M. Wittman:** A. Employment/Salary (full or part-time):; Biogen Idec. **K.M. Guckian:** A. Employment/Salary (full or part-time):; Biogen Idec. **A.W. Dunah:** A. Employment/Salary (full or part-time):; Biogen Idec.

ABSTRACT NUMBER | STATEMENT

519.02 **W. Minoshima:** Other; Suguru N. Kudoh. **H. Ito:** Other; Suguru N. Kudoh. **S. Kudoh:** B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relation.

520.02 **M. Pollard:** A. Employment/Salary (full or part-time):; Janssen Pharmaceutica NV. **H. Shaban:** A. Employment/ Salary (full or part-time):; Janssen Pharmaceutica NV.

520.14 **N. Takata:** A. Employment/Salary (full or part-time):; Shionogi, Chugai Pharmaceutical, Meiji Seika Pharma, Mochida Pharmaceutical, Yoshitomiyakuhin, Dainippon Sumitomo Pharma. **M. Xu:** A. Employment/Salary (full or part-time):; Shionogi, Chugai Pharmaceutical, Meiji Seika Pharma, Mochida Pharmaceutical, Yoshitomiyakuhin, Dainippon Sumitomo Pharma. **K.F. Tanaka:** A. Employment/Salary (full or part-time):; Shionogi Inc., Chugai Pharmaceutical, Meiji Seika Pharma, Mochida Pharmaceutical, Yoshitomiyakuhin, Dainippon Sumitomo Pharma.

520.22 **N. Bhadra:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuros Medical Inc. F. Consulting Fees (e.g., advisory boards); Neuros Medical Inc. **K.L. Kilgore:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuros Medical Inc. F. Consulting Fees (e.g., advisory boards); Neuros Medical Inc.

520.23 **N. Bhadra:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuros Medical Inc. F. Consulting Fees (e.g., advisory boards); Neuros Medical Inc. **K.L. Kilgore:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Neuros Medical Inc. F. Consulting Fees (e.g., advisory boards); Neuros Medical Inc.

523.06 **B.A. Bahr:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent holder.

523.13 **J. Misik:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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 Agency of the Czech Republic, project P303/12/0611.

523.15 **A.M. Schumacher:** A. Employment/Salary (full or part-time):; Genomics Institute of the Novartis Research Foundation. **R. Pacoma:** A. Employment/Salary (full or part-time):; Novartis. **J. Watson:** A. Employment/Salary (full or part-time):; Novartis. **W. Ou:** A. Employment/Salary (full or part-time):; Novartis. **D.E. Mason:** A. Employment/Salary (full or part-time):; Novartis. **E.C. Peters:** A. Employment/Salary (full or part-time):; Novartis. **H.D. Urbina:** A. Employment/Salary (full or part-time):; Novartis. **A. Althage:** A. Employment/ Salary (full or part-time):; Novartis. **B. Liu:** A. Employment/ Salary (full or part-time):; Novartis. **T. Tuntland:** A. Employment/Salary (full or part-time):; Novartis. **J.L. Harris:** A. Employment/Salary (full or part-time):; Novartis. **J.R. Walker:** A. Employment/Salary (full or part-time):; Novartis.

ABSTRACT NUMBER | STATEMENT

523.17 **J. Stemmelin:** A. Employment/Salary (full or part-time):; Sanofi. **V. Blanchard:** A. Employment/Salary (full or part-time):; Sanofi. **N. Schussler:** A. Employment/ Salary (full or part-time):; Sanofi. **M. Lopez-Grancha:** A. Employment/Salary (full or part-time):; Sanofi. **J. Menager:** A. Employment/Salary (full or part-time):; Sanofi. **V. Mary:** A. Employment/Salary (full or part-time):; Sanofi. **P. Delay-Goyet:** A. Employment/Salary (full or part-time):; Sanofi. **G.A. Bohme:** A. Employment/Salary (full or part-time):; Sanofi. **T. Rooney:** A. Employment/Salary (full or part-time):; Sanofi. **L. Pradier:** A. Employment/Salary (full or part-time):; Sanofi. **J.J. Alam:** A. Employment/Salary (full or part-time):; Sanofi. **S. Claudel:** A. Employment/Salary (full or part-time):; Sanofi. **P. Barneoud:** A. Employment/Salary (full or part-time):; Sanofi.

523.19 **S. Barghorn:** A. Employment/Salary (full or part-time):; AbbVie GmbH & Co KG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); AbbVie GmbH & Co KG. **A. Striebinger:** A. Employment/Salary (full or part-time):; AbbVie. **S. Giaisi:** A. Employment/Salary (full or part-time):; AbbVie. **B. Behl:** 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. Tarcsa:** 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. **C. Grinnell:** 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. **H. Hillen:** 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.

523.20 **B.V. Zlokovic:** Other; BVZ is the scientific founder of Socratech LLC, a startup biotechnology company with a mission to develop new therapeutic approaches for stroke and Alzheimer disease.

524.05 **E.M. Sigurdsson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inventor on NYU patents on tau immunotherapy.

ABSTRACT NUMBER | STATEMENT

525.06 **V. Dang:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **J. Bright:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **S. Hussain:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **L. Nguyen:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **E. Beatti:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **Z. Yang:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **S. Wright:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **U. Shoukat-Muntaz:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **J. Dimos:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **S. Oirion:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **P. Conley:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **N. Stagliono:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc. **I. Griswald-Prenner:** A. Employment/Salary (full or part-time):; iPierian Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian Inc.

525.11 **G.R. Hook:** A. Employment/Salary (full or part-time):; American Life Science Pharmaceuticals. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); American Life Science Pharmaceuticals. **J. Yu:** A. Employment/Salary (full or part-time):; Applied Neurotechnology, Inc. **M. Kindy:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Applied Neurotechnology, Inc. **V. Hook:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); American Life Sciences.

526.01 **J.M. Henderson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intelect Medical and Nevro Corp. F. Consulting Fees (e.g., advisory boards); Intelect Medical and Nevro Corp.

ABSTRACT NUMBER | STATEMENT

526.02 **J.M. Henderson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intelect Medical and Nevro Corp. F. Consulting Fees (e.g., advisory boards); Intelect Medical and Nevro Corp.

526.22 **G. Sapiro:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Surgical Information Sciences, Inc. **N. Harel:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Surgical Information Sciences, Inc. **C. McIntyre:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Surgical Information Sciences, Inc. F. Consulting Fees (e.g., advisory boards); Boston Scientific Neuromodulation, Corp.

526.26 **J.M. Henderson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intelect Medical. F. Consulting Fees (e.g., advisory boards); Intelect Medical.

527.02 **B. Brown:** A. Employment/Salary (full or part-time):; University of Kentucky. **C. van Horne:** Other; Medtronic.

527.03 **D.T. Brocker:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Deep Brain Innovations, LLC. **D.A. Turner:** F. Consulting Fees (e.g., advisory boards); Deep Brain Innovations, LLC. **R.E. Gross:** F. Consulting Fees (e.g., advisory boards); Deep Brain Innovations, LLC. **W.M. Grill:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Deep Brain Innovations, LLC.

527.05 **E.Y. Pioli:** A. Employment/Salary (full or part-time):; Motac Neuroscience. **Q. Li:** A. Employment/Salary (full or part-time):; Motac Neuroscience. **J. Yang:** A. Employment/Salary (full or part-time):; Motac Cognition. **A. Crossman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Motac Holding. **E. Bezard:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Motac Holding. **J.S. Schneider:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Motac Cognition.

527.06 **D.P. Taylor:** A. Employment/Salary (full or part-time):; SK Life Science. **E. Graham:** A. Employment/Salary (full or part-time):; SK Life Science. **A. Pegan:** A. Employment/Salary (full or part-time):; SK Life Science. **H.W. Kim:** A. Employment/Salary (full or part-time):; SK Life Science. **W. Han:** A. Employment/Salary (full or part-time):; SK Life Science.

527.08 **R.J. DiTota:** A. Employment/Salary (full or part-time):; Medtronic.

527.10 **D. Weiss:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Daniel Weiss is supported by a research grant from the German Research Council (DFG; WE5375-1/1).

ABSTRACT NUMBER STATEMENT

527.15 **A.R. Crossman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Motac Holding. **E. Pioli:** A. Employment/Salary (full or part-time):; Motac Neuroscience. **Q. Li:** A. Employment/Salary (full or part-time):; Motac Neuroscience. **J.S. Schneider:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Motac Cognition. **E. Bezard:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Motac Holding.

528.03 **L.M. Stanek:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **P.S. Sardi:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **B. Mastis:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **A. Richards:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **S.H. Cheng:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company. **L.S. Shihabuddin:** A. Employment/Salary (full or part-time):; Genzyme, a Sanofi Company.

528.07 &tab;**The Disclosure Block has exceeded its maximum limit. Please call Tech support at (217) 398-1792 for more information.**

528.13 **C.F. Ferris:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging, Animal Imaging Research. **S. Toddes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Animal Imaging Research. **P. Kulkarni:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging. **M. Nedelman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging.

528.14 **A. Sanchez:** Other; National Institute of Cardiology - Ignacio Chávez. **D. Gonzalez:** Other; THE NATIONAL INSTITUTE OF NEUROLOGY AND NEUROSURGERY. **S. Montes:** Other; THE NATIONAL INSTITUTE OF NEUROLOGY AND NEUROSURGERY. **M. El Hafidi Bentlakder:** Other; The National Institute of Cardiology - Ignacio Chávez. **E. Soria:** Other; National Institute of Cardiology - Ignacio Chávez. **A. Zamorano:** Other; IPN. **F. Pérez:** Other; NATIONAL INSTITUTE OF NEUROLOGY AND NEUROSURGERY.

528.15 **L. Yu-Taeger:** A. Employment/Salary (full or part-time):; CHDI Foundation. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); CHDI Foundation. **H.P. Nguyen:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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.

ABSTRACT NUMBER STATEMENT

528.17 **G.C. Tombaugh:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. Gelman:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **A. Bradaia:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **K. Wadel:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **V. Gardes:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **C. Touller:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **A. Sers:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **A. Ghavami:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **B. Buisson:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CHDI Foundation. **G. Bates:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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. **M. Mielcarek:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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.

530.07 **K. Tanaka:** A. Employment/Salary (full or part-time):; Taiho Pharmaceutical Co., ltd. **K. Miyoshi:** A. Employment/Salary (full or part-time):; Taiho Pharmaceutical Co., ltd. **Y. Hayashi:** A. Employment/Salary (full or part-time):; Taiho Pharmaceutical Co., ltd. **E. Sasaki:** A. Employment/Salary (full or part-time):; Taiho Pharmaceutical Co., ltd.

530.19 **P.A. Caviedes:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); IP protection for RCMH cell line.

ABSTRACT NUMBER STATEMENT

531.17 **T. Hanania:** A. Employment/Salary (full or part-time):; PsychoGenics Inc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Partnership with ROCHE. **P. Kabitzke:** A. Employment/Salary (full or part-time):; PSYCHOGENICS. **M. Mazella:** A. Employment/Salary (full or part-time):; PSYCHOGENICS. **I. Filipov:** A. Employment/Salary (full or part-time):; psychogenics. **V. Alexandrov:** A. Employment/Salary (full or part-time):; Psychogenics. **D. Brunner:** A. Employment/Salary (full or part-time):; Psychogenics. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Psychogenics, AMylin.

534.03 **I.A.A. Pérès:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; GW Pharmaceuticals. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GW Pharmaceuticals. **R. Hadid:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; GW Pharmaceuticals. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GW Pharmaceuticals. **N. Amada:** A. Employment/Salary (full or part-time):; Otsuka Pharmaceutical. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; GW Pharmaceuticals. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GW Pharmaceuticals. **C.L. Hill:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; GW Pharmaceuticals. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GW Pharmaceuticals. **A.J. Hill:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; GW Pharmaceuticals. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GW Pharmaceuticals. **C.M. Williams:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; GW Pharmaceuticals. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GW Pharmaceuticals. **B.J. Whalley:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; GW Pharmaceuticals. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); GW Pharmaceuticals.

ABSTRACT NUMBER STATEMENT

534.07 **L.K. Friedman:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; GalxoSmithKline. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); GalxoSmithKline.

534.09 **H.S. White:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CounterACT Program, National Institutes of Health Office of the Director (NIH OD), and the National Institute of Neurological Disorders and Stroke (NINDS), Contract # HHSN271201100029C.

534.10 **T.D. Hill:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Drugs supplied by GW Pharmaceuticals plc. **M. Duncan:** A. Employment/Salary (full or part-time):; GW Pharmaceuticals plc. **C.M. Williams:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Grant from GW Pharmaceuticals plc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Drugs supplied by GW Pharmaceuticals plc. **A.J. Hill:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Drugs supplied by GW Pharmaceuticals plc. **B.J. Whalley:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Grant from GW Pharmaceuticals plc. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Drugs supplied by GW Pharmaceuticals plc.

534.15 **V. Mishra:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); MegaResveratrol supplied Resveratrol for this study for free.

534.20 **T. Rau:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sinapis Pharma. **D.J. Poulsen:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Sinapis Pharma.

535.07 **M. Alonso:** Other; Neurosurgery. **L. Rocha:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); research. **S. Orozco:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); research. **V. Campos:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); research. **F. Fernandez:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); research.

535.20 **W. Chen:** A. Employment/Salary (full or part-time):; Yale University.

535.25 **S. White:** A. Employment/Salary (full or part-time):; NeuroAdjuvants.

536.05 **A.E. Hernan:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Questcor Pharmaceuticals. **G.L. Holmes:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Questcor Pharmaceuticals.

ABSTRACT NUMBER STATEMENT

537.08 **A. Pancioli:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); study drug for CLEAR-ER from Merck and Genentech. **J.P. Broderick:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Genentech Inc. (Supplier of alteplase for NINDS-funded CLEARER, IMS III trials), Novo Nordisk (Supplier of drug for NINDS-funded STOP-IT trial, Schering Plough supplies drug for NINDS-funded CLEARER Trial. Other; $65,000 educational grant to the American Academy of Neurology for 2012 annual meeting program 2AC.007 “What’s in a Stroke Center: Members, Services, Organization and Roles” which I directed.

538.02 **S.B. Powell:** 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.; Servier.

538.06 **I. Fraser:** A. Employment/Salary (full or part-time):; Jassen. **L. Aluisio:** A. Employment/Salary (full or part-time):; Jassen. **P. Bonaventure:** A. Employment/Salary (full or part-time):; Jassen. **B. Savall:** A. Employment/Salary (full or part-time):; Jassen. **M. Letavic:** A. Employment/Salary (full or part-time):; Jassen. **N. Carruthers:** A. Employment/Salary (full or part-time):; Jassen. **T. Lovenberg:** A. Employment/Salary (full or part-time):; Jassen. **A. Bhattacharya:** A. Employment/Salary (full or part-time):; Jassen.

538.18 **M.E. Harrington:** F. Consulting Fees (e.g., advisory boards); Merz Pharmaceuticals GmbH.

538.24 **A. Choudhary:** A. Employment/Salary (full or part-time):; CSIR-Institute of Genomics and Integrative Biology. **R. Roshan:** A. Employment/Salary (full or part-time):; CSIR-Institute of Genomics and Integrative Biology. **K. Soni:** A. Employment/Salary (full or part-time):; CSIR-Institute of Genomics and Integrative Biology. **A.R. Singh:** A. Employment/Salary (full or part-time):; CSIR-Institute of Genomics and Integrative Biology. **S. Shridhar:** A. Employment/Salary (full or part-time):; CSIR-Institute of Genomics and Integrative Biology. **R. Dey:** A. Employment/Salary (full or part-time):; CSIR-Institute of Genomics and Integrative Biology. **S. Sivasubbu:** A. Employment/Salary (full or part-time):; CSIR-Institute of Genomics and Integrative Biology. **B. Pillai:** A. Employment/Salary (full or part-time):; CSIR-Institute of Genomics and Integrative Biology.

539.03 **Lind:** A. Employment/Salary (full or part-time):; Uppsala Berzelii Technology Centre for Neruodiagnostics, Uppsala Unviersity. **M. Wetterhall:** A. Employment/Salary (full or part-time):; Uppsala Berzelii Technology Centre for Neruodiagnostics. **T. Gordh:** A. Employment/Salary (full or part-time):; Uppsala Berzelii Technology Centre for Neruodiagnostics.

539.05 **T. Moeller-Bertram:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; AVACEN Inc.

ABSTRACT NUMBER STATEMENT

540.01 **P. Giaccobe:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Brain Cells Inc., Clera, GSK, St. Jude Medical, Atra-Zeneca, BMS. F. Consulting Fees (e.g., advisory boards); Eli Lilly. **J. Downar:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Lundbuck Canada.

540.03 **G. Ghisleni:** A. Employment/Salary (full or part-time):; Universidade Católica de Pelotas.

540.06 **J. Downar:** Other; Lundbeck Canada. **P. Giacobbe:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Brain Cells Inc., Clera, GSK, St. Jude Medical. F. Consulting Fees (e.g., advisory boards); Eli Lilly. Other; Astra-Zeneca, BMS, Pfizer, Eli Lilly, St. Jude Medical. **S. Kennedy:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Astra Zeneca, Bristol-Myers Squibb, Brain Cells Inc., Clera, Eli Lilly, GlaxoSmithKline, Lundbeck, St Jude Medical. F. Consulting Fees (e.g., advisory boards); Astra Zeneca, Eli Lilly, Lundbeck, Pfizer, Servier, St Jude Medical, Spimaco. Other; Servier, Eli Lilly, Spimaco, Bristol-Myers Squibb, Astra Zeneca, Lundbeck. **A. Flint:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lundbeck Canada. Other; Janssen-Ortho, Lundbeck Canada, Pfizer Canada.

540.10 **E.F. Coccaro:** Other; on Scientific Advisory Board of Azevan Pharmaceuticals, Inc. **R. Lee:** Other; Past recipient of a research grant from Azevan Pharmaceuticals, Inc.

540.14 **M. Rasenick:** A. Employment/Salary (full or part-time):; University of Illinois at Chicago. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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, Veterans Administration, Eli Lilly. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Pax Neuroscience.

540.15 **C.A. Zarate:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-inventor on a patent application for the use of ketamine and its metabolites in MDD. Dr. Zarate has assigned his rights in the patent to the US government but will share a percentage of royalties.

541.08 **S.H. Scharf:** A. Employment/Salary (full or part-time):; Full-time Employee at Roche. **I. Sillaber:** A. Employment/Salary (full or part-time):; Full-time Employee at Phenoquest.

541.09 **J.E. Van der Harst:** A. Employment/Salary (full or part-time):; Delta Phenomics B.V.

541.21 **A. Frazer:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cyberonics Inc. F. Consulting Fees (e.g., advisory boards); Lundbeck, Eli Lilly & Co., Takeda Pharmaceuticals International, Inc, Cyberonics Inc.

541.26 **G.E. Hodes:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Johnson & Johnson. **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.; Johnson & Johnson.

ABSTRACT NUMBER STATEMENT

542.07 **Q. Li:** F. Consulting Fees (e.g., advisory boards); Motac Neuroscience Ltd. **E. Bezard:** A. Employment/Salary (full or part-time):; Motac Neuroscience Ltd.

542.10 **G.E. Hodes:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Johnson & Johnson. **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.; Johnson & Johnson.

542.16 **S.M. Strittmatter:** Other; Cofounder of Axerion Therapeutics, seeking to develop PrP- and NgR- based therapeutics.

542.23 **J. Pineda:** A. Employment/Salary (full or part-time):; Universidad Autonoma de Yucatan. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); CONACYT CB2011-167436Q.

543.21 **E. Merlo-Pich:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche Ldt, GlaxoSmithKline.

544.26 **G.F. Koob:** F. Consulting Fees (e.g., advisory boards); Addex Pharmaceuticals, Arkeo Pharmaceuticals, Embera NeuroTherapeutics, Psychogenics.

544.29 **N. Pross:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Biotrial. **N. Fauchoux:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Biotrial. **H. Hadjduchova:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; D&A Pharma. **C. Denot:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Biotrial. **A. Patat:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Biotrial. **P. Vivet:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; D&A Pharma.

545.01 **X.M. Xie:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AfaSci, Inc. Redwood City, CA,.

545.23 **S.M. Goebel-Goody:** A. Employment/Salary (full or part-time):; Pfizer, Inc. **E. Dunn-Sims:** A. Employment/Salary (full or part-time):; Pfizer, Inc. **D.B. Horton:** A. Employment/Salary (full or part-time):; Pfizer, Inc. **A. Rosado:** A. Employment/Salary (full or part-time):; Pfizer, Inc. **A. Foote:** A. Employment/Salary (full or part-time):; Pfizer, Inc. **C. Tyszkiewicz:** A. Employment/Salary (full or part-time):; Pfizer, Inc. **J.K. DaSilva:** A. Employment/Salary (full or part-time):; Pfizer, Inc. **N. Nawreen:** A. Employment/Salary (full or part-time):; Pfizer, Inc. **A.N. Mead:** A. Employment/Salary (full or part-time):; Pfizer, Inc.

ABSTRACT NUMBER STATEMENT

545.26 **E.D. Levin:** Other; Patent pending, Duke University. **A.H. Rezvani:** Other; Patend Pending, Duke University. **Y. Xiao:** Other; Patent Pending, Georgetown University. **K.J. Kellar:** Other; Patent pending, Georgetown University. **V.M. Yenugonda:** Other; Patent pending. **M. Paige:** Other; Patent pending, Georgetown. **M. Brown:** Other; Patent pending, Georgetown University.

546.11 **J.T. Coyle:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); A patent owned by Massachusetts General Hospital for the use of D-serine as a treatment for serious mental illness could yield royalties. F. Consulting Fees (e.g., advisory boards); Abbott, Jansen Pharmaceutical, Puretech, En Vivo.

546.18 **A. White:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Religen Corporation.

546.28 **Y. Peng:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Texas Norman Hackerman Advanced Research Program (003656-0071-2009) and TxMRC Grant.

547.11 **A.L. Halberstadt:** 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.; Brain & Behavior Research Foundation. **S.B. Powell:** A. Employment/Salary (full or part-time):; UCSD. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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, NIMH, and the U.S. Veteran's Administration VISN 22 Mental Illness Research, Education, and Clinical Center (MIRECC) and Center of Excellence in Stress and Mental Health (CESAMH). **M.A. Geyer:** A. Employment/Salary (full or part-time):; UCSD. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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, NIDA, NIMH, and the U.S. Veteran's Administration VISN 22 Mental Illness Research, Education, and Clinical Center. 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, Acadia, Addex, Cerca, Lundbeck, Merck, Neurocrine, Omeros, Takeda, Teva.

550.20 **F.R. Loayza:** A. Employment/Salary (full or part-time):; 3800.

553.12 **J. Lee:** A. Employment/Salary (full or part-time):; full. **J. Shin:** A. Employment/Salary (full or part-time):; student. **S. Paik:** A. Employment/Salary (full or part-time):; full. **C. Yeum:** A. Employment/Salary (full or part-time):; full. **G. Chae:** A. Employment/Salary (full or part-time):; full. **I. Kim:** A. Employment/Salary (full or part-time):; full. **M. Chun:** A. Employment/Salary (full or part-time):; full. **S. Oh:** A. Employment/Salary (full or part-time):; full.

ABSTRACT NUMBER STATEMENT

554.08 **C. Pfeffer:** A. Employment/Salary (full or part-time):; HHMI/UCSD. **M. Xue:** A. Employment/Salary (full or part-time):; UCSD. **M. He:** A. Employment/Salary (full or part-time):; Cold Spring Harbor Laboratory. **Z. Huang:** A. Employment/Salary (full or part-time):; Cold Spring Harbor Laboratory. **M. Scanziani:** A. Employment/Salary (full or part-time):; HHMI/UCSD.

556.13 **Sumalla:** A. Employment/Salary (full or part-time):; NEUROSCIENCE TECHNOLOGIES. **C. Gias:** A. Employment/Salary (full or part-time):; Neuroscience Technologies. **R. Sola:** A. Employment/Salary (full or part-time):; Neuroscience Technologies. **E. Garcia:** A. Employment/Salary (full or part-time):; Neuroscience Technologies. **M. Jones:** A. Employment/Salary (full or part-time):; Neuroscience Technologies. **J. Serra:** A. Employment/Salary (full or part-time):; Neuroscience Technologies.

557.02 **A.G. Machado:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Office of Director, NIH. Grant number: 1DP2OD006469-01.

558.05 **C.L. Towne:** A. Employment/Salary (full or part-time):; Circuit Therapeutics. **K. Deisseroth:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Circuit Therapeutics. F. Consulting Fees (e.g., advisory boards); Circuit Therapeutics. **S.L. Delp:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Circuit Therapeutics. F. Consulting Fees (e.g., advisory boards); Circuit Therapeutics.

558.11 **S.K. Joshi:** A. Employment/Salary (full or part-time):; AbbVie, Inc. **C. Zhu:** A. Employment/Salary (full or part-time):; AbbVie, Inc. **L. Lewis:** A. Employment/Salary (full or part-time):; AbbVie Inc. **C. Zhong:** A. Employment/Salary (full or part-time):; AbbVie Inc. **D. Gauvin:** A. Employment/Salary (full or part-time):; AbbVie Inc. **J. Mikusa:** A. Employment/Salary (full or part-time):; AbbVie Inc. **C. Zhan:** A. Employment/Salary (full or part-time):; AbbVie Inc. **C. Kalvass:** A. Employment/Salary (full or part-time):; AbbVie Inc. **A. Bannon:** A. Employment/Salary (full or part-time):; AbbVie Inc.

563.01 **S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); BKIN Technologies.

563.03 **S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-founder and creator of KINARM.

563.04 **S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); founder and creator of the KINARM.

563.05 **S.H. Scott:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Founder and creator of KINARM.

563.16 **W.D. Byblow:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Named Inventor on Patent for Training Device.

563.19 **C. Lopez-Ortiz:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Cerebral Pasly International Research Foundation.

ABSTRACT NUMBER STATEMENT

567.07 **S. Negi:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Blackrock Microsystems. **F. Solzbacher:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Blackrock Microsystems.

567.11 **D.R. Merrill:** A. Employment/Salary (full or part-time):; Ripple. **R. Askin:** A. Employment/Salary (full or part-time):; Ripple. **C.F. Smith:** A. Employment/Salary (full or part-time):; Ripple. **R.E. Madsen:** A. Employment/Salary (full or part-time):; Ripple. **D. McDonnall:** A. Employment/Salary (full or part-time):; Ripple. **K.S. Guillory:** A. Employment/Salary (full or part-time):; Ripple.

567.13 **R. Harrison:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Intan Technologies, LLC. **F. Solzbacher:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Blackrock Microsystems.

568.14 **R.J. Seeley:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ethicon Endosurgery. F. Consulting Fees (e.g., advisory boards); Ethicon Endosurgery. **S.C. Benoit:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Ethicon Endosurgery.

569.03 **E.T. Bullmore:** A. Employment/Salary (full or part-time):; GlaxoSmithKline.

571.14 **J.C. Francken:** A. Employment/Salary (full or part-time):; Donders Institute for Brain, Cognition and Behavior, Radboud University Nijmegen, Nijmegen, The Netherlands. **P. Kok:** A. Employment/Salary (full or part-time):; Donders Institute For Brain, Cognition and Behavior, Radboud University Nijmegen. **P. Hagoort:** A. Employment/Salary (full or part-time):; Donders Institute For Brain, Cognition and Behavior, Radboud University Nijmegen. **F.P. De Lange:** A. Employment/Salary (full or part-time):; Donders Institute for Brain, Cognition and Behavior, Radboud University Nijmegen, Nijmegen, The Netherlands.

572.22 **S.A. Raskin:** Other; Author of clinical measure.

573.02 **L. Ahonen:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Valio Ltd.

573.23 **J.J. Pekar:** A. Employment/Salary (full or part-time):; Philips.

575.17 **A.R. Abela:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CFI 14033, CIHR 102507. **Y. Chudasama:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CFI 14033, CIHR 102507.

576.09 **E.P. Lebois:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Vanderbuilt University.

576.10 **E.P. Lebois:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Vanderbilt University.

ABSTRACT NUMBER STATEMENT

577.18 **D.G. Wheeler:** 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. **C. O'Carroll:** 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. **R. Petroski:** A. Employment/Salary (full or part-time):; Dart Neuroscience. **E. Massari:** A. Employment/Salary (full or part-time):; Dart Neuroscience. **R. Scott:** A. Employment/Salary (full or part-time):; Dart Neuroscience. **T. Tully:** A. Employment/Salary (full or part-time):; Dart Neuroscience. **M. Peters:** A. Employment/Salary (full or part-time):; Dart Neuroscience.

579.09 **J.M. Gulley:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Abbott Laboratories. **J.M. Juraska:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Abbott Laboratories.

579.14 **M. Weber:** A. Employment/Salary (full or part-time):; Genentech Inc. **T. Wu:** A. Employment/Salary (full or part-time):; Genentech Inc. **S.L. Dominguez:** A. Employment/Salary (full or part-time):; Genentech Inc. **H. Lin:** A. Employment/Salary (full or part-time):; Genentech Inc. **H. Ngu:** A. Employment/Salary (full or part-time):; Genentech Inc. **K. Scearce-Levie:** A. Employment/Salary (full or part-time):; Genentech Inc.

580.03 **M.I. Torres-Flores:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Palsgaard Industri de Mexico, S. de R.L de CV. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Palsgaard Industri de Mexico, S. de R.L de CV. **C. Férnandez-Aguilar:** A. Employment/Salary (full or part-time):; Palsgaard Industri de Mexico, S. de R.L de CV. **A. Ramírez-Ramos:** A. Employment/Salary (full or part-time):; Palsgaard Industri de Mexico, S. de R.L de CV. **E. Portillo-Navarro:** A. Employment/Salary (full or part-time):; Palsgaard Industri de Mexico, S. de R.L de CV. **M. Ramírez-Flores:** A. Employment/Salary (full or part-time):; Palsgaard Industri de Mexico, S. de R.L de CV. **R. Haro Valencia:** A. Employment/Salary (full or part-time):; Palsgaard Industri de Mexico, S. de R.L de CV. **M. Apodaca-Aragón:** A. Employment/Salary (full or part-time):; Palsgaard Industri de Mexico, S. de R.L de CV. **E. Sánchez:** A. Employment/Salary (full or part-time):; Palsgaard Industri de Mexico, S. de R.L de CV. **O. García:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Palsgaard Industri de Mexico, S. de R.L de CV.

ABSTRACT NUMBER STATEMENT

580.08 **J.F. Bastlund:** A. Employment/Salary (full or part-time):; H.Lundbeck A/S. **C. Bundgaard:** A. Employment/Salary (full or part-time):; H. Lundbeck A/S. **K. Dekermendjian:** A. Employment/Salary (full or part-time):; H. Lundbeck A/S. **R.L. Papke:** F. Consulting Fees (e.g., advisory boards); Consulting for H. Lundbeck A/S. **J.P. Redrobe:** A. Employment/Salary (full or part-time):; H. Lundbeck A/S. **K. Frederiksen:** A. Employment/Salary (full or part-time):; H. Lundbeck A/S. **J. Eskildsen:** A. Employment/Salary (full or part-time):; H. Lundbeck A/S.

580.20 **J.P. Kesby:** A. Employment/Salary (full or part-time):; University of California San Diego. **A. Markou:** A. Employment/Salary (full or part-time):; University of California San Diego. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Bristol-Myers-Squibb. **S. Semenova:** 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.; Translational Methamphetamine AIDS Research Center NIDA grant P50 DA26306.

581.05 **P. Gombköto:** Other; The Rosztoczy Fundation.

582.09 **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.

585.04 **J. Svensson Dalén:** A. Employment/Salary (full or part-time):; Cellectricon AB. **A. Karlsson:** A. Employment/Salary (full or part-time):; Cellectricon AB. **M. Karlsson:** A. Employment/Salary (full or part-time):; Cellectricon AB. **S. Aspengren:** A. Employment/Salary (full or part-time):; Cellectricon AB. **P. Karila:** A. Employment/Salary (full or part-time):; Cellectricon AB.

585.13 **S.R. Schultz:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Scientifica Ltd.

586.14 **G.J. Brewer:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); BrainBits LLC.

586.16 **R. Gil-Da-Costa:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroVerse, Inc. **T.P. Coleman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); NeuroVerse, Inc.

586.25 **M. Striz:** A. Employment/Salary (full or part-time):; Signal Solutions, LLC. **R. Gooch:** A. Employment/Salary (full or part-time):; Signal Solutions, LLC. **K.D. Donohue:** A. Employment/Salary (full or part-time):; Signal Solutions, LLC. **B.F. O'Hara:** A. Employment/Salary (full or part-time):; Signal Solutions, LLC.

588.17 **J. Chang:** A. Employment/Salary (full or part-time):; University of Massachusetts Medical School, Wyss Institute for Biologically Inspired Engineering at Harvard University. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH. **D. Paydarfar:** A. Employment/Salary (full or part-time):; University of Massachusetts Medical School, Wyss Institute of Biologically Inspired Engineering at Harvard University.

ABSTRACT NUMBER STATEMENT

588.18 **L. Ko:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NSC-101-2911-I-009-101, Taiwan National Science Council I-RiCE Program.

589 **H. Song:** F. Consulting Fees (e.g., advisory boards); Roche.

591.03 **M. A. Nitsche:** Other; Advisory Board of Neuroelectronics.

591.04 **M. Bikson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Soterix Medical Inc.

597.08 **B.A. Barres:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Co-founder and Director of Annexon, Inc.

597.11 **K.N. Green:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Plexxikon Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock Options in Sonexa. F. Consulting Fees (e.g., advisory boards); Genescient. **B. Wong:** A. Employment/Salary (full or part-time):; Plexxikon Inc. **H. Nguyen:** A. Employment/Salary (full or part-time):; Plexxikon Inc. **B.L. West:** A. Employment/Salary (full or part-time):; Plexxikon Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Plexxikon Inc.

598.03 **R. Kayed:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Rakez Kayed is the founder of ConImm Inc. and has patent applications on the compositions and methods related to tau oligomers and antibodies.

598.07 **I. Griswold-Prenner:** A. Employment/Salary (full or part-time):; iPierian, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian, Inc. **S. Hussain:** A. Employment/Salary (full or part-time):; iPierian, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian, Inc. **T. Byun:** A. Employment/Salary (full or part-time):; iPierian, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian, Inc. **J. Bright:** A. Employment/Salary (full or part-time):; iPierian, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian, Inc. **S. Tom:** A. Employment/Salary (full or part-time):; iPierian, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian, Inc. **B. Cooper:** A. Employment/Salary (full or part-time):; iPierian, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian, Inc. **N. Stagliano:** A. Employment/Salary (full or part-time):; iPierian, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian, Inc. **G. Parry:** A. Employment/Salary (full or part-time):; iPierian, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian, Inc. **S. Wright:** A. Employment/Salary (full or part-time):; iPierian, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); iPierian, Inc.

ABSTRACT NUMBER STATEMENT

598.11 **A. Muhs:** A. Employment/Salary (full or part-time):; AC Immune SA. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); AC Immune SA.

599.02 **Y. Liang:** A. Employment/Salary (full or part-time):; University College London. **Y. Pertzov:** A. Employment/Salary (full or part-time):; University College London,. **S. Crutch:** A. Employment/Salary (full or part-time):; University College London. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Alzheimer's Research UK. **N. Fox:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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 Reserach Council, Alzheimer's research UK. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); National Institute for Health Queen Square Dementia Brain Research Unit. **M. Husain:** A. Employment/Salary (full or part-time):; University of Oxford. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; The Wellcome Trust, Medical Research Council.

599.04 **A.C. LeBlanc:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Merck, Sharp, & Dhome.

599.09 **W.H. Drinkenburg:** A. Employment/Salary (full or part-time):; Janssen Research & Development. **J. Kelley:** A. Employment/Salary (full or part-time):; Janssen R&D. **R. Biermans:** A. Employment/Salary (full or part-time):; Janssen R&D. **L. Raeymaekers:** A. Employment/Salary (full or part-time):; Janssen R&D. **A. Ahnaou:** A. Employment/Salary (full or part-time):; Janssen R&D.

600.03 **T.L. Kukar:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Pfizer supplied drug for *in vitro* studies.

603.03 **E.B. Torres:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent pending.

603.05 **H.P. Sims-Williams:** A. Employment/Salary (full or part-time):; University of Bristol, North Bristol NHS Trust, Manchester Academic Health Science Centre (MAHSC). B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Wellcome Trust Institutional Strategic Support Fund Recipient. **P.S. Talbot:** A. Employment/Salary (full or part-time):; Manchester Mental Health and Social Care Trust. **N.K. Patel:** F. Consulting Fees (e.g., advisory boards); Boston Scientific Medical Advisory Board. **A.E. Pickering:** A. Employment/Salary (full or part-time):; University of Bristol, Wellcome Trust.

603.06 **D.J. Clauw:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Pfizer Inc., Forest Laboratories, Nuvo Pharmaceuticals. F. Consulting Fees (e.g., advisory boards); Lilly Lab, Purdue Lab, Pfizer Inc., Forest Laboratories, Nuvo Pharmaceuticals.

ABSTRACT NUMBER STATEMENT

607.01 **S. Joppé:** Other; Center of excellence in neurosciences of the Université de Montréal (CENUM), CNS Research Group (GRSNC). **A. Aumont:** Other; Center of excellence in neurosciences of the Université de Montréal (CENUM), CNS Research Group (GRSNC). **K.J.L. Fernandes:** Other; Center of excellence in neurosciences of the Université de Montréal (CENUM), CNS Research Group (GRSNC).

607.17 **L.J. Levros:** Other; the Center of excellence in neurosciences of the Université de Montréal (CENUM), the CNS Research Group (GRSNC). **S.E. Joppé:** Other; the Center of excellence in neurosciences of the Université de Montréal (CENUM), the CNS Research Group (GRSNC). **A. Aumont:** Other; the Center of excellence in neurosciences of the Université de Montréal (CENUM), the CNS Research Group (GRSNC). **M. Liao:** Other; the Center of excellence in neurosciences of the Université de Montréal (CENUM), the CNS Research Group (GRSNC). **P. Drapeau:** Other; the Center of excellence in neurosciences of the Université de Montréal (CENUM), the CNS Research Group (GRSNC). **K.J. Fernandes:** Other; the Center of excellence in neurosciences of the Université de Montréal (CENUM), the CNS Research Group (GRSNC).

608.05 **G. Shetty:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); MegaResveratrol supplied Resveratrol for this study for free.

611.01 **T. Zheng:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Mead Johnson Nutrition. **C. Kuang:** A. Employment/Salary (full or part-time):; Mead Johnson Nutrition. **Y. Xiao:** A. Employment/Salary (full or part-time):; Mead Johnson Nutrition. **D. Hondmann:** A. Employment/Salary (full or part-time):; Mead Johnson Nutrition.

612.08 **Q. Chen:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma. **S. Miyake:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma. **C.M. Wynn:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma. **N.M. Walton:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma. **R. Shin:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma. **J.H. Kogan:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma. **C.L. Heusner:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma. **A.K. Gross:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma. **K. Tajinda:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma. **K. Tamura:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma. **M. Matsumoto:** A. Employment/Salary (full or part-time):; Astellas Research Institute of America LLC, Astellas Pharma.

612.15 **S. Ward:** A. Employment/Salary (full or part-time):; University of Sussex.

612.16 **M. Watanabe:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; CREST, Japan Science and Technology Agency, Saitama 332-0012, Japan.

ABSTRACT NUMBER STATEMENT

613.16 **D.C. Bertrand:** A. Employment/Salary (full or part-time):; HiQScreen. **P. Janssen:** A. Employment/Salary (full or part-time):; Shire-Movetis. **E. Neveu:** A. Employment/Salary (full or part-time):; HiQScreen. **J. De Maeyer:** A. Employment/Salary (full or part-time):; shire-Movetis.

614.01 **S.R. Stauffer:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb, Johnson & Johnson. **C.K. Jones:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb, Johnson & Johnson. **C.M. Niswender:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb, Johnson & Johnson. **C.W. Lindsley:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb, Johnson & Johnson. **P.J. Conn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb, Johnson & Johnson.

614.02 **J.S. Daniels:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; AstraZeneca, Bristol-Meyers Squibb. **P.J. Conn:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; AstraZeneca, Bristol-Meyers Squibb. **C.W. Lindsley:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; AstraZeneca, Bristol-Meyers Squibb.

614.03 **J.S. Daniels:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb. **C.W. Lindsley:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb. **P.J. Conn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb.

614.04 **P.J. Conn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Bristol-Myers Squibb, AstraZeneca. **C.M. Niswender:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb.

614.05 **P. Conn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb.

614.06 **C.M. Niswender:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb. **J.S. Daniels:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb. **C.K. Jones:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb. **C.W. Lindsley:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb. **P.J. Conn:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AstraZeneca, Bristol-Myers Squibb.

ABSTRACT NUMBER | STATEMENT

614.07 **L.W. Hardy:** A. Employment/Salary (full or part-time):; Sunovion Pharmaceuticals Inc. **M.L.R. Heffernan:** A. Employment/Salary (full or part-time):; Sunovion Pharmaceuticals Inc. **F. Wu:** A. Employment/Salary (full or part-time):; Sunovion Pharmaceuticals Inc. **L. Saraswat:** A. Employment/Salary (full or part-time):; Sunovion Pharmaceuticals Inc. **M. Quinton:** A. Employment/Salary (full or part-time):; Sunovion Pharmaceuticals Inc. **U. Campbell:** A. Employment/Salary (full or part-time):; Sunovion Pharmaceuticals Inc. **R. Lew:** A. Employment/Salary (full or part-time):; Sunovion Pharmaceuticals Inc. **K. Spear:** A. Employment/Salary (full or part-time):; Sunovion Pharmaceuticals Inc. **K. Koblan:** A. Employment/Salary (full or part-time):; Sunovion Pharmaceuticals Inc. **T. Large:** A. Employment/Salary (full or part-time):; Sunovion Pharmaceuticals Inc.

616.04 **G. Perea:** A. Employment/Salary (full or part-time):; Picower Institute for Learning and Memory. MIT. Cambridge, USA.

616.11 **P. Young:** D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); speakers´s bureaus, GENZYME, UCB, HuL. F. Consulting Fees (e.g., advisory boards); advisory board, GENZYME, UCB.

618.01 **E.D. Roberson:** Other; Dr. Roberson has received royalties on intellectual property relating to this project.

618.02 **E.D. Roberson:** Other; Dr. Roberson has received royalties on intellectual property relating to this project.

618.04 **S.M. Fitzjohn:** A. Employment/Salary (full or part-time):; Eli Lilly and Co. **R.G. Vivier:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **K. Garn:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **E. McNaughton:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **M.V. Kopanitsa:** A. Employment/Salary (full or part-time):; Synome Ltd. **C. Cella:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **J. McArthur:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **T.K. Murray:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **M.A. Ward:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **S.G.N. Grant:** A. Employment/Salary (full or part-time):; Synome Ltd. **M.L. Hutton:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **M.J. O'Neill:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **J.T. Isaac:** A. Employment/Salary (full or part-time):; Eli Lilly & Co.

618.05 **A.J. Harper:** A. Employment/Salary (full or part-time):; Eli Lilly & Co Ltd. **S. Billa:** A. Employment/Salary (full or part-time):; Eli Lilly & Co.Ltd. **S. Potts:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. Ltd. **J.C. Richardson:** A. Employment/Salary (full or part-time):; GlaxoSmithKline & Co. Ltd. **T.K. Murray:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. Ltd. **M.J. O'Neill:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. Ltd. **M. Hutton:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. Ltd. **S.L. Dix:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. Ltd.

618.06 **J.S. Jackson:** A. Employment/Salary (full or part-time):; Eli Lilly. **Z. Ahmed:** A. Employment/Salary (full or part-time):; Eli Lilly. **E. McNaughton:** A. Employment/Salary (full or part-time):; Eli Lilly. **M. Hutton:** A. Employment/Salary (full or part-time):; Eli Lilly. **M.J. O'Neill:** A. Employment/Salary (full or part-time):; Eli Lilly. **J.T. Isaac:** A. Employment/Salary (full or part-time):; Eli Lilly.

ABSTRACT NUMBER | STATEMENT

618.07 **S. Dix:** A. Employment/Salary (full or part-time):; Eli Lilly. **M.M. Albasser:** A. Employment/Salary (full or part-time):; Eli Lilly. **M.A. Ward:** A. Employment/Salary (full or part-time):; Eli Lilly. **E.F. McNaughton:** A. Employment/Salary (full or part-time):; Eli Lilly. **T.K. Murray:** A. Employment/Salary (full or part-time):; Eli Lilly. **M.L. Hutton:** A. Employment/Salary (full or part-time):; Eli Lilly. **M.J. ONeill:** A. Employment/Salary (full or part-time):; Eli Lilly. **K.G. Phillips:** A. Employment/Salary (full or part-time):; Eli Lilly.

618.10 **S. Sankaranarayanan:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Bristol-Myers Squibb. **D. Barten:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **L. Vana:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Bristol-Myers Squibb. **N. Devidze:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **G. Cadelina:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **B. Zhang:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Bristol-Myers Squibb. **N. Hoque:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **M. Nitla:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Bristol-Myers Squibb. **L. Yang:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **L. DeCarr:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **A. Lin:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **S. Keenan:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **B. Snyder:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **G. Hirschfield:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **N. Barrezuetta:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **C. Polson:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **V.S. Rangan:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **A. Cacace:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb. **C.F. Albright:** A. Employment/Salary (full or part-time):; 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. **V.M. 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. **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. **M. Ahlijanian:** A. Employment/Salary (full or part-time):; Bristol-Myers Squibb.

618.13 **J. Cooper:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **Z. Ahmed:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **K. Garn:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **T.K. Murray:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **E. McNaughton:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **M.A. Ward:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **S. Parhizkar:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **A. Cavallini:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **S. Bose:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **M.L. Hutton:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **M.J. Oneill:** A. Employment/Salary (full or part-time):; Eli Lilly & Co.

ABSTRACT NUMBER STATEMENT

618.14 **J. Wolak:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Eli Lilly and Company. **K. Garn:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. **Y. Gibson:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. **D. Ballard:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Eli Lilly and Company. **D.G. Hall:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Eli Lilly and Company. **M. Ward:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Eli Lilly and Company. **E. McNaughton:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. **Z. Ahmed:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. **S. Glover:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Eli Lilly and Company. **M.L. Hutton:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Eli Lilly and Company. **M.J. O'Neill:** A. Employment/Salary (full or part-time):; Eli Lilly and Company. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Eli Lilly and Company.

618.22 **F.P. Zemlan:** A. Employment/Salary (full or part-time):; P2D Biosciences, Inc. **S.P. Gabbita:** A. Employment/Salary (full or part-time):; P2D Biosciences, Inc.

618.23 **W. 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.; Mathew Blurton-Jones.

618.25 **M.J. Burlot:** A. Employment/Salary (full or part-time):; Université Paris Descartes.

618.26 **J. Witton:** A. Employment/Salary (full or part-time):; Pfizer Inc.

619.01 **Y. Joo:** A. Employment/Salary (full or part-time):; full. **K. Chang:** A. Employment/Salary (full or part-time):; full. **S. Lee:** A. Employment/Salary (full or part-time):; full. **Y. Suh:** A. Employment/Salary (full or part-time):; full. **C. Ottmann:** A. Employment/Salary (full or part-time):; full.

619.07 **G. Papiani:** A. Employment/Salary (full or part-time):; Oligomerix, Inc. **P. Lopez:** A. Employment/Salary (full or part-time):; Oligomerix, Inc. **J. Hendrix:** F. Consulting Fees (e.g., advisory boards); Oligomerix, Inc. **E. Davidowitz:** A. Employment/Salary (full or part-time):; Oligomerix, Inc. **J.G. Moe:** A. Employment/Salary (full or part-time):; Oligomerix, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Oligomerix, Inc.

ABSTRACT NUMBER STATEMENT

619.09 **J.R. Jensen:** A. Employment/Salary (full or part-time):; Covance Discovery & Translational Services. **M. Farkaly:** A. Employment/Salary (full or part-time):; Covance Discovery & Translational Services. **W.J. Jessen:** A. Employment/Salary (full or part-time):; Covance Informatics. **E. Eberle:** A. Employment/Salary (full or part-time):; Covance Discovery & Translational Services. **R.L. Martone:** A. Employment/Salary (full or part-time):; Covance Discovery & Translational Service.

619.18 **M. Hashiguchi:** A. Employment/Salary (full or part-time):; Tokyo Medical University.

619.21 **R. Kayed:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Rakez Kayed is the founder of ConImm Inc. and has patent applications on the compositions and methods related to tau oligomers and antibodies.

619.23 **C. Wiessner:** A. Employment/Salary (full or part-time):; Asceneuron S.A. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asceneuron S.A. **D. Graham:** A. Employment/Salary (full or part-time):; EMD Serono. **A. Gray:** A. Employment/Salary (full or part-time):; EMD Serono. **B. Giacomozzi:** A. Employment/Salary (full or part-time):; EMD Serono. **J. Joyce:** A. Employment/Salary (full or part-time):; EMD Serono. **V. Shankar:** A. Employment/Salary (full or part-time):; EMD Serono. **M. Busch:** A. Employment/Salary (full or part-time):; Merck KGaA. **A. Cameron:** A. Employment/Salary (full or part-time):; EMD Serono. **L. Liu-Bujalski:** A. Employment/Salary (full or part-time):; EMD Serono. **H. Yu:** A. Employment/Salary (full or part-time):; EMD Serono. **H. Tian:** A. Employment/Salary (full or part-time):; EMD Serono. **S. Ousson:** A. Employment/Salary (full or part-time):; Asceneuron S.A. **A. Quattropani:** A. Employment/Salary (full or part-time):; Asceneuron S.A. **B. Permanne:** A. Employment/Salary (full or part-time):; Asceneuron S.A. **M. Shearman:** A. Employment/Salary (full or part-time):; EMD Serono. **D. Beher:** A. Employment/Salary (full or part-time):; Asceneuron S.A. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Asceneuron S.A. **H. Hering:** A. Employment/Salary (full or part-time):; EMD Serono.

620.02 **M. Kleinschmidt:** A. Employment/Salary (full or part-time):; Probiodrug AG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Probiodrug AG. **S. Schilling:** A. Employment/Salary (full or part-time):; Probiodrug AG. **H. Demuth:** F. Consulting Fees (e.g., advisory boards); Probiodrug AG. **C.A. Lemere:** F. Consulting Fees (e.g., advisory boards); Probiodrug AG.

620.06 **J. Hettinger:** A. Employment/Salary (full or part-time):; Hope Center for Neurological Disorders, Knight Alzheimer's Disease Research Center.

620.08 **H.U. Demuth:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock options. F. Consulting Fees (e.g., advisory boards); Probiodrug AG. **S.F. Schilling:** A. Employment/Salary (full or part-time):; Probiodrug AG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock options. **U. Heiser:** A. Employment/Salary (full or part-time):; Probiodrug AG. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Stock options.

ABSTRACT NUMBER STATEMENT

620.16 **L.M. Jungbauer:** A. Employment/Salary (full or part-time):; Medtronic, Inc. **K. Hayes:** A. Employment/Salary (full or part-time):; Medtronic, Inc. **B. Kelley:** A. Employment/Salary (full or part-time):; Medtronic, Inc. **C. Roegge:** A. Employment/Salary (full or part-time):; Medtronic, Inc. **T. Keene:** A. Employment/Salary (full or part-time):; Medtronic, Inc. **L. Shafer:** A. Employment/Salary (full or part-time):; Medtronic, Inc. **D. Thakker:** A. Employment/Salary (full or part-time):; Medtronic, Inc.

622.22 **D. Havas:** A. Employment/Salary (full or part-time):; QPS-Austria Gmbh. **D. Amschl:** A. Employment/Salary (full or part-time):; QPS-Austria Gmbh. **J. Neddens:** A. Employment/Salary (full or part-time):; QPS-Austria Gmbh. **M. Windisch:** A. Employment/Salary (full or part-time):; QPS-Austria Gmbh. **B. Hutter-Paier:** A. Employment/Salary (full or part-time):; QPS-Austria Gmbh.

622.25 **G. Bitan:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Gal Bitan is a founder and a shareholder of Clear Therapeutics, Inc. **M. Chesselet:** F. Consulting Fees (e.g., advisory boards); MFC received honoraria and travel reimbursements from the MJFF and is a member of the science advisory board of Clear Therapeutics.

622.26 **N.R. Franich:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Isis Pharmaceuticals. **J.K. Mallajosyula:** A. Employment/Salary (full or part-time):; Isis Pharmaceuticals. **F. Richter:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Isis Pharmaceuticals. **K. de la Rosa:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Isis Pharmaceuticals. **C. 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.; Isis Pharmaceuticals. **S.R. Subramaniam:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Isis Pharmaceuticals. **F. Bennett:** A. Employment/Salary (full or part-time):; Isis Pharmaceuticals. **M. Chesselet:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Isis Pharmaceuticals.

623.03 **S.O. Ahmad:** A. Employment/Salary (full or part-time):; Saint Louis University. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; R21 NS067422, P20 RR016475, P30 HD02528, and the Mabel A. Woodyard Fellowship in Neurodegenerative Disorders.

ABSTRACT NUMBER STATEMENT

623.05 **W.H. Frey:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inventor on patent for intranasal deferoxamine. **L.R. Hanson:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Inventor on patent for intranasal deferoxamine.

624.02 **A.S. Boese:** A. Employment/Salary (full or part-time):; University of Manitoba.

624.05 **B.J. Spencer:** A. Employment/Salary (full or part-time):; NeuroTransit, Inc.

624.07 **S. Hermanson:** A. Employment/Salary (full or part-time):; Life Technologies. **D. Thompson:** A. Employment/Salary (full or part-time):; Life Technologies. **K. Vogel:** A. Employment/Salary (full or part-time):; Life Technologies. **K. Bi:** A. Employment/Salary (full or part-time):; Life Technologies.

625.04 **T.R. Butt:** A. Employment/Salary (full or part-time):; Progenra Inc. **M.J. Eddins:** A. Employment/Salary (full or part-time):; Progenra Inc. **J.P. LaRocque:** A. Employment/Salary (full or part-time):; Progenra Inc. **D.E. Sterner:** A. Employment/Salary (full or part-time):; Progenra Inc. **S. Agarwal:** A. Employment/Salary (full or part-time):; Progenra Inc. **M.P. Kodrasov:** A. Employment/Salary (full or part-time):; Progenra Inc. **M.R. Mattern:** A. Employment/Salary (full or part-time):; Progenra Inc. **B. Nicholson:** A. Employment/Salary (full or part-time):; Progenra Inc.

626.11 **D. Yang:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; This research was supported by grant No. R31-2008-000-10103-0 from the World Class University program of the MEST and the NRF.

626.18 **C.C. Goddeyne:** A. Employment/Salary (full or part-time):; University of Arizona-COM-PHX. **C. Wu:** A. Employment/Salary (full or part-time):; University of Arizona-COM-PHX. **T.R. Anderson:** A. Employment/Salary (full or part-time):; University of Arizona-College of Medicine Phoenix.

626.19 **K. Dekermendjian:** A. Employment/Salary (full or part-time):; Neuroscience Drug Discovery, H. Lundbeck A/S, Copenhagen, Denmark.

627.10 **D.S. Reddy:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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 NS051398.

627.21 **K. Staley:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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.

628.24 **R. Sabbadini:** A. Employment/Salary (full or part-time):; Lpath, Inc. **N.G. Harris:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Lpath, Inc.

629.21 **T.J. Ness:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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 DK51413.

630.02 **S. Lee:** A. Employment/Salary (full or part-time):; University of Tennessee.

631.05 **H. Dou:** A. Employment/Salary (full or part-time):; Texas Tech University Health Sciences Center.

ABSTRACT NUMBER STATEMENT

631.15 **K. Sugaya:** A. Employment/Salary (full or part-time):; University of Central Florida.

632.13 **P.R. Corlett:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Astra Zeneca, Pfizer. F. Consulting Fees (e.g., advisory boards); Johnson & Johnson.

632.25 **A. Markou:** A. Employment/Salary (full or part-time):; University of California San Diego. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; R01 MH62527. C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); Bristol-Myers-Squibb.

632.26 **M. Spedding:** A. Employment/Salary (full or part-time):; Servier Research Institute. **E. Schenker:** A. Employment/Salary (full or part-time):; Servier Research Institute.

634.13 **K.K. Szumlinski:** A. Employment/Salary (full or part-time):; University of California at Santa Barbara. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIAAA.

635.03 **A. Zangen:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); stock options, royalty.

635.10 **G.J. Gatto:** A. Employment/Salary (full or part-time):; Biolucidation, LLC.

639.12 **F. Visser:** A. Employment/Salary (full or part-time):; Philips Healthcare, Best, Netherlands.

641.08 **S. Bang:** A. Employment/Salary (full or part-time):; Pain Research Division, Department of Anesthesiology and Neurobiology, Duke University Medical Center. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIH RO1.

641.14 **R. Grant:** A. Employment/Salary (full or part-time):; AstraZeneca. **D. O'Donnell:** A. Employment/Salary (full or part-time):; AstraZeneca.

641.18 **C.F. Ferris:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging, Animal Imaging Research. **P. Kulkarni:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging. **M. Nedelman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging.

641.20 **S.E. Jordt:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); AMGEN, Thousand Oaks, CA.

643.02 **L. Diop:** A. Employment/Salary (full or part-time):; Probionov, ANS Biotech. **Y. Darbaky:** A. Employment/Salary (full or part-time):; ANS Biotech. **S. Patrier:** A. Employment/Salary (full or part-time):; Probionov. **A. Nivoliez:** A. Employment/Salary (full or part-time):; Probionov. **C. Silberberg:** A. Employment/Salary (full or part-time):; ANS Biotech. **G. Lacoste:** A. Employment/Salary (full or part-time):; Probionov.

ABSTRACT NUMBER STATEMENT

646.13 **F.J. Valero-Cuevas:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); US Patent No. 6,537,075 on some of the technology used, but has no active or pending licensing agreements with any commercial entity.

649.11 **M. El-Gohary:** A. Employment/Salary (full or part-time):; APDM, Inc. **F.B. Horak:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); APDM, Inc.

649.12 **F.B. Horak:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); APDM.

649.14 **F. Horak:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); APDM inc.

649.15 **L. Holmstrom:** F. Consulting Fees (e.g., advisory boards); APDM, Inc. **J. McNames:** F. Consulting Fees (e.g., advisory boards); APDM, Inc. **F.B. Horak:** F. Consulting Fees (e.g., advisory boards); APDM, Inc.

649.16 **F.B. Horak:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); OHSU and Dr. Horak have a significant financial interest in APDM, a company that may have a commercial interest in the results of this research and technology.

649.17 **F.B. Horak:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); APDM Board; OHSU patents.

651.09 **A. Machado:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); ntElect Medical, ATI, Cardionomics, Boston Scientific. F. Consulting Fees (e.g., advisory boards); IntElect Medical, Monteris, Boston Scientific.

652.09 **S.L. DeJong:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Foundation for Physical Therapy.

653.04 **S.D. Hiatt:** A. Employment/Salary (full or part-time):; Ripple, Salt Lake City, UT. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ripple, Salt Lake City, UT. **A.M. Wilder:** A. Employment/Salary (full or part-time):; Ripple, Salt Lake City, UT. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ripple, Salt Lake City, UT. **D.A. McDonnall:** A. Employment/Salary (full or part-time):; Ripple, Salt Lake City, UT. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ripple, Salt Lake City, UT. **D.R. Merrill:** A. Employment/Salary (full or part-time):; Ripple, Salt Lake City, UT. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ripple, Salt Lake City, UT. **K.S. Guillory:** A. Employment/Salary (full or part-time):; Ripple, Salt Lake City, UT. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ripple, Salt Lake City, UT.

ABSTRACT NUMBER STATEMENT

653.08 **M. Armenta Salas:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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-5R01NS063372. **S.I. Helms Tillery:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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-5R01NS053372.

657.07 **H.H. Ruiz:** A. Employment/Salary (full or part-time):; Regeneron Pharmaceutical INC. **L.A. Cortes-Burgos:** A. Employment/Salary (full or part-time):; Regeneron Pharmaceutical INC. **M.M. Drost:** A. Employment/Salary (full or part-time):; Regeneron Pharmaceutical INC. **L.E. Macdonald:** A. Employment/Salary (full or part-time):; Regeneron Pharmaceutical INC. **S.D. Croll:** A. Employment/Salary (full or part-time):; Regeneron Pharmaceutical INC.

657.12 **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.; NIH grants DK051369, DK060481, DK065989, P20 RR16435.

657.15 **M. Klinger:** A. Employment/Salary (full or part-time):; Catamount Research & Development. **R. Simpson:** A. Employment/Salary (full or part-time):; Catamount Research & Development. **G.M. Herrera:** A. Employment/Salary (full or part-time):; Catamount Research & Development.

657.16 **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.; Medtronic Inc.

657.18 **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.

658.04 **D.A. Johnson:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc. **S. Gabbert:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc. **H. Harmon:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc. **E.L. Akers:** A. Employment/Salary (full or part-time):; Pinnacle Technology, Inc.

658.13 **E. Shanks:** A. Employment/Salary (full or part-time):; Lilly. **A. McCarthy:** A. Employment/Salary (full or part-time):; Lilly. **D.M. Edgar:** A. Employment/Salary (full or part-time):; Lilly. **K. Wafford:** A. Employment/Salary (full or part-time):; Lilly. **W. Seidel:** A. Employment/Salary (full or part-time):; Lilly.

658.19 **M.D. Schwartz:** C. Other Research Support (receipt of drugs, supplies, equipment or other in-kind support); F. Hoffman-La Roche, Ltd. **A.M. Thomas:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche, Ltd. **A. Harmeier:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche, Ltd. **J. Moreau:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche, Ltd. **J.G. Wettstein:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche, Ltd. **M.C. Hoener:** A. Employment/Salary (full or part-time):; F. Hoffmann-La Roche, Ltd.

658.25 **S. Veasey:** F. Consulting Fees (e.g., advisory boards); Dr. Veasey is on the Galleon Pharmaceutical Scientific Advisory Board.

660.06 **C. North:** A. Employment/Salary (full or part-time):; Virginia Polytechnic Institute and State University. **A.D. Cate:** A. Employment/Salary (full or part-time):; Virginia Polytechnic Institute and State University.

ABSTRACT NUMBER STATEMENT

660.19 **S.C. Mednick:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; K01 MH080992.

660.22 **H. Takeuchi:** A. Employment/Salary (full or part-time):; full.

661.12 **B.M. Steemers:** A. Employment/Salary (full or part-time):; Donders Institute for Brain, Cognition and Behaviour; Radboud Univ. Nijmegen. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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 Research Council (ERC-StG RECONTEXT). **A. Vicente Grabovetsky:** A. Employment/Salary (full or part-time):; Donders Institute for Brain, Cognition and Behaviour; Radboud Univ. Nijmegen. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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 Research Council (ERC-StG RECONTEXT). **T. Navarro Schroeder:** A. Employment/Salary (full or part-time):; Donders Institute for Brain, Cognition and Behaviour; Radboud Univ. Nijmegen. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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 Research Council (ERC-StG RECONTEXT). **C.F. Doeller:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending 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 Research Council (ERC-StG RECONTEXT).

662.11 **M. Mittner:** A. Employment/Salary (full or part-time):; Cognitive Science Center Amsterdam.

663.15 **B.L. Miller:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Novartis. D. Fees for Non-CME Services Received Directly from Commercial Interest or their Agents' (e.g., speakers' bureaus); Novartis, Pfizer, Inc. F. Consulting Fees (e.g., advisory boards); Lundbeck, Inc., Elan Corporation, Allon Therapeutics, Inc.

663.17 **N. Amir:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; National Institutes of Health. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Cognitive Retraining Technologies.

665.15 **S. Okamoto-Barth:** A. Employment/Salary (full or part-time):; Maastricht University. **M. Strobel:** A. Employment/Salary (full or part-time):; Maastricht University. **A. Heinecke:** A. Employment/Salary (full or part-time):; Brain Innovation B. V. **H. Breman:** A. Employment/Salary (full or part-time):; Bain Innovation B. V. **R. Goebel:** A. Employment/Salary (full or part-time):; Maastricht University. **A. Riedl:** A. Employment/Salary (full or part-time):; Maastricht University.

665.17 **R.A. Koeppe:** F. Consulting Fees (e.g., advisory boards); Avid Corp., Merck, Johnson & Johnson.

ABSTRACT NUMBER STATEMENT

666.02 **V. Estrada:** A. Employment/Salary (full or part-time):; MBRS-RISE (NIH-funded training program). B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Study supported by NIH grant. **N. Wicha:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Study supported by NIH grant.

666.14 **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. **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. **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.

666.15 **R. Hester:** A. Employment/Salary (full or part-time):; University of Melbourne.

670.24 **E.J. Markus:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NIA, NSF, UCRF. **D. Marrone:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; NSERC, OMHF, NARSAD.

671.06 **M. Peters:** A. Employment/Salary (full or part-time):; Dart Neuroscience, LLC. **J. Stanley:** A. Employment/Salary (full or part-time):; Dart Neuroscience, LLC. **J. Lapira:** A. Employment/Salary (full or part-time):; Dart Neuroscience, LLC. **D. Wheeler:** A. Employment/Salary (full or part-time):; Dart Neuroscience, LLC. **T. Tully:** A. Employment/Salary (full or part-time):; Dart Neuroscience, LLC.

ABSTRACT NUMBER STATEMENT

673.11 **S. Lu:** A. Employment/Salary (full or part-time):; Azevan Pharmaceuticals, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Azevan Pharmaceuticals, Inc. **N.G. Simon:** B. Contracted Research/ Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Azevan Pharmaceuticals, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/ patent holder, excluding diversified mutual funds); Azevan Pharmaceuticals, Inc. **M.J. Brownstein:** A. Employment/ Salary (full or part-time):; Azevan Pharmaceuticals, 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.; Azevan Pharmaceuticals, Inc. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Azevan Pharmaceuticals, Inc.

674.07 **M. Nedelman:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging. **P. Kulkarni:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Ekam Imaging. **C.F. Ferris:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Animal Imaging Research, Ekam Imaging.

676.10 **X. Cui:** A. Employment/Salary (full or part-time):; SAGE Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SAGE Labs. **A. Brown:** A. Employment/Salary (full or part-time):; SAGE Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SAGE Labs. **E. Kouranova:** A. Employment/ Salary (full or part-time):; SAGE Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SAGE Labs. **A. McCoy:** A. Employment/Salary (full or part-time):; SAGE Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SAGE Labs. **K. Forbes:** A. Employment/Salary (full or part-time):; SAGE Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SAGE Labs. **E. Weinstein:** A. Employment/Salary (full or part-time):; SAGE Labs. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); SAGE Labs.

676.13 **K.M. Gamber:** A. Employment/Salary (full or part-time):; SAGE Labs. **E.V. Kouranova:** A. Employment/Salary (full or part-time):; SAGE Labs. **A. McCoy:** A. Employment/Salary (full or part-time):; SAGE Labs. **K. Forbes:** A. Employment/ Salary (full or part-time):; SAGE Labs. **A. Brown:** A. Employment/Salary (full or part-time):; SAGE Labs. **E. Weinstein:** A. Employment/Salary (full or part-time):; SAGE Labs. **X. Cui:** A. Employment/Salary (full or part-time):; xiaoxia.cui@sageresearchlabs,com.

ABSTRACT NUMBER STATEMENT

676.18 **B. Hanson:** A. Employment/Salary (full or part-time):; Life Technologies. **M.S. Piekarczyk:** A. Employment/Salary (full or part-time):; Life Technologies. **T. Sampsell-Barron:** A. Employment/Salary (full or part-time):; Life Technologies. **K. Bi:** A. Employment/Salary (full or part-time):; Life Technologies. **Y.A. Huang:** A. Employment/Salary (full or part-time):; The Parkinson's Institute and Clinical Center. **M. Vangipuram:** A. Employment/Salary (full or part-time):; The Parkinson's Institute and Clinical Center. **J. Westfall:** A. Employment/Salary (full or part-time):; The Parkinson's Institute and Clinical Center. **S. Hermanson:** A. Employment/Salary (full or part-time):; Life Technologies. **C. Lebakken:** A. Employment/Salary (full or part-time):; Life Technologies. **L.J. Reichling:** A. Employment/Salary (full or part-time):; Life Technologies. **D.R. Piper:** A. Employment/Salary (full or part-time):; Life Technologies. **M. Vemuri:** A. Employment/Salary (full or part-time):; Life Technologies. **Y. Yan:** A. Employment/Salary (full or part-time):; Life Technologies. **J.W. Langston:** A. Employment/Salary (full or part-time):; The Parkinson's Institute and Clinical Center. **K. Vogel:** A. Employment/Salary (full or part-time):; Life Technologies. **B. Schuele:** A. Employment/Salary (full or part-time):; The Parkinson's Institute and Clinical Center.

676.22 **X. Jiang:** A. Employment/Salary (full or part-time):; Molecular Devices, LLC, ChanTest Corporation. **C. Crittenden:** A. Employment/Salary (full or part-time):; Molecular Devices, LLC. **X. Du:** A. Employment/Salary (full or part-time):; ChanTest Corporation. **Y. Kuryshev:** A. Employment/Salary (full or part-time):; ChanTest Corporation. **E. Duzic:** A. Employment/Salary (full or part-time):; ChanTest Corporation.

676.30 **J.D. Randall:** A. Employment/Salary (full or part-time):; Quanterix Corporation. **D. Wilson:** A. Employment/Salary (full or part-time):; Quanterix Corporation. **K. Minnehan:** A. Employment/Salary (full or part-time):; Quanterix Corporation. **M. Gardel:** A. Employment/Salary (full or part-time):; Quanterix Corporation. **B. Pink:** A. Employment/Salary (full or part-time):; Quanterix Corporation. **L. York:** A. Employment/Salary (full or part-time):; Quanterix Corporation. **S. Sullivan:** A. Employment/Salary (full or part-time):; Quanterix Corporation. **R. Meyer:** A. Employment/Salary (full or part-time):; Quanterix Corporation. **B. Flaherty:** A. Employment/Salary (full or part-time):; Quanterix Corporation. **C. Jacques:** A. Employment/Salary (full or part-time):; Quanterix Corporation.

ABSTRACT NUMBER STATEMENT

677.07 **P.R. Mouton:** A. Employment/Salary (full or part-time):; Stereology Resource Center. B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; PI of SBIR (NIH) grant. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent holder. Other; President & CEO, Stereology Resource Center. **B. Chaudhury:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; SBIR (NIH) grant. **D. Goldgof:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; SBIR (NIH) grant. E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); patent holder. **H.A. Phoulady:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; SBIR (NIH) grant. **L.O. Hall:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; SBIR (NIH) grant.

677.15 **J. Li:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **K. Ishiwari:** A. Employment/Salary (full or part-time):; NUIM. **M.W. Conway:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **J. Huxter:** A. Employment/Salary (full or part-time):; Eli Lilly & co. **J.P. Lowry:** A. Employment/Salary (full or part-time):; NUIM. **M. Tricklebank:** A. Employment/Salary (full or part-time):; Eli Lilly & Co. **G. Gilmour:** A. Employment/Salary (full or part-time):; Eli Lilly & Co.

677.17 **A. Seehaus:** A. Employment/Salary (full or part-time):; Maastricht University. **A. Roebroeck:** A. Employment/Salary (full or part-time):; Maastricht University. **M. Bastiani:** A. Employment/Salary (full or part-time):; Maastricht University. **H. Bratzke:** A. Employment/Salary (full or part-time):; Goethe-University Frankfurt a. M. **N. Lori:** A. Employment/Salary (full or part-time):; University of Coimbra. **A. Vilanova:** A. Employment/Salary (full or part-time):; TU Eindhoven. **R. Goebel:** A. Employment/Salary (full or part-time):; Maastricht University. **R. Galuske:** A. Employment/Salary (full or part-time):; TU Darmstadt.

677.25 **J. Price:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Hudson-Price Designs, LLC. **D. Milkie:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Coleman Technologies, Inc. **D. Peale:** B. Contracted Research/Research Grant (principal investigator for a drug study, collaborator or consultant and pending and current grants). If you are a PI for a drug study, report that research relationship even if those funds come to an institution.; Integral Physics to Engineering, LLC.

ABSTRACT NUMBER | STATEMENT

677.29 **L.B. Cohen:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); RedShirt Imaging. **J. Lazar:** E. Ownership Interest (stock, stock options, royalty, receipt of intellectual property rights/patent holder, excluding diversified mutual funds); Innovative Bioimaging, L.L.C.

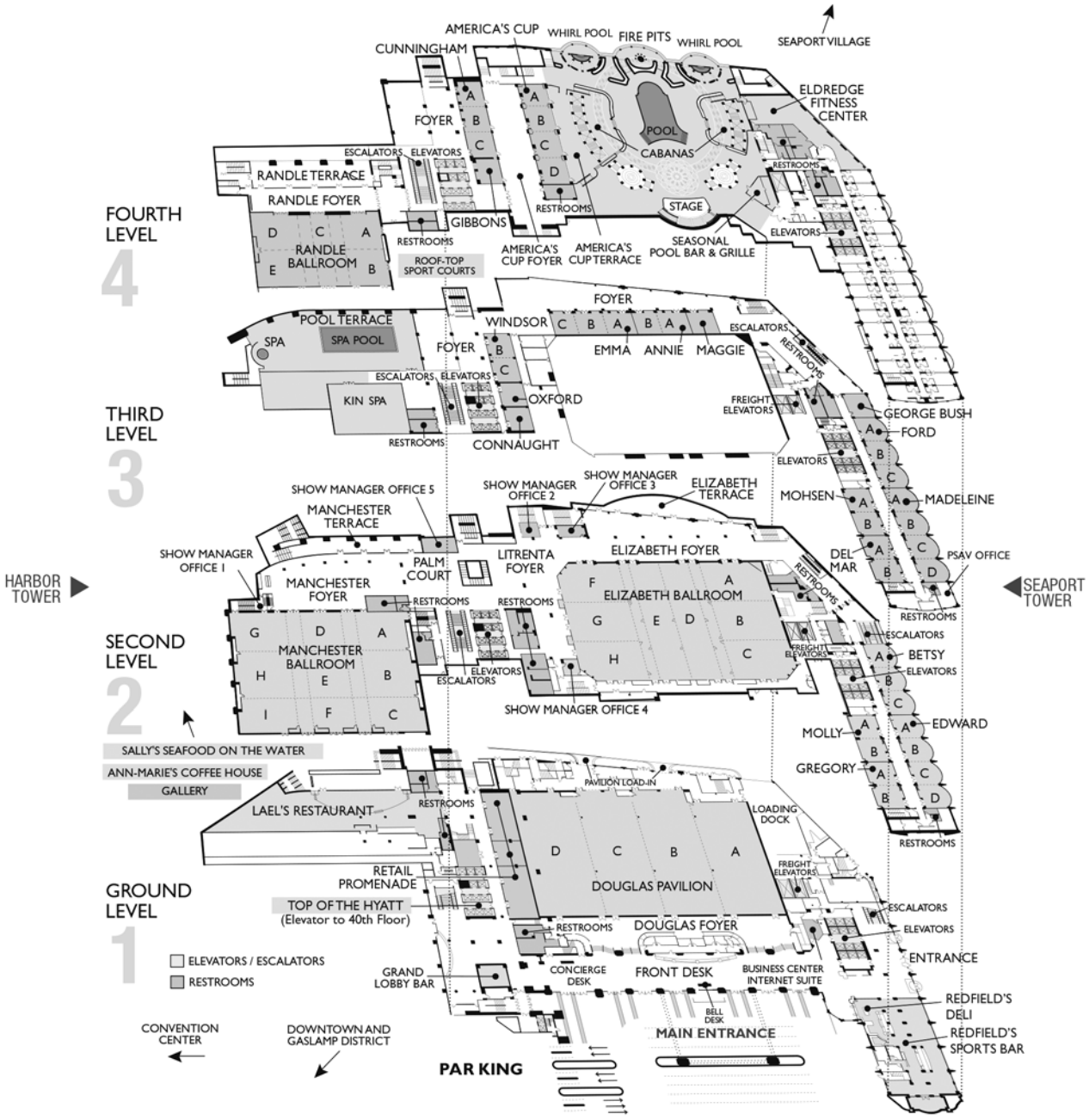
678.20 **H. Polder:** A. Employment/Salary (full or part-time):; npi electronic GmbH (LLC). **J. Looser:** A. Employment/Salary (full or part-time):; npi electronic GmbH (LLC).

679.09 **K. Jung:** A. Employment/Salary (full or part-time):; Department of Pediatrics, The University of Texas Health Science Center at Houston. **H. Hwang:** A. Employment/Salary (full or part-time):; Department of Psychology, McGill University. **J. Juranek:** A. Employment/Salary (full or part-time):; Department of Pediatrics, The University of Texas Health Science Center at Houston. **T.S. Woodward:** A. Employment/Salary (full or part-time):; BC Mental Health and Additions Research Institute (BCMHARI).

ABSTRACT NUMBER | STATEMENT

Hotel Floor Plans

Manchester Grand Hyatt

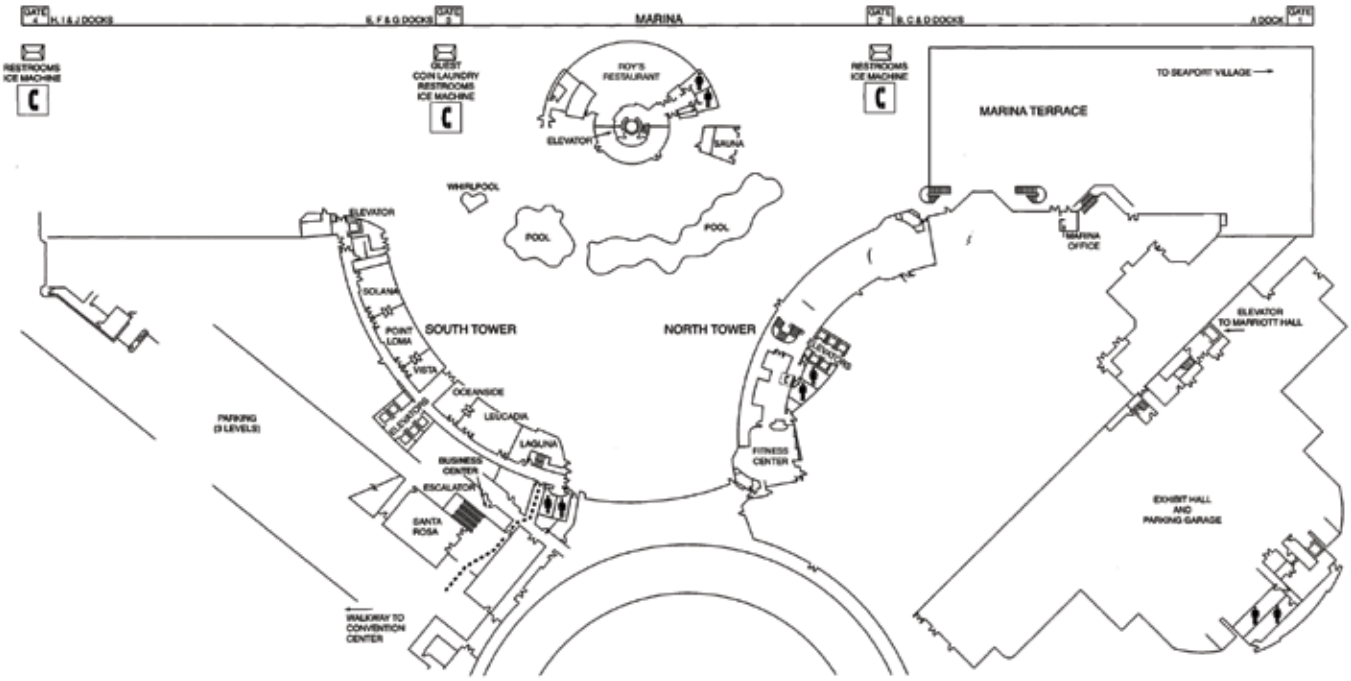


Marriott Marquis & Marina

South Tower

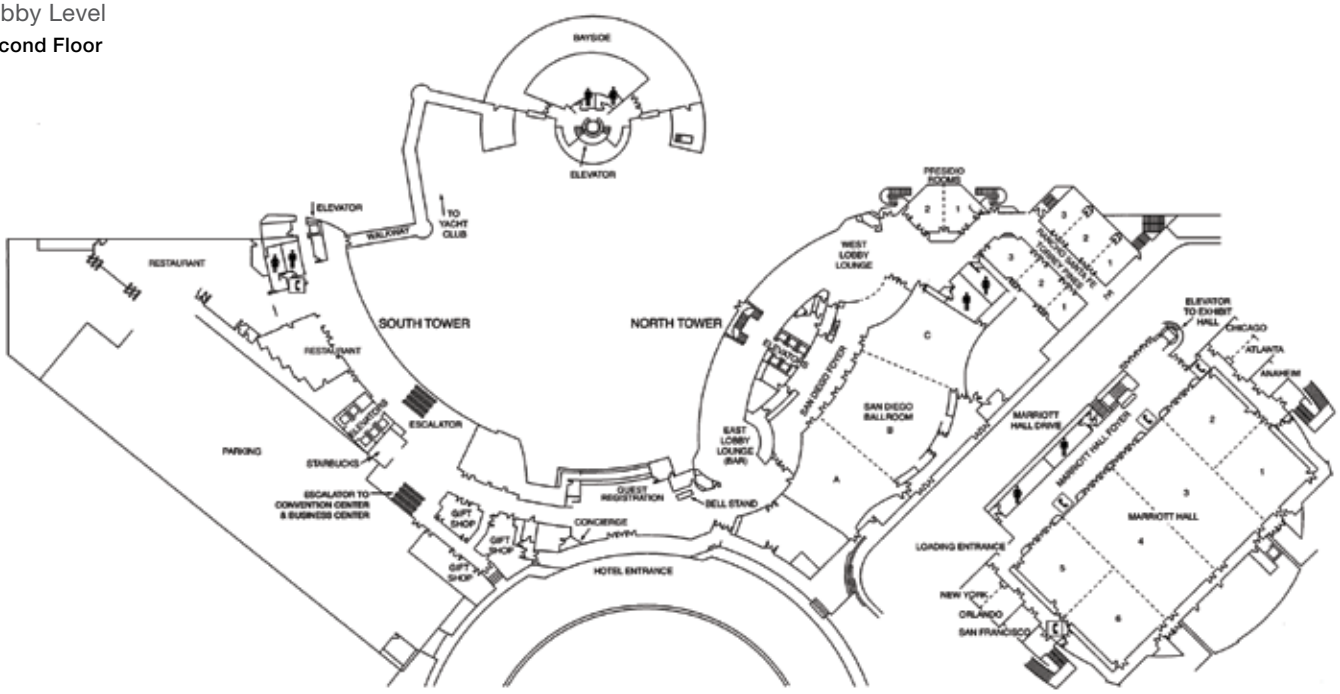
North Tower

Level 1



Lobby Level

Second Floor



Hotel Floor Plans

Marriott Marquis & Marina (continued)

South Tower

1st Floor
Laguna
Leucadia
Oceanside
Point Loma
Santa Rosa
Solana
Vista

2nd Floor
Bayside

3rd Floor
Balboa
Cardiff
Carlsbad
Del Mar
Encinitas
Marina Ballroom D–G
Miramar
Mission Hills
Palomar

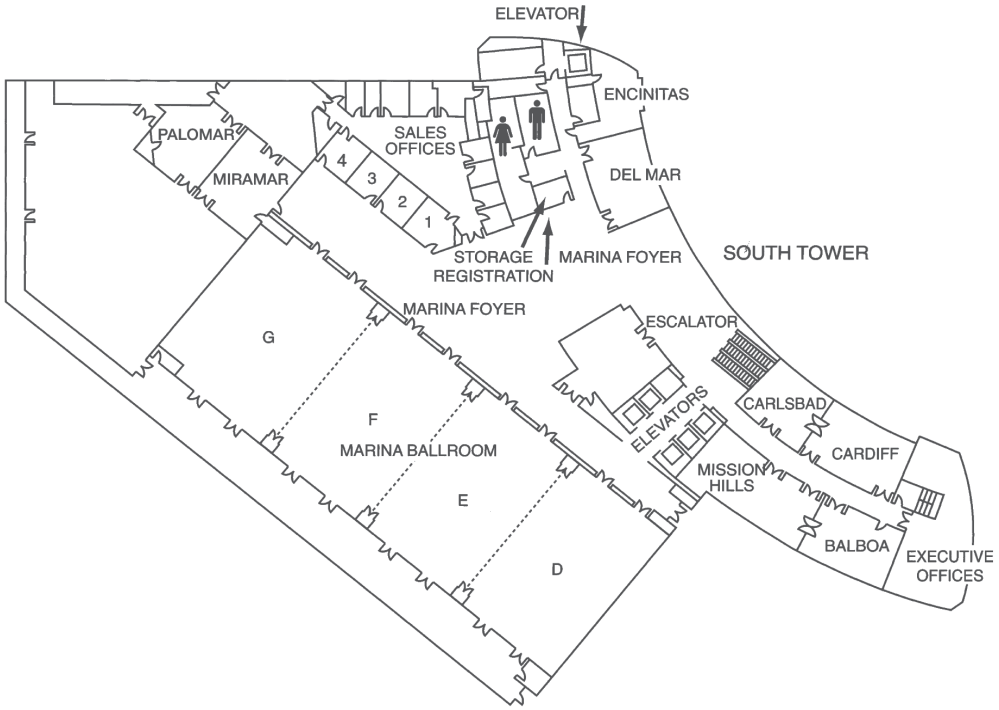
4th Floor
Catalina
Coronado
Dana Point
La Costa
La Jolla
La Mesa
Malibu
Newport Beach

North Tower

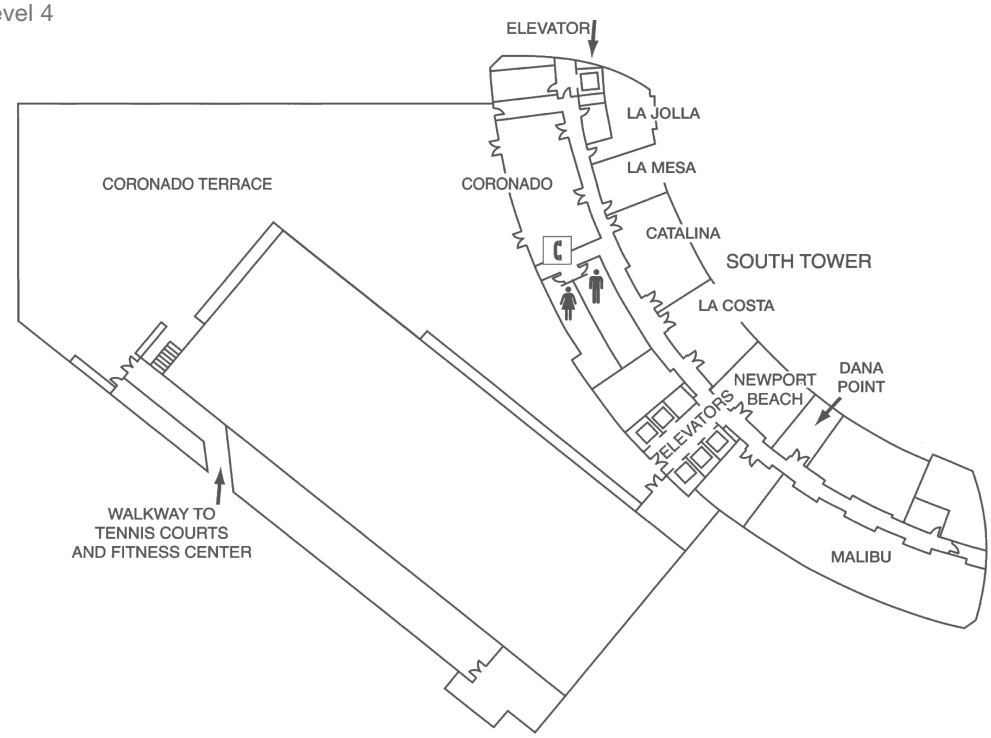
Lobby Level
Presidio 1–2
Rancho Santa Fe 1–3
San Diego Ballrooms A–C
Torrey Pines 1–3

Marriott Hall
Anaheim
Atlanta
Chicago
Marriott Hall 1–6
New York
Orlando
San Francisco

Level 3

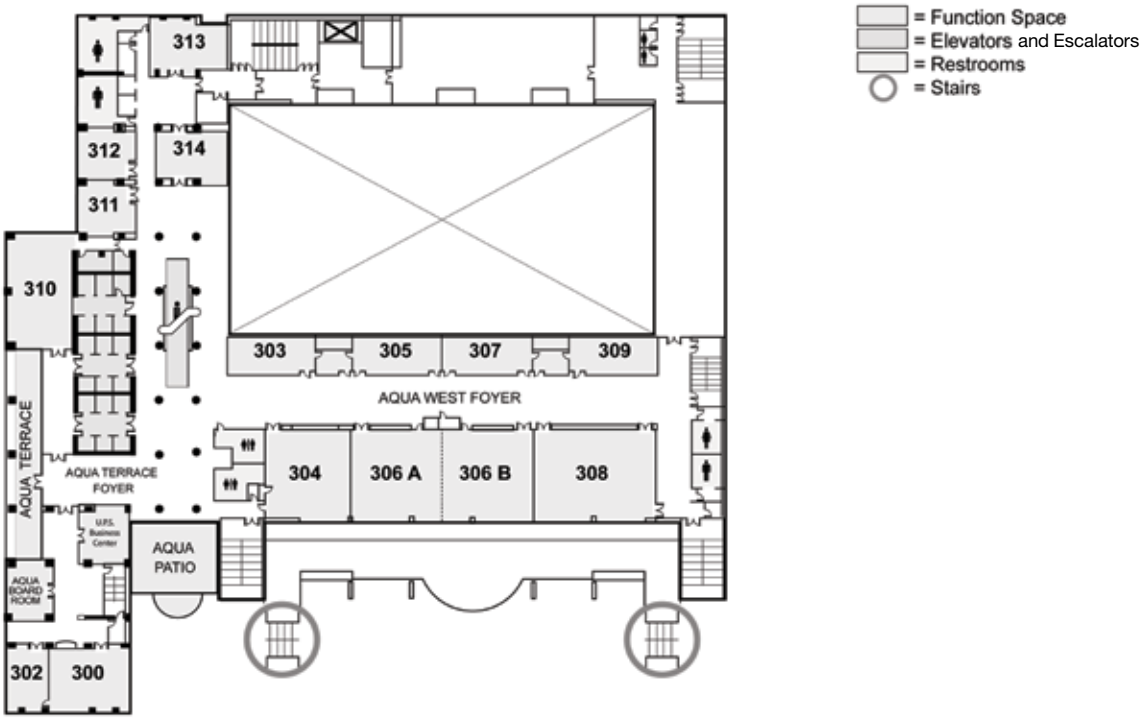


Level 4

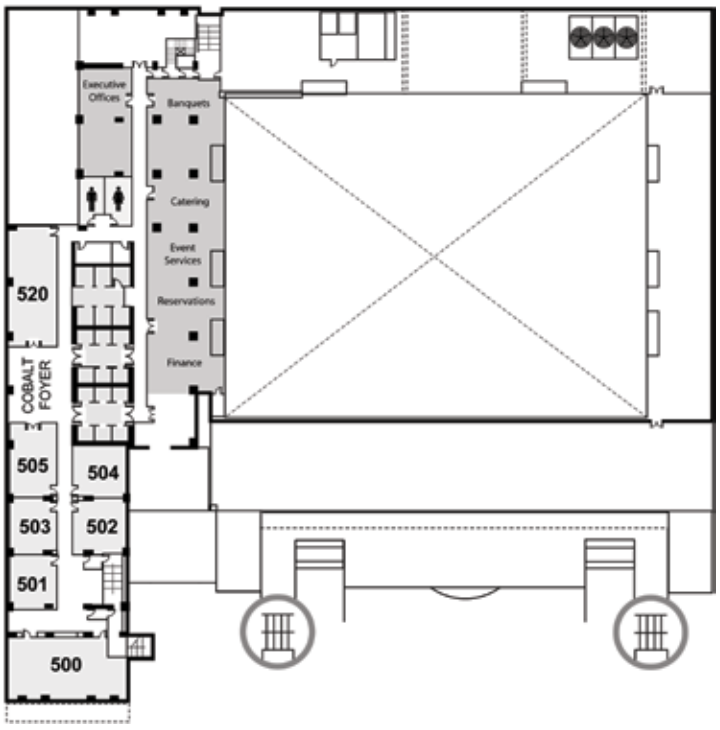


Hilton San Diego Bayfront

Aqua Level



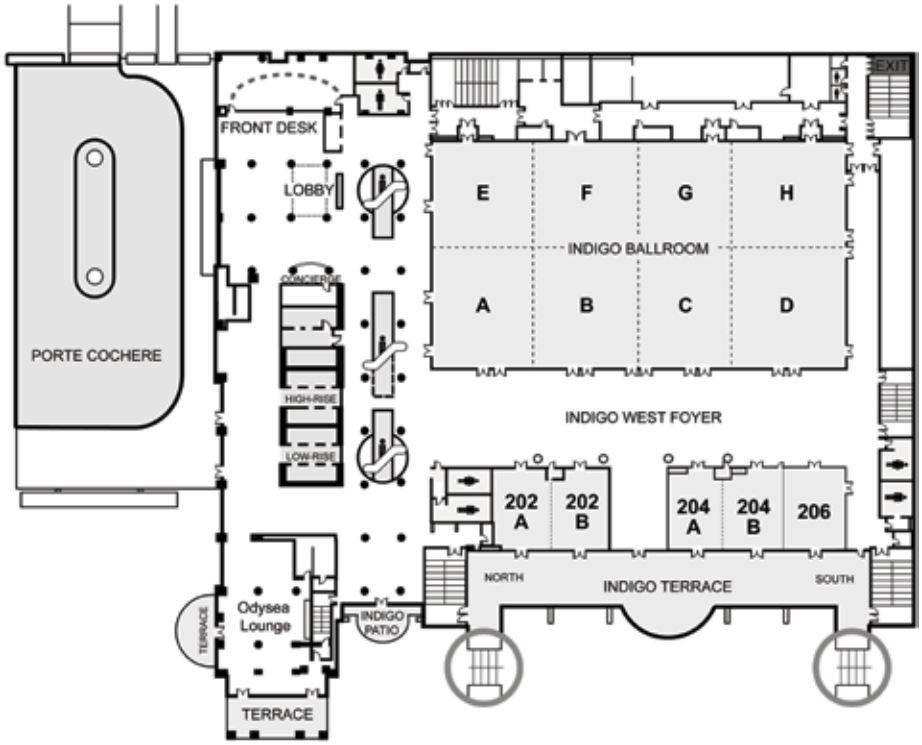
Cobalt Level



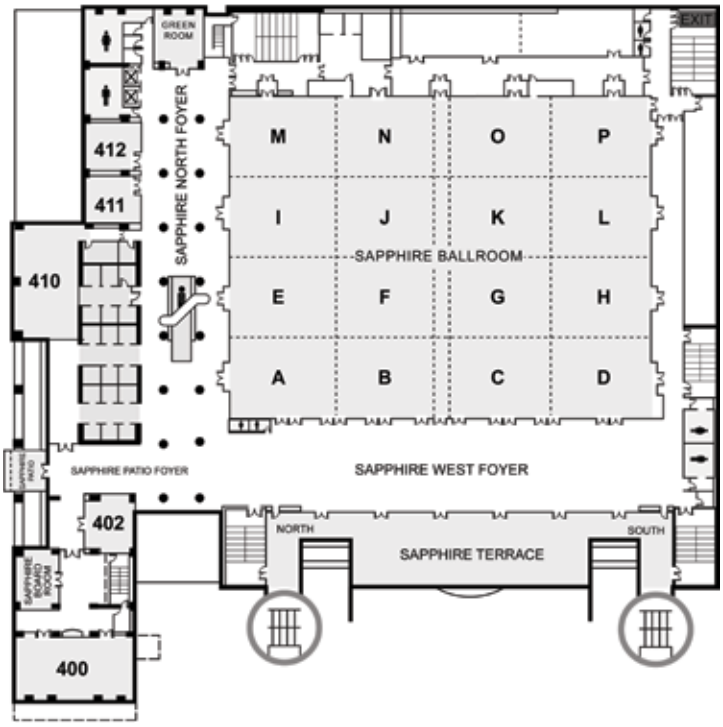
Hotel Floor Plans

Hilton Dan Diego Bayfront

Indigo Level



Sapphire Level



= Function Space
= Elevators and Escalators
= Restrooms
= Stairs

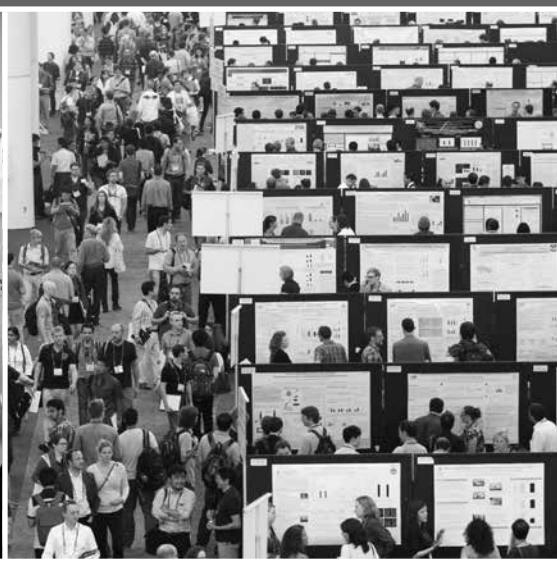
Automatic Membership Renewal **Now Available**

SOCIETY *for* NEUROSCIENCE

Sign Up for Automatic Membership Renewal

- **Save time** — Lessen your to do list
- **Go green** — Eliminate paper invoices and their impact on the environment
- **Uninterrupted membership** — Never miss an issue of *The Journal of Neuroscience* or any of your valuable member benefits
- **Bonus Day** — Ensure access to your choice of prime housing for the annual meeting before the opening of advance member registration
- **Support the field** — Know your dues enhance professional development initiatives, public outreach, advocacy, and more

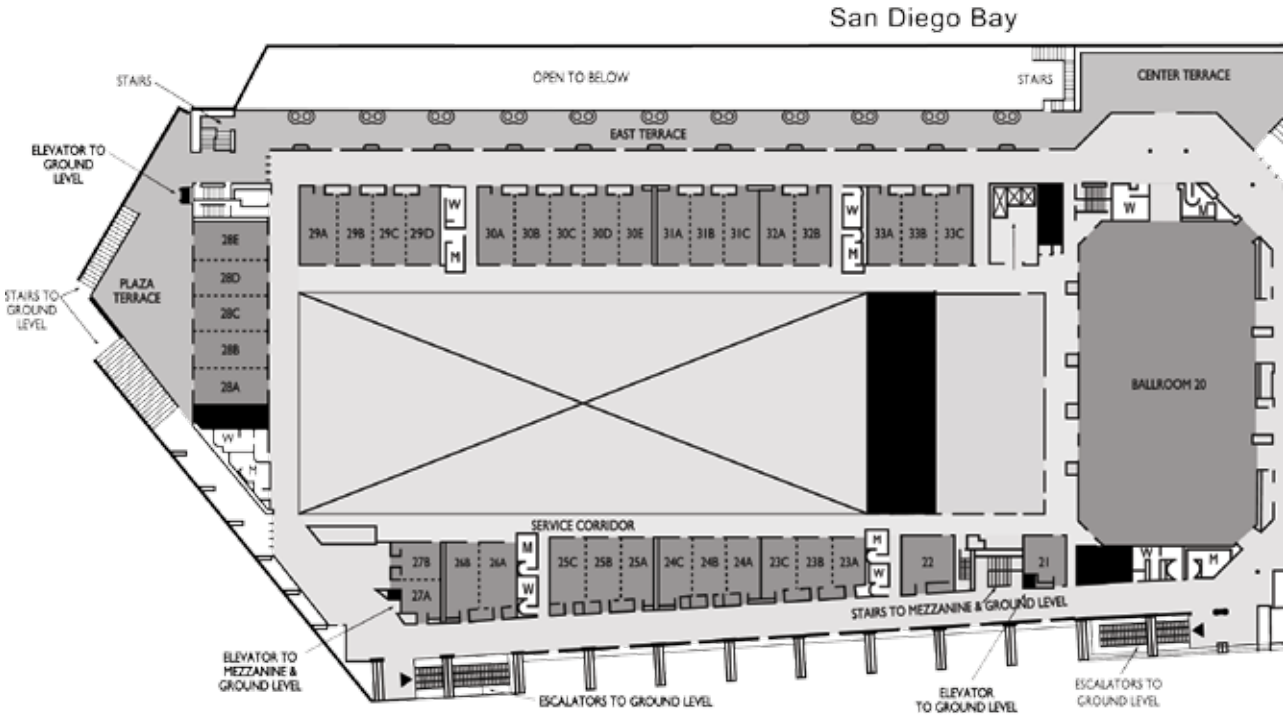
Sign up today and you are entered for multiple chances to win a $250 Amazon® gift card!



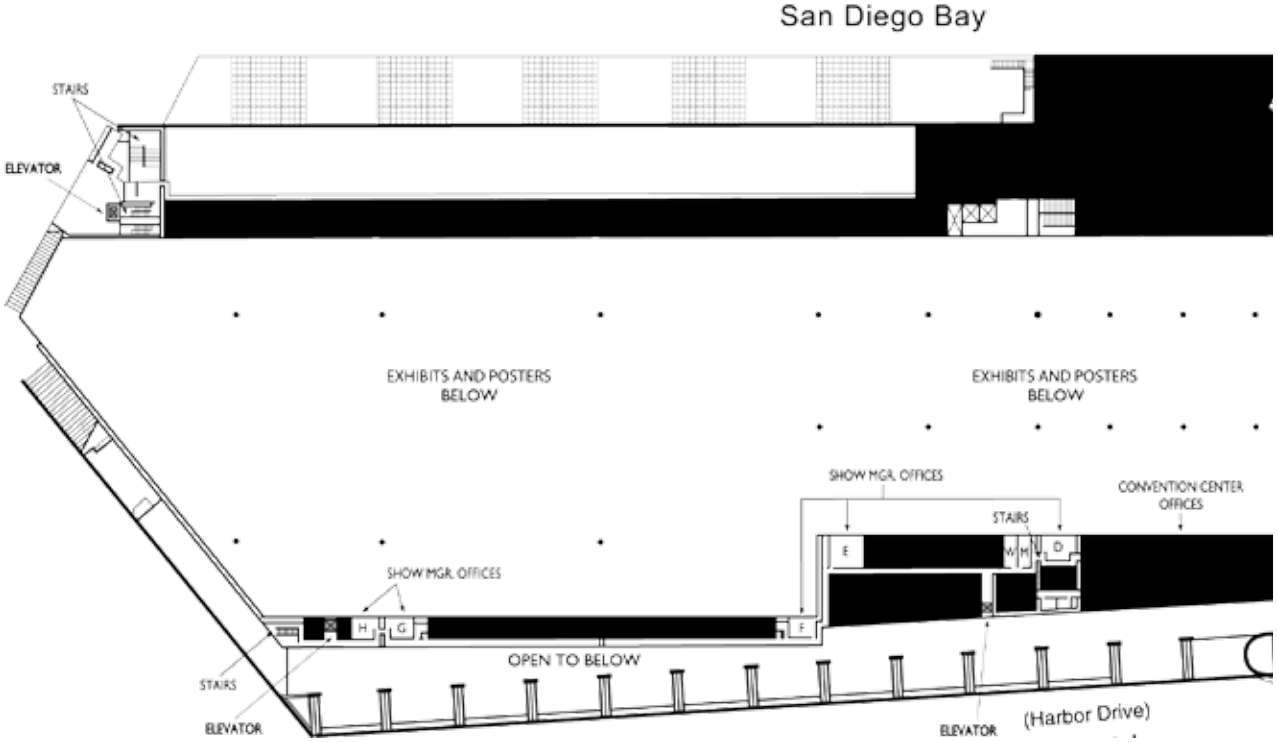
Visit the SfN Booth #2013 in the Exhibit Hall —
first 50 to renew their membership for 2014 receive a free gift

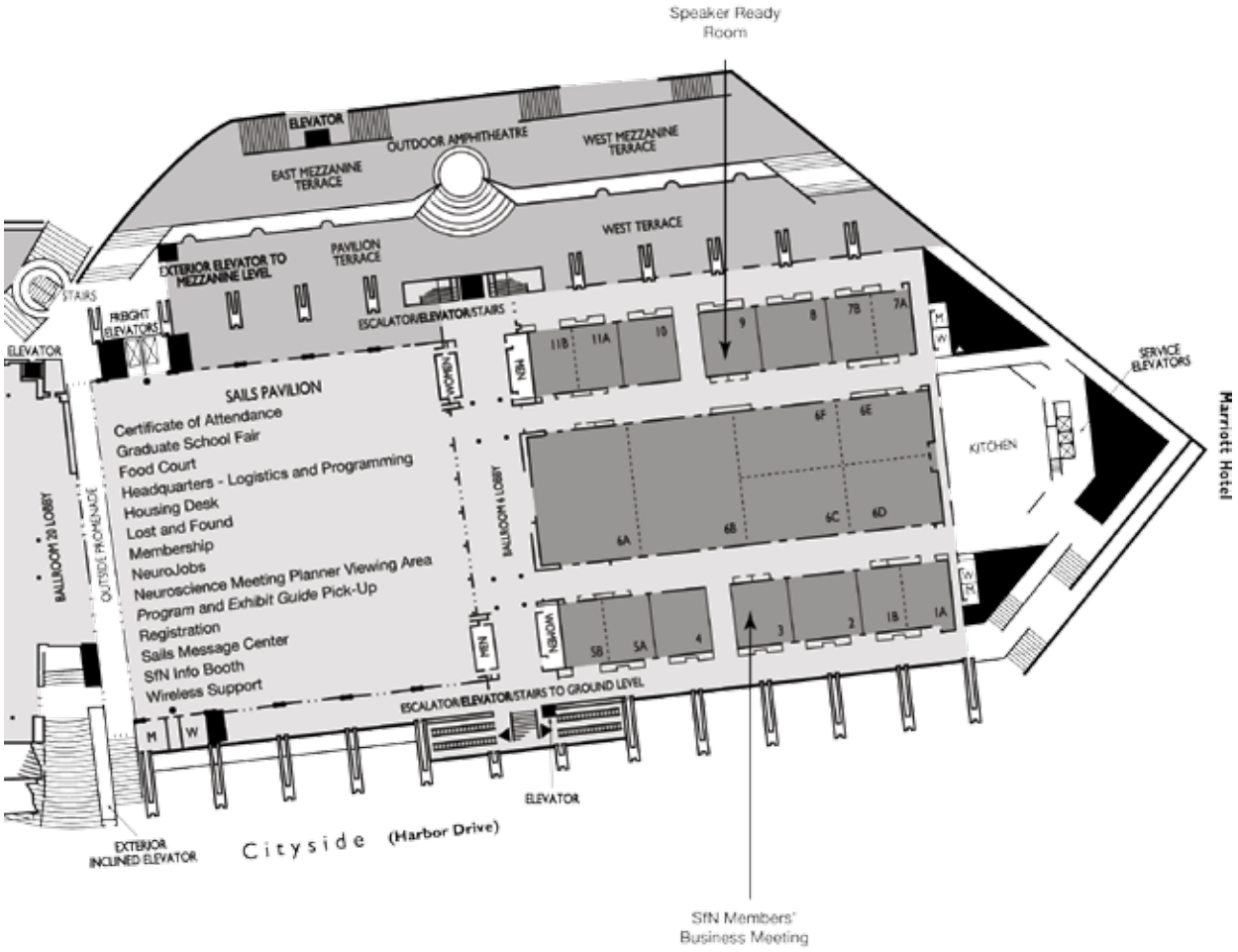
Convention Center Floor Plans

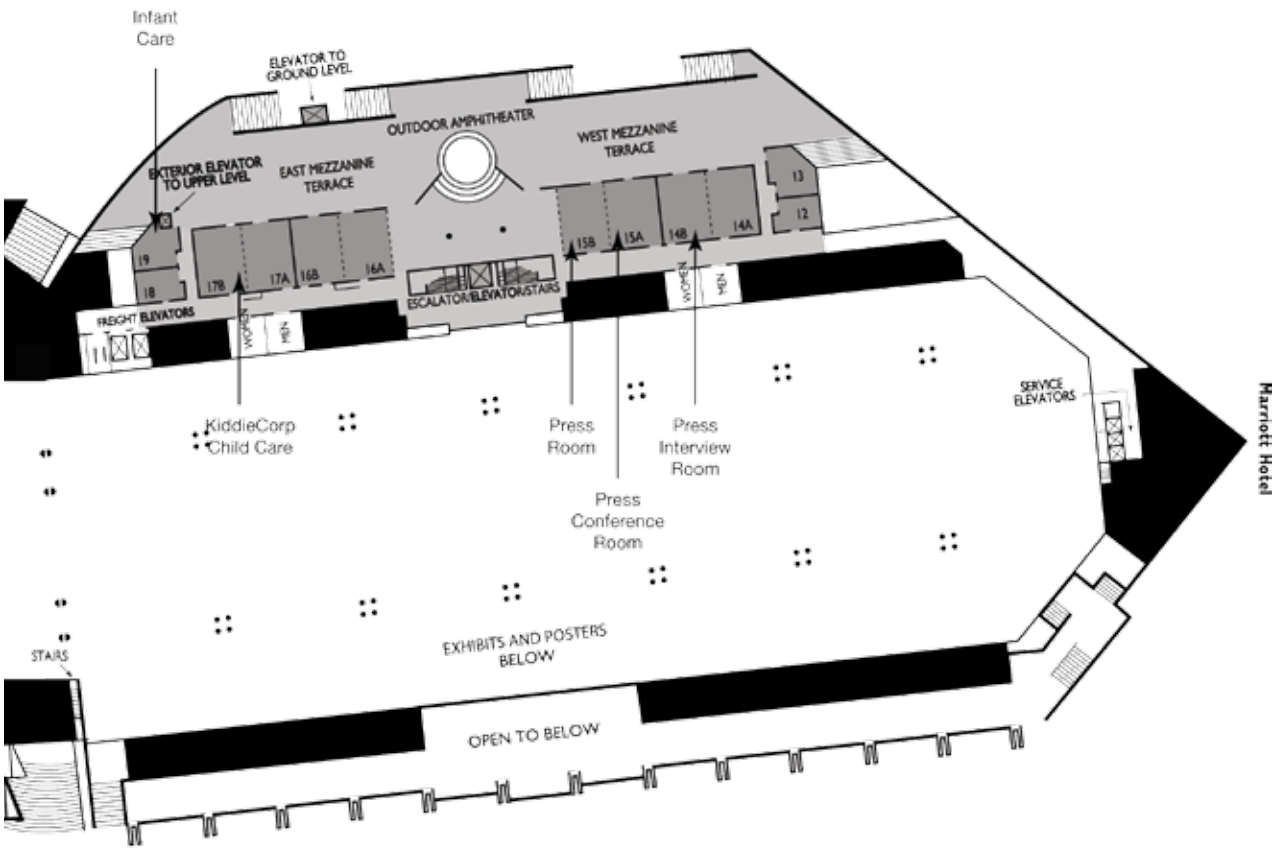
San Diego Convention Center Floor Plan, Upper Level



San Diego Convention Center Floor Plan, Mezzanine Level




Speaker Ready Room
ELEVATOR
OUTDOOR AMPHITHEATRE
EAST MEZZANINE TERRACE
WEST MEZZANINE TERRACE
WEST TERRACE
PAVILION TERRACE
EXTERIOR ELEVATOR TO MEZZANINE LEVEL
STAIRS
FREIGHT ELEVATORS
ESCALATOR/ELEVATOR/STAIRS
SERVICE ELEVATORS
Marriott Hotel
KITCHEN
SAILS PAVILION
Certificate of Attendance
Graduate School Fair
Food Court
Headquarters - Logistics and Programming
Housing Desk
Lost and Found
Membership
NeuroJobs
Neuroscience Meeting Planner Viewing Area
Program and Exhibit Guide Pick-Up
Registration
Sails Message Center
SfN Info Booth
Wireless Support
BALLROOM 20 LOBBY
OUTSIDE PROMENADE
BALLROOM 6 LOBBY
WOMEN
MEN
ESCALATOR/ELEVATOR/STAIRS TO GROUND LEVEL
ELEVATOR
EXTERIOR INCLINED ELEVATOR
Cityside (Harbor Drive)
SfN Members' Business Meeting


Infant Care
ELEVATOR TO GROUND LEVEL
OUTDOOR AMPHITHEATER
WEST MEZZANINE TERRACE
EXTERIOR ELEVATOR TO UPPER LEVEL
EAST MEZZANINE TERRACE
FREIGHT ELEVATORS
ESCALATOR/ELEVATOR/STAIRS
WOMEN
MEN
SERVICE ELEVATORS
Marriott Hotel
KiddieCorp Child Care
Press Room
Press Interview Room
Press Conference Room
EXHIBITS AND POSTERS BELOW
STAIRS
OPEN TO BELOW

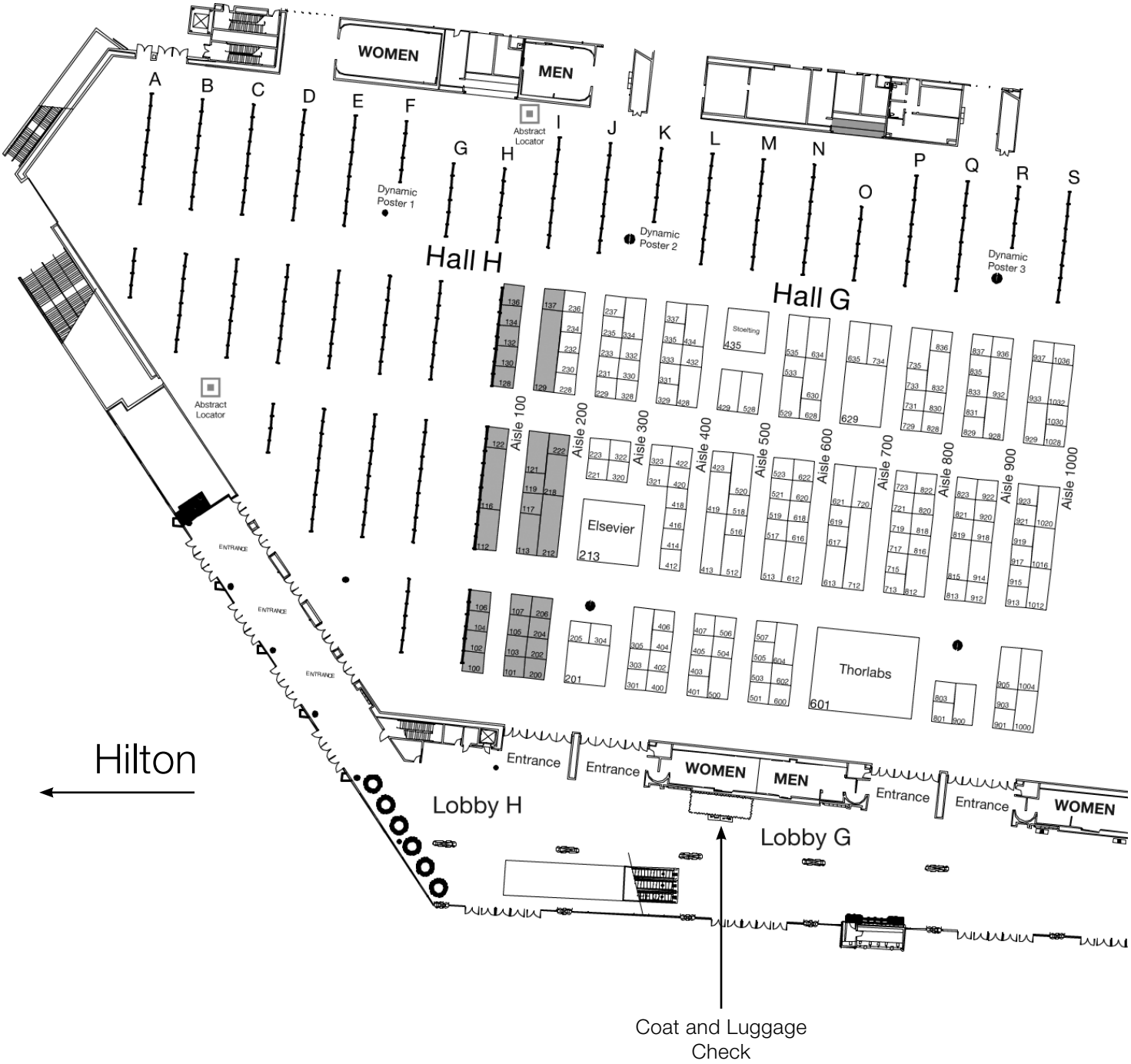
Convention Center Floor Plans

San Diego Convention Center Floor Plan, Exhibit Halls

San Diego Convention Center: Halls B-H
Meeting Dates: Nov. 9–13
Exhibit Dates: Nov. 10–13

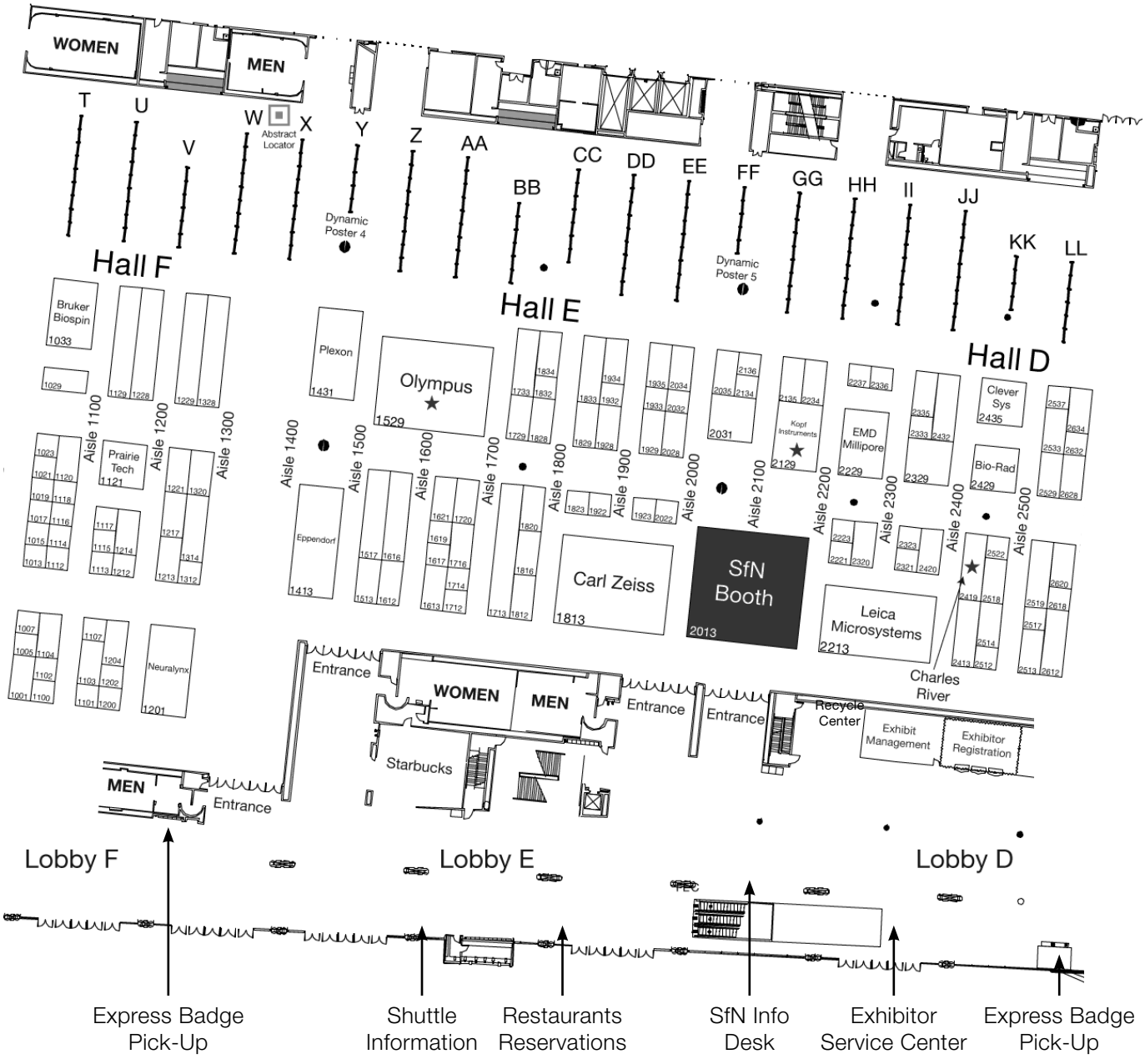
Hall entrances open at noon on Saturday, Nov. 9 and at 7 a.m. on Sunday, Nov. 10 to Wednesday, Nov. 13 for poster presenter setup. Poster sessions are open for all attendees at 1 p.m. on Saturday, Nov. 9 and 8 a.m. Sunday, Nov. 10 to Wednesday, Nov. 13.

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



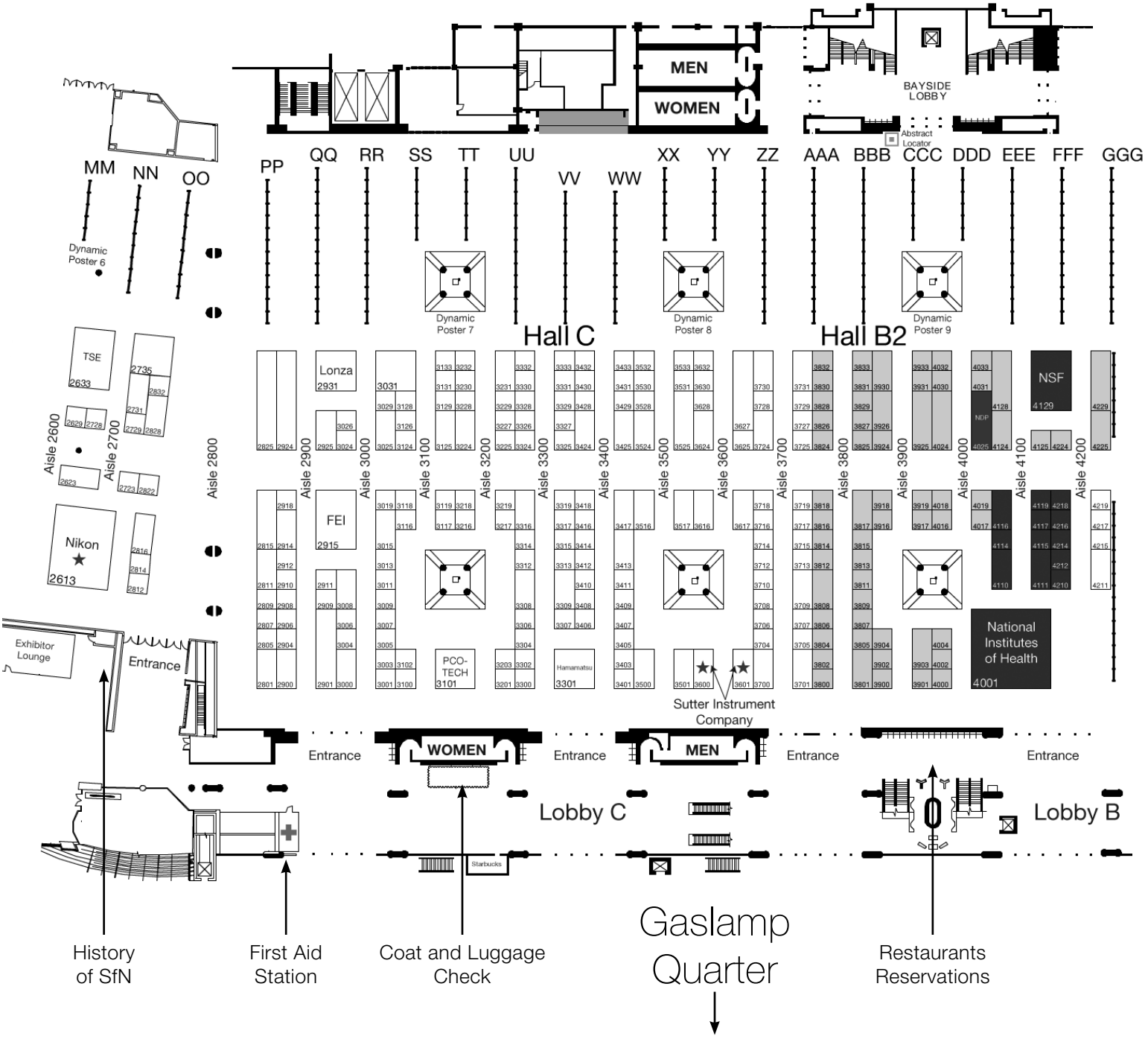
KEY

- ▣ Abstract Locators
- ■ Concession Areas
- ■ Institutions
- ■ Publishers
- ■ Nonprofits
- ★ Sustaining Associate Members



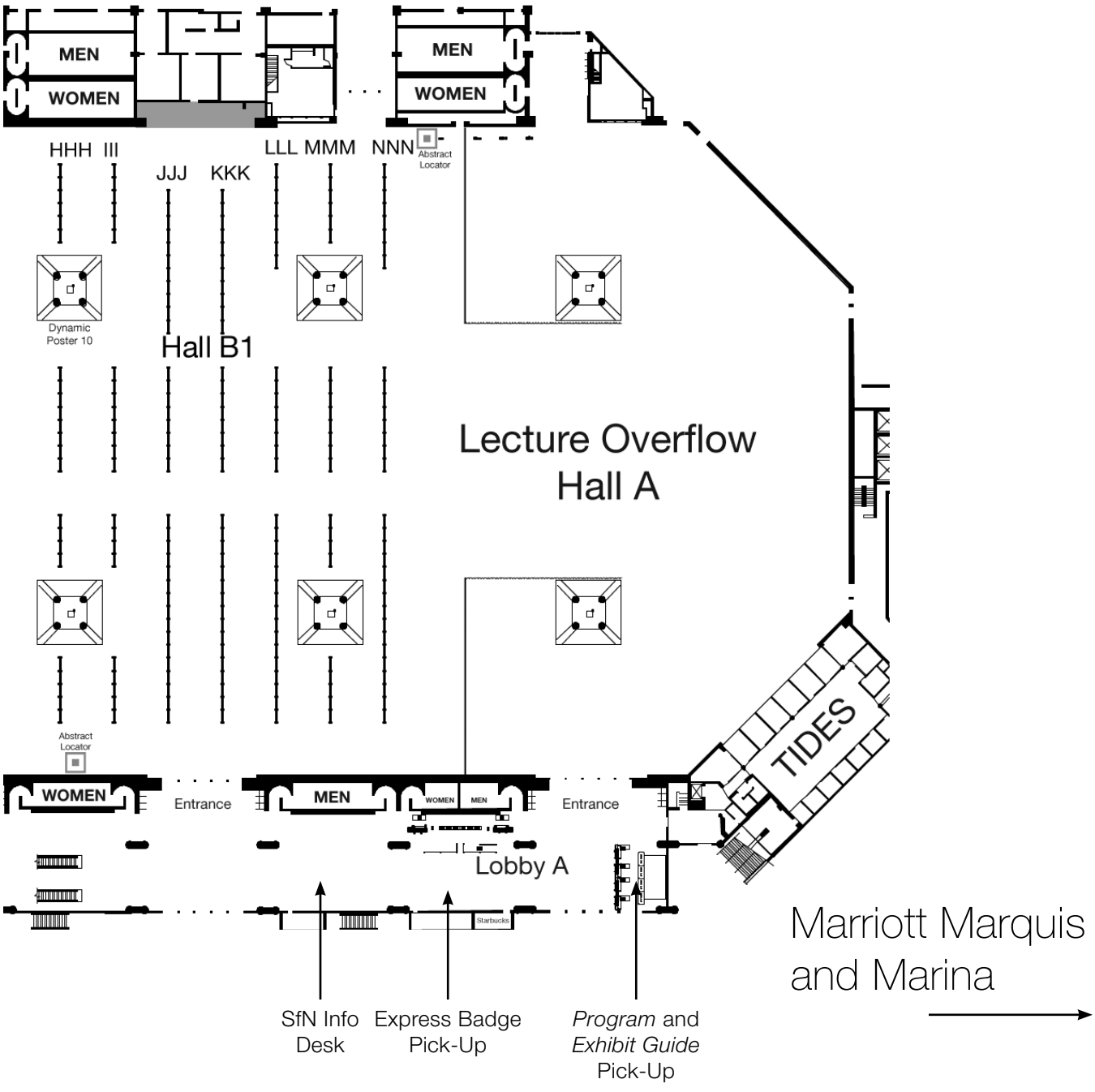
Convention Center Floor Plans

San Diego Convention Center Floor Plan, Exhibit Halls



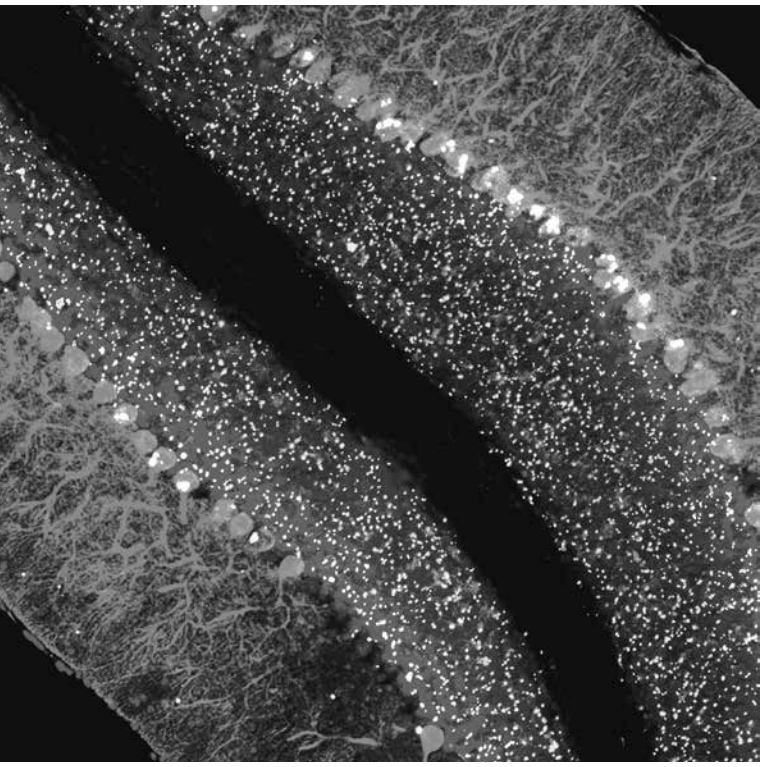
KEY

- ▣ Abstract Locators
- ■ Concession Areas
- ■ Institutions
- ■ Publishers
- ■ Nonprofits
- ★ Sustaining Associate Members



NEUROSCIENCE
2014

SEE YOU IN



WASHINGTON DC

November 15–19

SOCIETY *for* NEUROSCIENCE